

# 4 Hydropower performance requirements

The HS Standard performance requirements are based on the definitions of good and best international industry practice of the Hydropower Sustainability Tools. The performance requirements are presented under 12 sustainability topics that cover the environmental, social, governance and climate change aspects important to hydropower development and operation. Each topic includes a principle (i.e. the intent of the topic) and a description of scope. There are two levels of performance requirements: minimum requirements to achieve certification (equivalent to good practice) and advanced requirements for additional recognition (equivalent to best practice). The performance requirements are specified below in a table format grouped by sustainability topic, with each topic showing the requirements criteria-by-criteria for each project life cycle stage.

Assessments against the HS Standard performance requirements are carried out by HS Accredited Assessors in line with the HS Assurance System. Accredited Assessors assess projects against the performance requirements of the HS Standard using the HS Standard Assessment Tool, which offers a practical and user-friendly interface to evaluate project performance.

The HS Standard Assessment Tool is available on the HS website, along with a growing body of resources that build a common understanding of what is expected by the performance requirements. Key resources include the Hydropower Sustainability Guidelines on Good International Industry Practice and topic-specific How-to Guides that describe the practical measure to achieve good practice.

## 4.1 Environmental and social assessment and management

**Principle:** Negative environmental and social impacts associated with the hydropower facility are managed; avoidance, minimisation, mitigation, compensation and enhancement measures are implemented; and environmental and social commitments are fulfilled.

**Scope:** The assessment and planning processes for environmental and social impacts associated with project implementation and operation throughout the area of impact of the project, the contribution of the project in meeting demonstrated needs for water and energy services, and the evaluation and determination of project siting and design options.

### Requirements:

Criteria	Minimum requirements (good practice)	Advanced requirements (best practice)
Assessment	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social impacts</i> – Assessments of project environmental and social impacts have been undertaken for project implementation and operation, including evaluation of associated facilities, scoping of cumulative impacts, role and capacity of third parties, and impacts associated with primary suppliers, using appropriate expertise; and a baseline has been established and well-documented for the pre-project condition</p>	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social impacts</i> – The assessment of project environmental and social impacts takes broad considerations into account, and both risks and opportunities; and the social impact assessment incorporates assessment of human rights.</p> <p><i>Demonstrated need and strategic fit</i> – The assessment is based on dialogue with</p>

against which post-project changes can be compared.

***Demonstrated need and strategic fit*** – An assessment has been undertaken of needs for water and energy services, of options to meet water and energy needs; and of national and regional policies and plans relevant to those needs.

***Siting and design*** – Technical information has been analysed at an early stage alongside social, environmental, economic, financial, and regulatory considerations in order to develop a preliminary project design and some options around this..

**Implementation Stage:**

***Environmental and social issues*** – Environmental and social issues relevant to project implementation and operation have been identified through an assessment process, including evaluation of associated facilities, scoping of cumulative impacts, role and capacity of third parties, and impacts associated with primary suppliers, using appropriate expertise; and monitoring is being undertaken during the project implementation stage appropriate to the identified issues.

***Waste, noise and air quality*** – Waste, noise and air quality issues relevant to project implementation and operation have been identified through an assessment process utilising appropriate expertise; and monitoring is being undertaken during the project implementation stage appropriate to the identified issues

**Operation Stage:**

Systematic processes are in place to identify any ongoing or emerging environmental and social issues associated with the operating hydropower facility, utilising appropriate expertise; and monitoring programs are in place for identified issues.

government planners, policy makers and key stakeholder groups; and the assessment shows a strong emphasis on social and environmental needs, policies and plans including the need for sustainable development of the river basin and integrated water resource management.

***Siting and design*** – Options take into consideration sustainable river basin design and integrated water resources management

**Implementation Stage:**

***Environmental and social issues*** – Monitoring of environmental and social issues during project implementation takes into account inter-relationships amongst issues, and both risks and opportunities that become evident during implementation.

***Waste, noise and air quality*** – Monitoring of waste, noise and air quality issues during project implementation takes into account inter-relationships amongst issues, and both risks and opportunities that become evident during implementation.

**Operation Stage:**

Processes to identify ongoing and emerging environmental and social issues take broad considerations into account, and both risks and opportunities

