

Lake Margaret Power Scheme, Hydro Tasmania

Hydropower Sustainability Assessment Protocol Trial

Trialling Report

September 2009

Project Name	
Company	Hydro Tasmania. State owned corporation headquartered in Hobart, the capital of the Australian state of Tasmania. Additional corporate information available at www.hydro.com.au
Projects	The Lake Margaret Power Scheme, which began producing electricity in 1914, is one of the oldest hydropower schemes in Australia and is an area of outstanding heritage significance. It is an example of the pioneering period of hydro-electric development in Australia. Due principally to its private ownership and continuous operation for most of its life, the site has retained nearly all of its early infrastructure and equipment. The upper section and lower sections were assessed as part of the trial.
Current Status of Project, and Protocol Section Applied	Lower Lake Margaret - Project being prepared - Section II applied. Upper Lake Margaret - Project in construction - Section III applied.
Motivation for and Purpose of the Assessment	Primary objective of the assessment was to trial Draft Hydropower Sustainability Assessment Protocol, August 2009 Section II Project Preparation.
Disclaimers and Confidentiality Agreements, if any	None required.
Considerations relevant to project context or scale	The project relied significantly for its assessment results on assessment work conducted for Upper Lake Margaret. Upper Lake Margaret was assessed concurrently with this project.
Lead Auditor Name	Richard Boele, Managing Director, Banarra, & Barry Blumstein, QESIMS Pty. Ltd.
Assessment Team	Andrew Scanlon, Hydropower Sustainability Assessment Forum Representative and Hydro Tasmania; and Michael Simon Hydropower Sustainability Assessment Forum Representative and Oxfam Australia
Owner's Representative	Andrew Scanlon, Business Sustainability Manager, Hydro Tasmania
	

Schedule of the Assessment	
15/09/2009	06.00 Travel to Hobart 10.00 Opening meeting, review of methodology and then interviews with project representatives 18.00 Close of day's work
16/09/2009	06.30 Travel to project area 11.30 Arrival for observation of community meeting 13.00 Interviews 15.00 Project tour - Upper Lake Margaret 18.00 Close of day's work
17/09/2009	08.30 Travel to project area 09.00 Project tour - Lower Lake Margaret 11.45 Travel to Hobart 13.00 Review of assessment with assessment team 14.00 Travel to Hobart 17.30 Review of protocol 19.00 Close of day's work
22/09/2009	13.00 Evidence review & reporting

Trailing Report Part 2	
Objectivity and replicability.	
<p>How robust do you feel the Protocol is in terms of assessment teams arriving at consistent and unbiased results?</p>	<p>Objectivity & Replicability Lower Priority The trial resulted in the question of whether objectivity and replicability were a priority at this stage in the protocol's development. It is challenging to come to a view in this area without the benefit of reviewing other assessment teams results. Aside from these general views there were specific concerns in relation to objectivity and replicability which are listed below.</p> <p>Criteria Language Loose The criteria language is loose in places making objective findings difficult. For example terms such as closely, promptly, regularly, frequently and periodically are used without definition. If the intent is greater objectivity leading to yes/no certification thresholds then these terms need clear definition.</p> <p>Sub-attributes Assessment Time Consuming Sub-attributes require considerable time from the auditor to score without improving objectivity - for example "the quality of the process" is referred to in many of the sub-attributes. Consistent auditor assessments of the quality of the very large range of processes at the sub-attribute level the protocol currently requires is unlikely.</p> <p>Stakeholder Support Scores Contestable Scoring stakeholder support will always be contestable as it is entirely dependent upon the stakeholder views that the assessor takes into consideration. There are many factors that can limit the range of stakeholder views the assessor has access to. Ultimately there is a level of assessor judgement involved in scoring this attribute and limitation in terms of methodology.</p> <p>No Guidance on Depth of Evidence Collection & Testing Replicability depends on a level of consistency in the approach to evidence collection and testing. It was not possible to identify guidance on this in the current protocol however there is very useful guidance on the types of evidence. It is currently difficult to provide a view on replicability without one auditor reviewing the work of another.</p> <p>Recommendations: Remove sub-attributes. Tighten or remove criteria language. Training should be considered to clarify the intent of the protocol's attributes and aspects. Establish review process to ensure greater level of consistency between teams and mechanisms for sharing learning & for benchmarking practice. Acknowledge that scoring stakeholder support has an element of assessor judgement. Provide guidance on minimum stakeholder engagement required for scoring stakeholder support.</p>
Understandability.	
<p>Which parts of the Protocol did the assessment team find hard to understand?</p>	<p>Current Communication can be Challenging The current format of the Protocol can be daunting for the assessor. It is very comprehensive yet this comprehensiveness makes understanding of the intent of Protocol difficult to comprehend.</p>
<p>Which parts of the Protocol did the auditee find hard to understand?</p>	<p>Trial auditees did not have the opportunity to reflect on the Protocol.</p>

Scope and comprehensiveness.

