



Sustainable

Hydro Power Website

Scheme Nomination

The International Hydropower Association is developing the Sustainable Hydro Power website to identify and showcase the good performers in the hydropower industry. This website provides basic information on the aspects of sustainability relevant to the hydropower industry, identifies management and mitigation approaches for each aspect, and identifies and summarises schemes that have put these approaches into practice. Inclusion of a scheme on the website is dependent on the scheme demonstrating generally good economic, social and environmental performance, and on top of this demonstrating good management of a particular aspect that would provide an example to others in the industry. This form is a scheme nomination form, to assist in identifying schemes for further investigation for the website.

Name:

Organisation:

Position:

Contact details:

Date:

Scheme Name

Please return completed survey to:

Sustainable Hydro Power Website

c/o Hydro Tasmania
4 Elizabeth St
Hobart TAS 7000
AUSTRALIA

sustainable.hydropower@hydro.com.au

Positive sustainability aspect

(Select a sustainability aspect from the list on the last page, and provide 1 sentence as to why the scheme has been listed under this aspect. Many schemes may warrant multiple listings under different aspects, but select the one that you feel other schemes could potentially learn from)



advancing sustainable hydropower

Overview

(Provide some background on the scheme that helps provide some context - e.g. history, catchment details, development - ideally less than 2 paragraphs)

Scheme Specifications

Scheme operator	Size of scheme (MW)
Country	Catchment area
River	Effective reservoir capacity
Construction years	Reservoir size

Details on sustainability aspect

(Expand on what this scheme has done or exhibits that may provide an example to other schemes for the selected aspect. If insufficient space add further information on separate pages, but endeavour to keep it brief and to the point, ideally less than 1 page)

Other aspects

(Use this section to highlight other aspects listed on the last page that are notable for this scheme and would provide a more complete picture. If insufficient space add further information on separate pages, but endeavour to keep it brief and to the point, ideally less than 1 page)

Further information

(Use this section to direct people to publicly available information on the scheme, e.g. publications, conference papers, website addresses)

External recognition

(Use this section to list any awards, certification, recognition in major scheme reviews, or other forms of recognition of the schemes positive qualities)

List of Sustainability Aspects for Sustainable Hydro Power Website

Environmental Aspects

Environmental assessment and monitoring – Seeking schemes particularly notable for the thoroughness of the environmental assessments undertaken in advance of the development, or the environmental monitoring program once a scheme is operating to test effectiveness of mitigation measures. Some schemes have shown innovative approaches in selection of, for example, site specific biological indicators of ecosystem health.

Siting and design – Seeking schemes that have considered a range of siting and design options and selected the option that minimised potential environmental (and social) impacts, or design was altered based on the findings of the environmental assessment. Some schemes show innovative approaches to design where particular values require protection, e.g. underground power houses.

Construction impacts – Seeking schemes that have gone to thorough and successful lengths to ensure minimal environmental and social impacts during the construction stage.

Erosion and sedimentation – Seeking schemes that have successfully put in practice measures to address potential erosion and sedimentation issues either at the catchment level, within the reservoir, or to protect the downstream environment, e.g. catchment protection measures, water level management plans, bank protection works, flushing flows etc.

Seismic – Seeking schemes notable in how they have successfully dealt with seismic risks.

Water quality – Seeking schemes that have assessed and successfully addressed potential water quality risks, either to protect the quality of inflows to a storage, to avoid or mitigate within reservoir water quality problems, or to avoid or mitigate downstream water quality issues.

Passage of aquatic species – Seeking schemes that have successfully ensured the passage of aquatic species.

Biodiversity and threatened species – Seeking schemes that have successfully implemented measures to ensure protection and/or enhancement of biodiversity values, and/or successfully addressed particular risks to threatened species.

Pest species – Seeking schemes that have successfully assessed and addressed potential pest flora and/or fauna species risks, either at a catchment scale, within the reservoir, or in the downstream environment.

Environmental flows – Seeking schemes that have successfully assessed and ensured the delivery of environmental flows to protect instream values: such flows require a sound understanding of ecosystem function, and should be derived through a consultative process to establish the environmental and social values to be protected.

Social Aspects

Social impact assessment – Seeking schemes where a comprehensive social impact assessment was undertaken to identify the parties affected by a hydropower scheme, and based on this assessment were strategies that ensured avoidance, minimisation or mitigation of potential impacts.

Community engagement and acceptance – Seeking schemes that have achieved broad community acceptance through a process of community engagement and participation in decision-making processes.

Multiple use benefits – Seeking schemes which demonstrate how hydropower schemes can deliver multiple use benefits over and above electricity generation such as irrigation, flood mitigation, water supply and recreation, and that these benefits have been assessed and planned in a holistic fashion.

Public health – Seeking schemes where significant new public health benefits have been provided to previously impoverished areas, and potential negative human health impacts have been adequately assessed, planned for and mitigated against.

Safety – Seeking schemes that provide good examples in how to address dam and other safety risks.

Population displacement – Seeking schemes which are accepted as demonstrating successful assessment, planning and implementation of resettlement programs where these have been unavoidable.

Vulnerable social groups – Seeking schemes which demonstrate successful implementation of measures throughout the project life cycle to ensure that indigenous communities are not socially and economically marginalised and disadvantaged, and to maintain cultural and spiritual identity, and social and economic integrity.

Heritage – Seeking schemes that demonstrate successful avoidance or protection of sites of exceptional national and international heritage value.

Economic Aspects

Distribution and sharing of benefits – Seeking schemes that demonstrate proven and equitable distribution of benefits between government, project proponent and stakeholders such as traditional resource users.

Demonstrated need – Seeking schemes that demonstrate where an assessment of the need for the project was made against alternative demand and supply side options for power delivery.

Cost-benefits and economic performance – Seeking schemes that demonstrate good examples of undertaking a comprehensive evaluation of the impacts on finite resources and project costs and benefits, through a process of cost-benefit analysis and assessment of long-term economic performance.

Longevity of benefits – Seeking schemes that provide evidence that hydropower schemes are long-lived assets, and that appropriate operation and maintenance processes ensured the generation of electricity for decades.

Energy system benefits – Seeking schemes that demonstrate how hydropower projects can deliver broader energy system benefits by supporting wind, solar and ancillary services such as spinning reserve.

Local capacity building – Seeking schemes that demonstrate the successful provision of opportunities for local capacity building, e.g. through creating and maintaining educational and economic opportunities that empower communities to re-establish themselves under changed conditions.

Resource use – Seeking schemes that demonstrate the sustainable use of a natural resource, notably through sophisticated approaches to system and climate modelling, water management, production planning and decision-support systems.