

# **Trial of the draft Sustainability Assessment Protocol (August 2009)**

**By Manitoba Hydro**

**December 2009**

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# **Trial of the draft Sustainability Assessment Protocol by Manitoba Hydro**

## **1. Introduction**

Manitoba Hydro trialled two sections of the protocol: section II as it applied to our generating projects Wuskwatim and Keeyask, and section III to Wuskwatim. Wuskwatim is a 200 MW generating station currently under construction with an expected in-service date in 2011. Keeyask is a 695 MW plant currently undergoing a planning process. An overview of these two projects is presented below.

This report presents our findings and recommendations for the Hydropower Sustainability Assessment Forum.

The team that analyzed the applicability of the draft Protocol to Manitoba Hydro projects included the participation of auditors experienced in environmental audits and staff that tested and reviewed previous versions of the protocol. Diverse departments provided technical support.

The team initially used the auditing templates suggested by the HSAF, however due to time constraints a simplified approach was adopted. The analysis centered first on the attributes, then on the aspects and requirements.

The goal of this self-assessment was not to assess the projects and plants. This trial objective was to respond HSAF questions about the draft protocol and identify opportunities for improvement, as requested by the Hydropower Sustainability Assessment Forum, on the following issues:

- Objectivity and replicability. To understand how robust the Draft Protocol is in terms of field testers arriving at consistent and unbiased results.
- Understandability. To identify parts of the proposed Draft Protocol that field testers find hard to understand.
- Scope and comprehensiveness. To obtain views on the appropriateness of the set of aspects and assessment criteria included in the Draft Protocol. To identify issues that field testers encounter but that are not covered in the Draft Protocol, or that are duplicated unnecessarily.
- Ease of use. To assess the level of practicability of the Draft Protocol as an assessment tool. To assess the burden of applying the Draft Protocol: for instance, whether information required to apply it is not available or available only with undue cost or effort.
- Impact and effectiveness. To assess to what extent field testers find application of the Protocol a useful exercise in terms of identifying weaknesses/opportunities, encouraging dialogue, and encouraging improvement of performance.
- Applicability to a range of scale and regions. To identify any special problems in applying the draft Protocol that arise for field testers in relation to project scale, region, developed versus developing economy, type of project, etc. Also to find out how the field testers make their

scoping decisions with respect to aspect relevance, and considerations relevant to project context or scale.

- Adequacy of implementation guidance. To obtain views on the usefulness of the introductory section and the auditing guidance notes. To identify where additional implementation guidance would be helpful to the field testers.
- Presentation of Results. To obtain views on the usefulness of the Auditor Worksheet and the suggestions for summary presentation of results, both of which are provided in the Draft Protocol introduction to each section.

## 2. Overview of Reviewed Projects

### Wuskwatim Generation Project

- Located in Northern Manitoba, Canada, in the Nelson House Resource Management Area, approximately 45 km southwest of Thompson, 35 km southeast of Nelson House
- Involves the development of a 200-megawatt generating station at Taskinigup Falls on the Burntwood River
- Involves less than 0.5 km<sup>2</sup> of flooding
- Includes an associated access road, construction camp, and other infrastructure
- Developed in partnership with one Aboriginal community (equity partnership between Nisichawayasihk Cree Nation (NCN) and Manitoba Hydro, the Wuskwatim Power Limited Partnership)
- Unique, as it represents the first time Manitoba Hydro entered into an equity partnership with an Aboriginal community on a generating station project
- Scheduled for completion in 2011 at a cost of \$1.3 billion Canadian dollars

### Keyask Generation Project

- Site is being studied for possible hydroelectric development
- Keyask would be located in Northern Manitoba, Canada, in the Split Lake Resource Management Area: 725 km northeast of Winnipeg on the lower Nelson River, and 35 km upstream of the existing Kettle Generating Station, where Gull Lake flows into Stevens Lake
- Developed in Partnership with four Aboriginal Communities
- Net capacity: 695 megawatts
- Average annual energy production: 4,400 GWh
- Flooded land area: approximately 45 km<sup>2</sup> (may gradually increase due to erosion)
- Total reservoir area: Approximately 93 km<sup>2</sup>
- Generator units: 7
- Construction period: 7 to 8 years
- Estimated Cost: \$4.6 billion Canadian dollars

### 3. Findings

The auditing results have been organized in

1. Overall Observations
2. Detailed comments
3. Opportunities for Improvement

When feasible, Manitoba Hydro suggests opportunities for improvement that address our observations.

#### 3.1. *Overall observations*

Complexity

- The draft Protocol is overly complex. The number of attributes, the significant volume of questions to assess each attribute, the appropriateness of some attributes, and the lack of practical parameters to perform the audit make the assessment difficult.
- The language in the draft Protocol and its content make the document very difficult to read and understand. Overall it results a daunting effort for those involved or invited to be involved in the exercise.