<p>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?</p>	<p>Management Approach Evidence Covers Number of Aspects The team found that a number of aspects was addressed by a single piece of evidence. Indeed as summarised in our general approach area we found an overall understanding of the management approach to the Project was required before drilling down into the aspects. For example, the feasibility study covers assessment for many of the aspects. In this context there may be an argument for approaching the assessment from an attributes perspective first and an aspect dimension second.</p> <p>Issues that Reduce Support for Operator but not the Project The issue of cloud seeding was raised as a significant issue in their relationship with the corporation - which raised the question of the extent to which the auditor needs to consider issues related to the project.</p>
<p>Ease of use.</p>	
<p>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?</p>	<p>Complex Protocol Structure & Communication There is complexity both within the Protocol's conceptual structure and how it is communicated that makes the current form of the protocol less practical as an assessment tool. Nearly all of Section's II, III and IV aspects are common. The 'matrix structure' requires a systems assessment within every aspect. The management attributes structure emphasizes two aspects of the management approach over all the others. Considering each sub-attribute and its score within some aspects is a very time consuming task.</p> <p>The matrix structure of the protocol (attributes against aspects) could be easier to use as an audit approach if only management requirements were contained in attributes and not within the aspects. For example there is currently the Social Impact Assessment and Management aspect. Assessment and Management is covered in the process attributes therefore it is creates redundancy with some small revision of the affected communities, Indigenous and other social aspects SIA.</p> <p>It was challenging to understand why there are process attributes (systems elements) within the aspects. For example SIA and EIA and other management plans required. It was explained that this was done to emphasize these elements by elevating them these to aspect level.</p>
<p>Recommendations: Remove sub-attributes and use the questions as criteria for assisting assessment. Collapse the three sections into one protocol with three appendices for the additional aspects specific to the project life cycle.</p> <p>Consider a simplified approach to assessing and scoring the process attributes based upon a ISO14000 system structure.</p> <p>Provide the auditing guidance notes with a consistent structure to assist with accessibility.</p>	
<p>Impact and effectiveness.</p>	
<p>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?</p>	<p>Ambitious Trial Scope Limited View on Impact and Effectiveness Due to the very ambitious scope of work required to be completed in the timeframe it was not possible to encourage dialogue or improve performance. The assessment team did find the protocol useful in identifying weaknesses and opportunities within the limited scope of the trial.</p>
<p>Applicability to a range of scale a</p>	

<p>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?</p>	<p>Mini Hydro Redevelopment Questions Applicability of Aspects This project scale and nature challenged the applicability of aspects that the protocol currently states are always relevant. These are identified in Part 3 of the Trialling Report.</p> <p>Protocol requirements for formal approaches were not considered appropriate for the size of the project.</p>
<p>Adequacy of implementation guidance.</p>	
<p>How did you find the introductory section and the auditing guidance notes? Where would additional implementation guidance be helpful to the assessment teams?</p>	<p>Auditing Guidance Notes Very Useful Auditing guidance notes were at times very useful. This was perhaps the most valuable part of the protocol as they generally gave clear indication of what was expected in terms of effectiveness.</p> <p>The definitions in relation to the scoring are many - there are 1-5 for attributes, then at the highest level for the table Definitions of Scores 1-5 and then the definitions within the aspects. For an auditor this is confusing. Consideration should be given to simplifying the presentation of definitions. There are definitions in three places and they appear to be different in their structural presentation - they appear to have not been reconciled.</p>
<p>Presentation of Results.</p>	
<p>How useful did you find the auditor worksheet and the suggestions for summary presentation of results provided in the introduction?</p>	<p>Assessment Tools Require Development Having two formats for evidence collection and reporting is not efficient. Hence the development of this simple Excel based assessment report.</p>

ASPECT NAME	Comprehensiveness	Understandability	Difficulties or issues	Recommendations for improvement
Demonstrated Need & Strategic Fit				
River Basin & Transboundary Issues			The protocol should provide greater guidance on what scale of project this aspect should be applied to.	Define what is a large river basin.
Hydrological Resource Availability & Mgmt				
Project Siting & Design Optimisation	The protocol currently makes no reference to project site redevelopment. The language used for in reference to siting was not directly relevant to the Lake Margaret Power Scheme as the siting was determined when it was originally established.			
Economic Viability incl. Additional Benefits	There was only one additional benefit - Tourism. The Protocol appears to want more than this, therefore the assessor was left uncertain as to whether assessing on this one additional benefit was adequate.			
Financial Viability			The assessor is unable to conduct analysis on IRR and NPV without relevant benchmarking information.	Provide benchmarking for IRR and NPV within Hydro industry in general and within Hydro within the country of site being assessed in particular.
Public Sector Governance				
Corporate Governance	The protocol states that it should be assessed at the corporate level. While this is appropriate for the scope of what is required by the aspect does this also mean that effectiveness should also be assessed at the corporate level?		This aspect should have been assessed at the corporate level, however it does require significant work to collect evidence as the level of conformance with vision, values, policies and systems is required.	
Regulatory Approvals			The lead assessor had no benchmarking information to compare the DA approach of HT with others in a similar context to assess whether the approach demonstrated excellence.	
Integrated Programme Mgmt & Comms	This is a management system aspect, could it be grouped together with other aspects, covering this and construction management, social impact assessment and management and environmental impact assessment and management.			
Construction Management				

