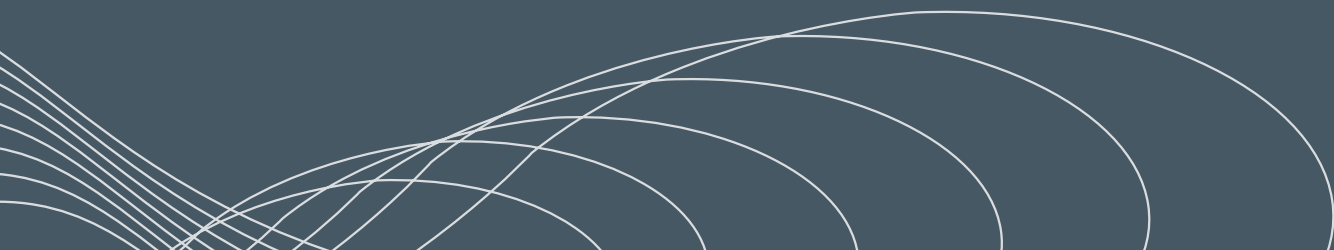




# GLOSSARY, ABBREVIATIONS AND REFERENCES





## Glossary

Term	Meaning
Access road upgrade	Upgrade works (realignment, widening or no widening) of existing access roads
Access road extension	A new access road that is an extension of an existing access road
Accommodation camp	Area used for temporary housing and facilities for construction personnel
Avoidance footprint	Exploratory Works areas excluded from clearing and ground disturbance due to sensitive environmental constraints
Barge access infrastructure	A ramp and associated facilities to allow the loading and unloading of barge(s) on Talbingo Reservoir
Base-load	Represents the minimum continuous level of energy demand in a grid system
Camp Bridge	The permanent bridge structure across Yarrangobilly River
Communications cable	Fibre optic communications cable in Talbingo Reservoir
Disturbance footprint	The area subject to clearing and ground disturbance
Exploratory tunnel	A 3.1 km tunnel to the cavern of the proposed Machine Hall for the purposes of understanding geotechnical and underground conditions
Exploratory Works	A program of exploratory works for Snowy 2.0, subject of this EIS and as described in Section 2
Firming generation/capacity	Energy available within the network to respond to demand when other energy sources, such as intermittent renewables are not operating (due to low wind or low sunlight)
Hydro-electric	Generation of electricity using flowing water (typically from a reservoir held behind a dam or barrage) to drive a turbine which powers a generator
Kosciuszko National Park	A National Park protected under the NSW <i>National Parks and Wildlife Act 1974</i> and managed by NSW National Parks and Wildlife Service. It covers an area of 673,543 hectares and forms part of Australia's only Alpine area
Lobs Hole	A former settlement location within Kosciuszko National Park, and primary location of Exploratory Works
Lobs Hole Mine	The site of a former copper mine circa 1908, located at Lobs Hole
Lobs Hole Road	The road at Lobs Hole, not the main access down to Lobs Hole
Lobs Hole Ravine Road	The main access road to Lobs Hole
Lower Lobs Hole Ravine Road	The section of Lobs Hole Ravine Road from Link Road to where it crosses the transmission easement
Middle Bay barge ramp	Location of barge access infrastructure at the southern end of Talbingo Reservoir
Middle Bay Road	The access road from the accommodation camp to the Middle Bay barge ramp. An extension to Middle Bay Road is proposed as part of Exploratory Works
Miles Franklin Drive	Existing road leading to Spillway Road, for access to the Talbingo barge ramp
Mine Trail Road	The access road from the intersection with Lower Lobs Hole Ravine Road and the portal construction pad. An extension to Mine Trail Road is proposed as part of Exploratory Works
On land rock emplacement area	The locations for rock emplacement at Lobs Hole being the western emplacement area and the eastern emplacement area
Permanent bridge	The permanent bridge crossings comprising Wallace Creek Bridge and Camp Bridge
Portal	Location of surface connection with the exploratory tunnel
Portal construction pad	Area used for construction for the exploratory tunnel and portal, including ancillary facilities, laydown and storage, and environmental controls
Power station	An industrial facility for the generation of electric power
Project area	The area required to access and build project infrastructure, including surface and tunnel components of the project