Consistency with business practices

- Requirements for Section II are closer to business practice compared to the other sections. Most of the aspects, and a relevant portion of their definitions, are in some fashion part of regulatory processes.
- The requirements for section III are almost a duplication of section II. However, business practice in section III and after is significantly different. Therefore, requirements don't respond to industry usual practice. Between section II and III there is a regulatory process and approvals in place that set the regulatory framework in which the project will be built. Corporate activity is concentrated in monitoring the construction process, monitoring significant aspects and indicators based on what has been identified by the regulatory process, monitor compliance of regulation, contracts and conformance with management plans, and identification of needs for adaptive management actions.
- Monitoring of activities in section III will be as broad as it has been identified as relevant in previous sections.

Auditing issues

- It is a challenge for auditors to be able to assess one aspect with so many criteria and questions per aspect. Auditors usually use simpler and clear questions to assess each topic. The criteria and parameters to be used are fairly explicit.
- Auditors usually do not assess policies. They consider policies a given.

- From a methodological perspective, the draft Protocol is too prescriptive to allow for a broad application worldwide. There are diverse methodologies and approaches to assess the multiple issues hydropower projects and plants deal with. The nature of each project and its environment determines the selection of a portfolio of methodologies and approaches a particular developer and/or operator may use. From an auditing perspective, it is not practical for a sustainability assessment protocol to be prescriptive. The requirements of assessing the quality of specific tools would also require additional audits. References to specific methodologies and approaches to be used (such as cost-benefit analysis, multi-criteria for site sitting, nature of financial systems, natural flows in e-flows, etc.), and the assessment of their quality should be eliminated. This applies both to the prescription of methodologies to be applied by the developer as well as the prescription of several public policies.
- At the same time, the parameters for assessing projects are loosely defined. This leaves the interpretation of the draft Protocol requirements up to each auditor. The tool is therefore bound to be subjective.
- Questions should focus in what is critical to assess project sustainability. While the draft Protocol seems to have considered that some sustainability reporting mechanisms require a wide variety of data, from the perspective of a project sustainability assessment tool perspective, such an approach is not practical. The goal of each tool is different.
- Information systems: While the Protocol is expected to be a voluntary tool, the questions do not correspond to information available through usual information systems. As a matter of fact, some of the requirements in the protocol go beyond those from existing regulatory and financial requirements in markets with stringent regulation and enforcement. The challenges are that a) projects will be penalized for not having sufficient evidence to respond the specific questions, b) separate audits would be required as evidence to respond to many of the protocol questions.
- Time requirements: The trial suggested that one week would be sufficient to perform the field work for the assessment, and a few additional weeks would be necessary to prepare the reports. As the protocol is today, it would take a lengthy period of preparation, in addition to a few weeks of field work to perform the assessment once the auditor becomes familiar with the company, its processes and the issues to assess.
- Assessment of public policies. If the Protocol were to be applied in a jurisdiction that has no specific policies on the topics of interest for the Protocol, then it would be simple to assess and measures could be taken to address relevant issues for the specific project or plant. However, in the situation of countries that have legislation with specific policies in place it is vastly different. In these cases, the concern is that it is not appropriate for an industry protocol to assess the appropriateness of those policies. In this regard, it is not appropriate for an industry protocol to prescribe specific approaches and tools that governments are to use and promote. It is more appropriate for an industry standard to assess the existence of regulated processes and whether the processes are applied.

### Industry Best Practices

Conceptually, the use of best practices as a reference is positive. Best practices normally refer to recommendation on processes and in order to be effective have to be reasonably achievable.

However, in the draft Protocol best practice has been used

- a) To define expected results from projects;
- b) Has considered the existence of an example of achievement in a project somewhere in the world as a reasonable requirement.

An example is the measurement of achievements in terms of stakeholder support and the way such support manifests. The draft Protocol indicates that to obtain the top score projects or plants have to seek consensus. In a democratic context, consensus is hardly a goal, precisely because individuals are granted a right to freely express their perspectives and because of the relevant number of individuals involved.

In developed democratic systems, when it comes to infrastructure projects there are institutional mechanisms that are instrumental to address these controversies and reach a conclusion. Usually this is the result of the regulatory review of infrastructure projects.

### Scoring

- The protocol attempts to explicitly address a list of potential concerns with hydropower projects.
- For any particular project not all aspects will be significant. Probably through scoring this fact will have to be addressed.
- The Forum has left the overall scoring to a subsequent stage, due to time constraints. However, note the overall scoring is a fundamental component of an assessment tool.
- Once an overall scoring mechanism is defined, it will be important to test its effectiveness.

### Balance of aspects

- Sustainability implies the consideration of social, environmental and economic components. Technical considerations have also been considered relevant in the assessment of projects and plants.
- The number of aspects that would fall under each of these categories is not balanced. In the protocol the main concern has been to address potentially less regulated components, mainly social and environmental. The economic side will likely look minor compared to the others.