ASPECT NAME	Comprehensiveness	Understandability	Difficulties or issues	Recommendations for improvement
Procurement	The guidance is not comprehensive as it does not offer direction on what is appropriate sustainability criteria to be incorporated in the procurement process. For example, under the effectiveness attribute, there is no definition of what a local contractor is.			
Social Impact Assessment & Mgmt	The protocol is too comprehensive. The assessor is asked to consider the extent to which positive social benefits are identified and likely to be achieved. The key social benefit is tourism which is also addressed in the Economic Viability Including Additional Benefits aspect - this reflects an ongoing issues with the matrix approach, there is consider 'double counting' where a score is the same for an attribute across a number of aspects.		While this aspect is always relevant, it was challenging to see its relevance beyond what was covered in the heritage and Indigenous aspects. The project's approach to assessment has been targeted to the two key risk areas rather than a full SIA being conducted.	
Project Affected Communities	There appears to be a significant opportunity to incorporate the assessment attribute of this into the SIA aspect - currently the SIA aspect does not incorporate rights-based approach to assessment in either the criteria nor in the auditing guidance notes.			Incorporate a rights-based approach to SIA into the SIA & Management aspect. Does this aspect evaluate both negative and positive impacts?
Indigenous Peoples		The protocol should be made explicit that archaeological Indigenous heritage is addressed under the Cultural Heritage aspect - although this can be a very artificial distinction for many Indigenous people.		
Resettlement & Land Acquisition				
Benefit Sharing			There is an inconsistency between the criteria for this and that in Project Affected Communities, as it says that it is always relevant.	
Labour & Working Conditions				
Cultural Heritage				
Public Health			For Lake Margaret this Aspect did not appear to be relevant.	
Asset & Community Safety				
Environmental Impact Assessment & Mgmt				
Catchment Management			Is this relevant for Lake Margaret as the project is not changing the water management processes and the current impacts are very low.	

ASPECT NAME	Comprehensiveness	Understandability	Difficulties or issues	Recommendations for improvement
Reservoir Management	The protocol is too comprehensive. The Lower Lake Margaret Power Station is the lower facility in a cascade operation. In terms of the redevelopment the reservoir management aspect was being assessed and managed through the Upper Lake Margaret Power Station redevelopment therefore it appeared redundant to assess it twice.			
Environmental Flows & Downstream Sustainability				
Biodiversity & Invasive Species			The assessor is required to score the attribute consultation, however the assessor does not believe that consultation was required considering the context of the redevelopment and is unsure whether to score 1 because no consultation was undertaken or a not applicable.	
Erosion & Sedimentation				
Water Quality				
Trailing Report Part 3 Section III				
ASPECT NAME	Comprehensiveness	Understandability	Difficulties or issues	Recommendations for improvement
River Basin & Transboundary Issues				
Economic Viability incl. Additional Benefits				
Financial Viability				
Public Sector Governance				
Corporate Governance				
Regulatory Approvals				
Integrated Programme Mgmt & Comms				
Construction Management				
Procurement			Clarify the definition of local in the context of the project, as local stakeholders considered the West Coast local rather than what Hydro considered to be local which was those in Tasmania. In addition the PM had the challenge of a local provider who was awarded a significant project but then they subcontracted significant aspects of it out of the area due to the lack of capacity.	
Social Management Plan			The assessor marked this aspect low due to lack of SIA (as required by protocol) and then SMP, however the assessor believes that these aspects were not relevant to the projects.	
Project Affected Communities				
Indigenous Peoples				
Resettlement & Land Acquisition				
Benefit Sharing				

ASPECT NAME	Comprehensiveness	Understandability	Difficulties or issues	Recommendations for improvement
Labour & Working Conditions				
Cultural Heritage				
Public Health				
Asset & Community Safety				
Environmental Management Plan				
Catchment Management				
Reservoir Management				
Environmental Flows & Downstream Sustainability				
Biodiversity & Invasive Species				
Erosion & Sedimentation				
Water Quality			Why isn't this aspect in Section II?	
Waste, Noise & Air Quality				