<p><b>Management</b></p>	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social issues</i> – Environmental and social issues management plans and processes have been developed with appropriate expertise (internal and external) for project implementation and operation with no significant gaps; in addition to key social and environmental issues relating to the hydropower project, plans address construction related waste, noise, air quality, land disturbance and rehabilitation; the environmental and social impact assessment and key associated management plans are publicly disclosed.</p> <p><b>Implementation Stage:</b></p> <p><i>Environmental and social issues</i> – Processes are in place to ensure management of identified environmental and social issues utilising appropriate expertise (internal and external), and to meet any environmental and social commitments, relevant to the project implementation stage; plans are in place for the operation stage for ongoing environmental and social issues management; and the environmental and social impact assessment and key associated management plans are publicly disclosed.</p> <p><i>Waste, noise and air quality</i> – Processes are in place to ensure management of identified waste, noise and air quality issues, and to meet commitments, relevant to the project implementation stage; and plans are in place for the operation stage for ongoing waste management.</p> <p><b>Operation Stage:</b></p> <p>An environmental and social management system is in place to manage measures to address identified environmental and social issues, and is implemented utilising appropriate expertise (internal and external).</p>	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social issues</i> – Processes are in place to anticipate and respond to emerging risks and opportunities; plans are embedded within an internationally recognised environmental management system which is third party verified, such as ISO 14001; and independent review mechanisms are utilised.</p> <p><b>Implementation Stage:</b></p> <p><i>Environmental and social issues</i> – processes are in place to anticipate and respond to emerging risks and opportunities; and plans and processes are embedded within an internationally recognised environmental management system which is third party verified, such as ISO 14001.</p> <p><i>Waste, noise and air quality</i> – Processes are in place to anticipate and respond to emerging risks and opportunities.</p> <p><b>Operation Stage:</b></p> <p>Processes are in place to anticipate and respond to emerging risks and opportunities; and plans and processes are embedded within an internationally recognised environmental management system which is third party verified, such as ISO 14001.</p>
<p><b>Conformance/ Compliance</b></p>	<p><b>Operation Stage:</b></p> <p>Negative environmental and social impacts associated with hydropower facility operations are avoided, minimised and mitigated with no significant gaps; and land disturbance associated with development of the hydropower project is rehabilitated or mitigated.</p>	<p><b>Operation Stage:</b></p> <p>There are no non-compliances or non-conformances.</p>
<p><b>Outcomes</b></p>	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social issues</i> – Environmental and social plans avoid, minimise and mitigate negative impacts.</p> <p><i>Demonstrated need and strategic fit</i> – The strategic fit of the project with needs for water and energy services, and relevant policies and plans can be demonstrated.</p> <p>The final project siting and design has responded to environmental and social considerations.</p>	<p><b>Preparation Stage:</b></p> <p><i>Environmental and social issues</i> – Environmental and social plans avoid, minimise, mitigate and compensate negative project impacts; and plans provide for enhancements to pre-project environmental or social conditions or contribute to addressing issues beyond those impacts caused by the project.</p> <p>The project is one of the priority options to address demonstrated needs.</p>

The project can pay for social and environmental plans and commitments.

**Implementation Stage:**

*Environmental and social issues* – Negative environmental and social impacts of the project are avoided, minimised and mitigated.

*Waste, noise and air quality* – Negative noise and air quality impacts arising from project activities are avoided, minimised and mitigated with no significant gaps, and project wastes managed responsibly.

**Operation Stage:**

Negative environmental and social impacts associated with hydropower facility operations are avoided, minimised and mitigated; and land disturbance associated with development of the hydropower project is rehabilitated or mitigated.

**Implementation Stage:**

*Environmental and social issues* – negative environmental and social impacts are avoided, minimised, mitigated and compensated; and enhancements to pre-project environmental or social conditions or contributions to addressing issues beyond those impacts caused by the project are achieved or are on track to be achieved.

*Waste, noise and air quality* – Negative noise and air quality impacts arising from project activities are avoided, minimised, mitigated and compensated with no identified gaps; project wastes are managed responsibly; and the project contributes to addressing waste management issues beyond those impacts caused by the project.

**Operation Stage:**

Negative environmental and social impacts associated with hydropower facility operations are avoided, minimised, mitigated and compensated.

**4.2 Labour and working conditions**

**Principle:** Workers are treated fairly and are protected.

**Scope:** Labour and working conditions, including employee and contractor opportunity, equity, diversity, health and safety.

**Requirements:**

Criteria	Minimum requirements (good practice)	Advanced requirements (best practice)
Assessment	<p><b>Preparation Stage:</b></p> <p>An assessment has been undertaken of human resource and labour management requirements for the project, including project occupational health and safety (OH&amp;S) issues, risks, and management measures.</p> <p><b>Implementation Stage:</b></p> <p>Human resources and labour management requirements have been identified through an assessment process, including occupational health and safety (OH&amp;S) issues and risks; and processes are in place to identify any emerging or ongoing issues, and to monitor if management measures are effective.</p> <p><b>Operation Stage:</b></p> <p>A periodically updated assessment has been undertaken of human resource and labour management requirements for the operating facility, including occupational health and safety (OH&amp;S) issues, risks, and management measures;</p>	<p><b>Preparation Stage and Implementation Stage:</b></p> <p>The assessment takes broad considerations into account, and both risks and opportunities.</p> <p><b>Operation Stage:</b></p> <p>Identification of ongoing or emerging labour management issues takes broad considerations into account, and both risks and opportunities.</p>