### 3.2. Analysis of Attributes

#### 3.2.1. General comments

<b>General Comments</b>	<b>Comments</b>	<b>Recommendation</b>
Auditing Flaw	When there are two distinct topics being evaluated within the aspect, requiring two separate pieces of audit evidence leading to two separate conclusions, it is hard to assign a single score	Develop singular scale, single question for each attribute.
Number of attributes to consider should be reduced.	Most attributes in Section 2 are not pertinent  New structure with aspects and attributes has made the assessment more difficult yet.	Remove all attributes with the exception of quality of the Assessment Process and Quality of the Management Process and Consultation.
Requirements are difficult to evaluate objectively	Parameters for the auditor are not practical, in many cases not available	If intent and definition of an aspect is clear, then it is practical to verify the existence of a process in place to achieve a particular goal, and to verify is the process being followed.

#### 3.2.2. Detailed Analysis of Attributes

<b>Process Attributes</b>	<b>Focal Area</b>	<b>Comments</b>	<b>Recommendation</b>
Quality of the Assessment Process	Addresses assessment requirements for a particular aspect, including identification of the baseline condition; legal and other requirements; impact, risk and opportunity assessment	Difficult to assess quality of the process leading to an understanding....	Verification of existence of processes, their implementation, and consistency with goal (aspect definition and intent)
Quality of the Management Process	Addresses management planning and implementation for a particular aspect, including objectives and targets, resource allocation, roles	Difficult to assess quality of the management process. Would require separate audit with clearly identified parameters	Verification of existence of processes, their implementation, and consistency with goal (aspect definition and intent)

<b>Process Attributes</b>	<b>Focal Area</b>	<b>Comments</b>	<b>Recommendation</b>
	and responsibilities, implementation strategies, checking and evaluation, and continuous improvement.	(not provided by the protocol)	
Quality of the Consultation Process	Addresses the consultation process undertaken for a particular aspect, including stakeholder mapping, engagement processes, support for stakeholders in the consultation process, transparency, grievance and dispute mechanisms.	Information for each aspect is not consistent with industry practice nor practical or feasible to implement. Normally consultation of several aspects is undertaken as part of the project components in section 2. Information collected during these processes and issues discussed depend on stakeholders' areas of interest.	Remove attribute as being required for each aspect. Consider only when relevant (e.g. EIA and SIA process, Project Affected Communities, Indigenous People, and Resettlement)

<b>Performance Attributes</b>	<b>Focal Area</b>	<b>Comments</b>	<b>Recommendation</b>
Level of Stakeholder Support	Addresses the level of stakeholder support for the process and performance for a particular aspect, with respect to those stakeholders identified in the consultation process.	Difficulty of scoring, evidence required, measureable. Cannot provide indication of stakeholder support on each and every aspect.  Guidelines are not practical. Suggest consensus is a practical goal. Parameters are not clear either.  Criterion to measure of stakeholder support is likely to vary from project to project.	Eliminate as an attribute except for few aspects.  Might be auditable as an aspect for project overall. Goal could be to assess the identification of stakeholders is adequate, if is there a bias, with a defined process to assess against.
Level of Compliance	Addresses the level of compliance with legal	Only relevant during construction and operation	Eliminate Level of Compliance from

<b>Performance Attributes</b>	<b>Focal Area</b>	<b>Comments</b>	<b>Recommendation</b>
	requirements and other public commitments that have been made for a particular aspect	sections	<p>Section II. Verification of compliance of critical components would be pertinent to only those aspects that are regulated.</p> <p>This attribute could be merged with conformance with plans.</p>
Level of Conformance with Plans	Addresses the level of conformance of implementation measures with most up to date project-related plans, with a particular emphasis on the quality of internal business systems and processes.	Only relevant during construction and operation sections	<p>Eliminate this attribute from Section II.</p> <p>Requirement for sections III and IV could be verification of conformance with plans.</p> <p>This attribute could be merged with compliance.</p>
Level of Effectiveness	Addresses the effectiveness of implementation activities for that aspect, in terms of on-ground outcomes, desired outcomes and/or agreed performance measures	<p>The criteria effectiveness is not practical to measure and assess. Assessment of likelihood of events or results of analysis taking place does not seem pertinent.</p> <p>Can only measure effectiveness after phase is complete</p> <p>Only relevant in Sections III and IV.</p>	<p>In section III, if the goal has been defined by regulatory framework and plans, then the audit should verify compliance and conformance. These concepts include monitoring of relevant issues identified in section II, and adaptive management.</p> <p>Therefore, level of effectiveness should verify if there is a process in place, and if it is being properly implemented.</p>

### 3.3. Analysis of Aspects

#### 3.3.1. Aspects Section II

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Demonstrated Need & Strategic Fit	Yes		
River Basin & Transboundary Issues	Yes		Combine with Catchment Management
Hydrological Resource Availability & Management	Yes	Unclear what criteria will have to meet	Questions should be: Do you have a process, is it a reasonable benchmark against best practices and is it verifiable?
Project Sitting & Design Optimisation	Yes	The criteria in assessment and management attributes are not adequate.	Questions should be: Do you have a process, is it a reasonable benchmark against best practices and is it verifiable?  Eliminate the prescription of methodologies
Economic Viability incl. Additional Benefits	Yes	Prescriptive in terms of methodology requirement (cost-benefit analysis). Economic viability focus is on delivery of additional benefits.	Should not be prescriptive of methodologies.
Financial Viability	Yes	Prescriptive in terms of methodology requirement	Questions should be: Do you have a process, is it verifiable?  Do not be prescriptive of methodologies
Public Sector Governance	No	Unclear how concepts such as government corruption would be measure in such a way that is project specific. If it is systemic, this would affect any infrastructure and generation project equally.  Difficult to evaluate process when the process output is	

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
		"understanding".  Industry identification of planning to compensate public sector capacity shortfalls could lead to jurisdictional conflict with decision making authority and unsustainable in long term.	
Corporate Governance	Yes	Measureable : Integration of sustainability into corporation	Questions should be: Do you have a process, is it verifiable?
Regulatory Approvals	Yes	Measure at the end will be if project got the approval.	Do you know what the process is and do you have a plan to get regulatory approval.
Integrated Programme Management & Communications	No	This aspect belongs with corporate governance, how you do business.	Communication could be a separate aspect and question could be: Do you have a communication process, and how do you manage the process?
Construction Management	No	Captured in other aspects, does not need to be addressed individually	Not that relevant in Section II Project Preparation.

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Procurement	Yes	<p>This aspect should address green procurement and waste management.</p> <p>Is the auditor assessing the quality of the process or just the existence of a process?</p> <p>Not enough criteria to assess the protocol requirements. E.g., to assess the use of sustainability criteria in the procurement and prequalification process, it is unclear what parameter will the auditor use to assess its quality. The requirement doesn't seem meaningful. Goal of measuring "transparency and competitiveness of the bidding...": unclear the basis to assess it.</p>	<p>Do you have a process and is it verifiable?</p>
Social Impact Assessment & Management	Yes	<p>Cumulative effects. In the protocol there is no criteria defined. There is uncertainty on how the protocol will be implemented.</p>	<p>Focus on verification of social impact assessment and process.</p> <p>Do you have a process and is it verifiable?</p> <p>Aspect could be merged with EIA &amp; management.</p>
Project Affected Communities	Yes		<p>Verification of a process to identify project affected communities.</p>
Indigenous Peoples	Possibly	<p>Conceptually, Indigenous People are identified as part of the analysis because they are project affected community. Any adequate SIA should identify project affected communities and vulnerable groups.</p>	<p>Use of consent for Indigenous Peoples as best practice could, perhaps, depend on the definition of consent, such as in relation to arrangements associated with impacts and benefits</p>

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
		Free Prior Informed Consent is not pertinent, as industry should not decide if some groups have more rights than others.	
Resettlement & Land Acquisition	Possibly	<p>The reviewed project does not require resettlement of population.</p> <p>Conceptually, resettlement should be part of the analysis as project affected community. Any adequate SIA should identify this issue.</p> <p>Free Prior Informed Consent does not seem pertinent, as industry should not decide if some groups have more rights than others.</p>	Use of “consent” for Resettlement as best practice could, perhaps, depend on the definition of consent, such as in relation to arrangements associated with impacts and benefits

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Benefit Sharing	No	<p>The protocol indicates benefit sharing approach as a tool and parameter of project sustainability.</p> <p>Benefit sharing can be part of project package of benefits, it can't be considered as an appropriate approach for any project worldwide (the scope of this protocol). The existence of a benefit sharing plan does not define if a project is sustainable.</p> <p>This requirement would never be required for any other form of generation.</p> <p>The protocol has another aspect assessing projects additional benefits and this concept can be part of that analysis.</p>	Remove from Section 2
Labour & Working Conditions	Yes	<p>Equal job opportunities and safety are separate issues.</p> <p>Health and Safety captured in community safety and public health.</p>	Redefine to only address equal opportunity and fair business practices.
Cultural Heritage	Yes	Captured in legislation in Canada.	Do you have a process to address Cultural Heritage and can it be verified?
Public Health	Yes	Opportunity to leave public health infrastructure behind should be part of additional benefits but not a goal per se.	Redefine to exclude enhancement of opportunities as requirement
Asset & Community Safety	Yes	Validation of consideration of potential risks.	Do you have a process and is it verifiable?
Environmental Impact Assessment & Management	Yes	Does not improve definition on contentious issues: cumulative impacts, legacy issues.	<p>Do you have a process and can it be verified?</p> <p>Aspect could be merged with SIA and Management, as it is oriented to the assessment</p>

<b>Section 2 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
			process.
Catchment Management	Yes	Combine with River Basin and Transboundary Issues	Is there a catchment management plan and can it be verified?
Reservoir Management	Yes	<p>If applied as it is, almost all projects would have high risk of emissions. Baseline comparison should be with alternative means of generation.</p> <p>Also, information not likely to be available for most projects worldwide, as measurement methodologies are under development and emissions are not considered a potential issue but in tropical areas of the world.</p>	<p>Redefine to only address ghg as other components addressed in other aspects.</p> <p>Change aspect name to be GHG Emission Risks</p>
Environmental Flows & Downstream Sustainability	Yes	Protocol wording is prescriptive, and suggests natural flows as the approach that should be in place. For various reasons is not pertinent.	<p>Is there a process in place that evaluates environmental flows, and is it verifiable?</p> <p>Do not be prescriptive of methodologies.</p>
Biodiversity & Invasive Species	Yes		Do you have a plan to address biodiversity and is it verifiable?
Erosion & Sedimentation	Yes		Do you have a plan to address Erosion and Sedimentation and is it verifiable?
Water Quality	Yes		Do you have a plan to address water quality and is it verifiable?

### 3.3.2. Aspects Section III

<b>Section 3 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
River Basin & Transboundary Issues	Yes	Not specifically dealt with in section 3 - dealt with in section 2 with agreements in place...	Is there an agreement / plan and are they in compliance with it? Combine with catchment management aspect.
Economic Viability incl. Additional Benefits	No	Questions need to be changed as they relate to section II.	Propose monitoring of relevant elements. Should not be prescriptive of methodologies. Several economic considerations could be analyzed together, in one aspect.
Financial Viability	No	Assessment is part of Section II not III, Remove viability from definition. Prescriptive in terms of methodology. Unclear what criteria will have to be met.	Should be management attribute - is there a process to monitor project costs.
Public Sector Governance	No	Unclear how concepts such as government corruption would be measure in such a way that is project specific. If it is systemic, this would affect any infrastructure and generation project equally.	Eliminate aspect
Corporate Governance	Yes	Measureable: Integration of sustainability into corporation	Do you have a process? Are you in compliance with it?
Regulatory Approvals	Yes		
Integrated Programme Management & Communications	No	This aspect largely belongs with corporate governance, how you do business. Communication could be differentiated.	Do you have a communication plan, and are you in compliance with the plan?
Construction	Yes	Captured in other aspects, does	Do you have a construction

<b>Section 3 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Management		not need to be addressed individually.	management plan? Are you in compliance with it? Does the plan address the aspect definition.
Procurement	Yes	<p>Protocol requires assessment of quality; but parameters for the assessment are unclear.</p> <p>More practical is the verification of the process and how it operates.</p> <p>Not enough criteria to assess the protocol requirements. E.g., to assess the use of sustainability criteria in the procurement and prequalification process, it is unclear what parameter will the auditor use to assess its quality. The requirement is not meaningful.</p> <p>Goal of measuring “transparency and competitiveness of the bidding...”: unclear the basis to assess it.</p>	<p>Management attribute: is there a process, can it be verified, is it effective to address the goals as it is planned.</p> <p>This aspect should address green procurement and waste management if the motive of the protocol is to encourage sustainability.</p>
Social Management Plan	Yes	<p>Protocol questions are not consistent with industry practice at this point. Most questions applied to section II.</p> <p>The Social Management Plan would concentrate all the relevant criteria identified to monitor the project performance on social issues.</p>	<p>Question should be: is there a social management plan, is it verifiable, and are you in compliance with it.</p> <p>All social related variables would be addressed in this aspect.</p>
Project Affected	No	Parameters used to assess the	Should be part of the social

<b>Section 3 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Communities		aspect are not necessarily controlled by the developer.	management plan, remove aspect from section 3.
Indigenous Peoples	Possibly	Social Management Plan should identify the affected communities, if they are Indigenous Peoples and if this is a vulnerable group. The requirement seems duplicative.	Use of “consent” for this aspect as best practice could, perhaps, depend on the definition of consent, such as in relation to arrangements associated with impacts and benefits. Also, this concept is likely to be more appropriate in Section II than in Sections III and IV.
Resettlement & Land Acquisition	Possibly	The reviewed project does not require resettlement of population.  Conceptually, resettlement should be part of the analysis as project affected community. Any adequate SIA should identify this issue.  Free Prior Informed Consent does not seem pertinent, as industry should not decide if some groups have more rights than others.	Use of “consent” for Resettlement as best practice could, perhaps, depend on the definition of consent, such as in relation to arrangements associated with impacts and benefits
Benefit Sharing	No		Remove from Section 3. If benefit sharing has been agreed, will be monitored by different plans.  Follow up is part of a management plan and verification of compliance.
Labour & Working Conditions	Yes	Address equal opportunities separately from safety issues. Health and Safety captured in community safety and public health. Pertinent to see if you have	This is a corporate governance issue.

<b>Section 3 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
		good working conditions. Questions that cannot be project specific are not relevant to assess project sustainability.	
Cultural Heritage	Yes	In Canada it is captured in legislation.	Assessment is undertaken in section 2, not 3. In this phase the question should be about compliance and conformance with regulations and Management plan.
Public Health	Yes	Opportunity to leave behind should be in additional benefits.  Monitoring will be part of management plans.	Is there a plan in place and is it in compliance
Asset & Community Safety	Yes	Validation of consideration of potential risks.	Do you have a plan for asset and community safety? Is it verifiable and are you in compliance?
Environmental Management Plan	Yes		Is there a plan in place and is it in compliance?
Catchment Management	yes	Not specifically dealt with in section 3 - dealt with in section 2 with agreements in place....	Is there an agreement / plan and is the developer in compliance with it? Combine with other River Basin and Transboundary Issues
Reservoir Management	Yes	Measurement of GHG is not mandatory and is not always required.  In Manitoba Hydro projects, GHG measurement is not part of monitoring plans as GHG emissions are not considered a relevant risk. However, the Corporation is currently measuring GHG emissions both in Wuskwatim and Keeyask.	Is there a reservoir management plan and are they in compliance with it.  As part of the environmental management plan the protocol should measure: compliance and conformance to regulations and plans.

<b>Section 3 Aspect Analysis</b>			
<b>Aspect</b>	<b>Pertinence/ Relevance</b>	<b>Difficulties / Issues</b>	<b>Recommendations for Improvement</b>
Environmental Flows & Downstream Sustainability	Yes	Assessment is part of section II.  This section should be about monitoring compliance and conformance, as the topic is part of the regulations in place.	Is there a plan in place that evaluates environmental flows, and is the developer in compliance?
Biodiversity & Invasive Species	Yes	Unclear how an auditor would verify the degree to which negative impacts to biodiversity are identified or the degree to which positive impacts are identified?	Normally, this is part of environmental management plan (monitoring plans). Therefore, the question should be: Is there a plan in place and is it in compliance.
Erosion & Sedimentation	Yes	Normally part of environmental management plan	Is there a plan in place and is it in compliance
Water Quality	Yes	Normally part of environmental management plan	Is there a plan in place and is it in compliance
Waste, Noise & Air Quality	Yes	Normally part of environmental management plan	Is there a plan in place and is it in compliance

## 4. Recommendations

Manitoba Hydro suggests the following opportunities for improvement for the draft Protocol, for the Forum's consideration:

1. Eliminate the labelling of attributes
2. Limit number of questions per aspect to the minimum (two to four) number of indicators
3. Simplify the language
4. Identify clear parameters for the questions asked. The current language leaves the assessment to the subjective interpretation of auditors. Currently, it is not feasible to identify the difference between good, very good and excellent without parameters. It is simpler, though, to identify unacceptable practices.
5. If two separate issues with separate criteria need to be assessed, use different aspects.
6. Eliminate questions related to consultation and stakeholder support as being required for each and every aspect. The information will not be available to address the protocol requirements, as it is not consistent with business practice.
7. To address the need for assessing the existence of reasonable consultation practices and level of support/lack of opposition, an option could be to limit the assessment of these concepts in a few aspects such as Project Affected Communities, Indigenous People and Resettlement and Land Acquisition. The usual practice is that these groups would be consulted on the aspects the communities find relevant and the information would be available.
8. Manitoba Hydro does not have a recommendation of a parameter that can be used internationally and at any time of a project for the assessment of stakeholder support (or lack of opposition). Manitoba Hydro's experience is that specific goals are set per project, and that the definition may vary on a project by project basis.
9. Questions should focus in what is critical to assess project sustainability. While there are numerous international reporting mechanisms that tend to require a wide variety of data, for the goal of a project sustainability assessment tool such an approach, an overwhelming volume of data, is not effective.

Depending on the section, the criteria relevant to the audit varies. In section II, it is relevant to the identification of relevant issues for the particular project, the existence of adequate assessment processes, that these assessment processes are consistent and address the identified goals (the relevant issues). The attribute effectiveness is not pertinent in this stage, conformance and compliance with plans is not adequate in most cases and in any part of the section II stage.

In sections III and IV, the relevant issues are compliance with regulation, conformance with plans and other commitments. However, reviewing the processes that led to decisions during the planning process is part of section II and is not pertinent in subsequent stages. The reason is that after approval has been granted, project proponents will be working at least as defined by regulatory processes.

Regarding requirements for consultation and stakeholder support, applicable to all sections, it is not practical to have this requirement aspects by aspect. Projects will not have the documentation as required by the protocol because it is not part of the usual practice, nor would be feasible to implement.

10. Manitoba Hydro suggests that prescriptive requirements in terms of methodology or approaches are eliminated from the protocol (e.g. cost-benefit analysis, multi-criteria for project siting, nature of financial systems, natural flows in environmental-flows, etc.). If the Protocol requirements were principle based, it would be feasible to deal with the fact that different entities choose a diverse portfolio of tools and approaches depending on the institutional context of their operations, the characteristics of the plant or plants they have to deal with and the physical environment in which they operate.
11. There is no universal toolkit for hydropower projects. The quality of each tool and approach selected for a particular development or plant will be difficult to assess during this audit. If there are no approaches or tools in place or being considered, the assessment is fairly simple, and questions about the process/es in place to address with a particular aspect would be sufficient to identify the situation. However, it is usual that many approaches are site or jurisdiction specific, and it is unlikely that this audit will be able to assess the quality of the processes in addition of all the other elements to assess. To assess the quality of a methodology would require a different (and additional) audit.
12. Manitoba Hydro suggests the Forum concentrates its efforts in Section II, and the consideration of sections III, IV and I are addressed in a subsequent phase. Section II seems to be the most mature of all of the sections, the one closest to current business practices and probably the most significant to influence sustainability considerations are part of a project with appropriate timing, before the plant has been built.
13. Questions should be project/plant specific. While consideration of human rights and corruption are commendable, it is unclear what would be used as a project specific evidence of compliance and what parameter the Protocol would use. Similar to the situation with other topics, the assessment is relatively simple when policies and practices are not existent or are very poor. However, any other point in the scale, any other score, is likely to be difficult to prove unless the parameter is specific.
14. Best practices: the best practices identified by the draft Protocol should be achievable to be meaningful, and there should be documented cases in different parts of the world demonstrating this. Availability of significant amount of resources should not be a condition to achieve the best practice. Best practices usually refer to processes, but not necessarily to results. For example, a proponent can use best practices to design and implement a consultation process. However, these best practices can not ensure

a particular social dynamic in a community. This difference is not clear in the draft Protocol.

# **REPORTING TEMPLATE**

## **Trial of the Hydropower Sustainability Assessment Protocol**

### **Assessment Team and Owner's Representative**

(Name, function, organization & signature for each individual. This does not include interviewees.)

Manitoba Hydro did a self-assessment of the Hydropower Sustainability Assessment Protocol using internal staff.

For communication purposes, contact Viviana Burijson, Senior Environmental Advisor, Future Generation Impact Analysis & Monitoring, Manitoba Hydro.  
Telephone (1 204) 360-4840; E-mail: vburijson@hydro.mb.ca

### **Trialing Report Part 1 – Introductory Information**

#### **Company**

(Basic information on the company, such as country of operation, public/private ownership, installed hydro capacity and annual generation. Membership in the IHA and other associations, and formal commitments to and reporting on sustainability etc. would also be of interest. For a Section I assessment, this would be replaced by who is undertaking the assessment.)

Manitoba Hydro is a Crown Corporation located in the Province of Manitoba, Canada.

Total installed capacity: 5,490 MW  
Generation (08/09): 34,5 TWh

Hydropower capacity: 5,018 MW  
Hydropower generation: 34,2 TWh

Source: Annual Report March 31, 2009.

Manitoba Hydro is a member of IHA and the Canadian Hydropower Association.

#### **Project**

(Basic information on the project, such as location, physical lay-out, single-/ multiple-purpose, installed capacity, etc. Note for a Section I assessment where there is not a project of focus, this would describe the focus of the assessment.)

Wuskwatim is a 200 MW generating station currently under construction with an expected in-service date in 2011. For the purposes of this assessment, section II and III were applied to Wuskwatim.

Keeyask is a 695 MW generating plant currently undergoing a planning process. Keeyask was assessed using Section II of the Protocol.

#### **Motivation for and Purpose of the Assessment**

To support the development of the Sustainability Assessment Protocol.

**Disclaimers and Confidentiality Agreements, if any**

(Any qualifications the assessment team wishes to make regarding the information provided (e.g. limited number of stakeholders interviewed, depth of review of documents etc.); scope of confidentiality agreements, if any. Note these can also be made as relevant to particular aspects in the body of the report.)

None

**Schedule of the Assessment**

(Dates with travel schedules, persons interviewed, site visits, presentations etc.)

Undertaken internally September - November 2009

## Trialing Report Part 2 –

**Objectivity and replicability.** How robust do you feel the Protocol is in terms of assessment teams arriving at consistent and unbiased results?

The language in the Protocol is vague and leads to multiple interpretations of requirements and parameters of the assessment. This is not a robust process and results would not be easily replicable or consistent.

**Understandability.** Which parts of the Protocol did the assessment team find hard to understand?

The assessment team found the entire protocol challenging as it was difficult to read and interpret. The draft Protocol presents a text open to different, often competing, interpretations which caused the team to debate extensively.

The number of issues to assess is overly extensive. Aspects and attributes overlap and lead to repetitive questions.

The same group of attributes was used across sections II to IV. However, the nature of each of these stages in the life cycle of a project, the role of the developer and operator, and the role of regulation are significantly different. As a consequence, it was unclear how this approach led to an assessment of sustainable development that is practical.

**Scope and comprehensiveness.** Do you feel the Section includes the right aspects? Which issues did the assessment team encounter that are not covered in the Protocol, or that are duplicated unnecessarily?

The number of attributes and aspects is overly extensive.

The same group of attributes was used across sections II to IV. However, the nature of each of these stages in the life cycle of a project, the role of the developer and operator, and the role of regulation are significantly different. To avoid this situation, a limited number of indicators (2-4) could be used to assess each aspect and the attributes be eliminated.

There are opportunities for simplification of aspects in Section II; which is the section that is closest to industry practice. Suggestions were included in the attached document.

Section III requirements should lead to the review of compliance with existing licenses, regulations, agreements and commitments. In the Draft Protocol, the requirements did not correlate to current industry practices but referred to those that are required for Section II.

**Ease of use.** How practicable do you feel the Protocol is as an assessment tool? Is any information required to apply the Protocol not available or available only with undue cost or effort?

The Protocol was not a practical assessment tool and it was not easy to use. The location of the Auditing Guidance Notes required the assessment team to constantly flip back and forth from the aspect under review to these notes. If the process was simplified in terms of attributes and aspects then the process would not be so difficult to implement.

Within the Protocol, information requirements in certain instances are substantially greater than the regulatory and financial requirements of countries with mature and strict regulatory systems.

**Impact and effectiveness.** To what extent did the assessment team find the application of the Protocol a useful exercise in terms of identifying weaknesses/opportunities, encouraging dialogue, and encouraging improvement of performance?

Although the Draft Protocol initiated a lot of dialogue about sustainability and the possible interpretation of requirements, it did not result in an effective tool to assess sustainability of our projects.

**Applicability to a range of scale and regions.** Did the assessment team identify any special problems in applying the Protocol in relation to project scale, region, developed versus developing economy, type of project, etc.? How did the assessment team make its scoping decisions with respect to aspect relevance, and considerations relevant to project context or scale?

If the Protocol were to be applied in a jurisdiction that has no specific policies on the topics of interest for the Protocol, then it would be simple to assess and measures could be taken to address relevant issues for the specific project or plant.

However, in the situation of countries that have legislation with specific policies in place, such as in Manitoba Hydro's situation, the requirements of the Protocol could be interpreted as challenging public policy and legislation.

In Canada, an industry standard should assess / verify the existence of regulated processes and whether the processes are applied. It is not fitting for an industry protocol to assess the appropriateness of public policies nor to prescribe specific approaches and tools that governments are to use and promote.

From a methodological perspective, the draft Protocol is too prescriptive to allow for a broad application worldwide.

**Adequacy of implementation guidance.** How did you find the introductory section and the auditing guidance notes? Where would additional implementation guidance be helpful to the assessment teams?

For educational purposes it is interesting to present management options, yet these notes should also provide nuances, including that numerous aspects may not be significant issues in all jurisdictions.

In general, the additional information is considered helpful, yet throughout the four sections of the protocol it is important to specify what could be beyond the responsibility and sphere of influence of the proponent. As previously mentioned, the way the protocol is drafted offers the impression that a developer has much more control on issues than it is usually the case.

The repetition of the “introduction” in each section is unnecessary.

The location of the Auditing Guidance Notes required the assessment team to constantly flip back and forth from the aspect under review to these notes. If the process was simplified in terms of attributes and aspects then the process would not be so difficult.

**Presentation of Results.** How useful did you find the auditor worksheet and the suggestions for summary presentation of results provided in the Introduction?

Manitoba Hydro did not find the auditor worksheet and the suggestions for summary presentation of results useful.

### **Trialing Report Part 3 – Assessment Results from the Draft Protocol Trial – Aspect by Aspect**

The intention of this part of the trial report is to provide an aspect-by-aspect summary of who was interviewed; what evidence was brought forward; and views of the assessment team on how well the Draft Protocol addresses that particular aspect.

**This section of the report would provide the following summary comments for each aspect:**

- Aspect name
- Comprehensiveness:
- Understandability:
- Difficulties or Issues:
- Recommendations for Improvements:

See attached document.