<b>Term</b>	<b>Meaning</b>
Snowy 2.0	A pumped hydro-electric expansion of the Snowy Scheme that will link the two existing reservoirs of Tantangara and Talbingo through underground tunnels, and include a new underground power station with pumping capabilities
Spillway Road	The access road to Talbingo barge ramp
Subaqueous rock emplacement area	The location for rock emplacement within Talbingo Reservoir
Subaqueous rock placement trial program	An initial trial program of rock emplacement within Talbingo Reservoir of up to 50,000 m <sup>3</sup> will be carried out. The program will be implemented in accordance with a detailed management plan. The program may be continued to include subaqueous placement of a greater proportion of excavated rock (ie up to 750,000 m <sup>3</sup> ) subject to further consultation with relevant authorities
Talbingo barge ramp	Location of barge access infrastructure at the northern end of Talbingo Reservoir
Talbingo Spillway	Structure used to provide the controlled release of flows from Talbingo Dam into the reservoir
Temporary bridge	A temporary structure or causeway across a watercourse to allow construction of permanent bridges
Tumut 2 power station	Underground power station south of Talbingo Reservoir
Tumut 3 power station	Power station at the northern end of Talbingo Reservoir
Upper Lobs Hole Ravine Road	The section of Lobs Hole Ravine Road from where it crosses the transmission easement to Lobs Hole
Variable renewable generation	Intermittent renewable wind and solar energy sources that are non-dispatchable and fluctuating in nature
Wallaces Creek Bridge	The permanent bridge structure across Wallaces Creek
Water services pipeline	Utility pipeline for Exploratory Works providing water supply and waste water discharge between accommodation camp, portal construction pad and Talbingo Reservoir

## Abbreviations

---

ABS	Australian Bureau of Statistics
AC	Acid consuming
ACHA	Aboriginal cultural heritage assessment
AEP	Annual exceedance probability
AHD	Australian height datum
AHMIS	Aboriginal heritage management information system
AMP	Asbestos management plan
ANZEC	Australian and New Zealand Environment Council
APZ	Asset protection zone
AQGGA	Air quality and greenhouse gas assessment
AQMP	Air Quality Management Plan
BAM	Biodiversity Assessment Method
BC Act	NSW <i>Biodiversity Conservation Act 2016</i>
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
BFMP	Bushfire Management Plan
BFRHA	Bush fire risk and hazard assessment
BOS	Biodiversity Offset Scheme
CBA	Cost Benefit Analysis
CBP	Concrete batching plant
CEMP	Construction environment management plan
CHMP	Cultural heritage management plan
COPCs	Contaminants of potential concerns
CSSI	Critical state significant infrastructure
CTMP	Construction traffic management plan
DEC	NSW Department of Environment and Conservation
DECCW	NSW Department of Environment Climate Change and Water
DoEE	Commonwealth Department of the Environment and Energy
DIDO	Drive-in drive-out
DNA	Deoxyribonucleic acid
DPE	NSW Department of Planning and Environment
DPI	NSW Department of Industry

DoI Water	NSW Department of Industry – Lands & Water
DSM	Digital surface model
EIS	Environmental impact statement
EMM	EMM Consulting Pty Limited
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>NSW Environmental Planning and Assessment Regulation 2000</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EPIs	Environmental planning instruments
EPL	Environment protection licence
ERP	Emergency Response Plan
ESCP	Erosion and sediment control plan
FIFO	Fly-in fly-out
FM Act	<i>NSW Fisheries Management Act 1994</i>
FMS	<i>KNP Fire management strategy</i>
FSL	Full supply level
FHWA	Federal highways
g	Gram
GDEs	Groundwater dependent ecosystems
GL	Gigalitre
GL/year	Gigalitres per year
GWh	Gigawatt hour
ha	Hectares
HDPE	High density polythene
HHIMS	Historic heritage information management system
IBRA	Interim biogeographic regionalisation of Australia
ICI	Imperial chemical industries
ICOMOS	Australia International Council on Monuments and Sites
ICNG	Interim construction noise guideline
Jacobs	Jacobs Group (Australia) Pty Limited
kL	Kilolitre
km	Kilometre
km <sup>2</sup>	square kilometre
KNP	Kosciuszko National Park
L	Litres

L/s	Litres per second
LGA	Local government area
LSC	Land and soil capability
m	Metre
m <sup>2</sup>	Square metre
m <sup>3</sup>	Cubic metre
MAT	Main access tunnel
MNES	Matters of national environmental significance
MOL	Minimum Operating Level
MOU	Memorandum of Understanding
MW	Megawatt
MWh	Megawatt hour
NCC	Nature Conservation Council
NEM	National electricity market
NML	Noise management level
NPA	National Parks Association
NPW Act	<i>NSW National Parks and Wildlife Act 1995</i>
NPW Regulation	<i>NSW National Parks and Wildlife Regulation 2009</i>
NPWS	NSW National Parks and Wildlife Service
NSW	New South Wales
NSW Archaeology	New South Wales Archaeology Pty Ltd
NTSCORP Limited	Native Title Services Corporation Limited
NVA	Noise and vibration assessment
OEH	NSW Office of Environment and Heritage
OOH	Out of hours
PAF	Potentially acid forming
PBP	<i>Planning for Bush Fire Protection Guideline</i>
PCTs	Plant community types
PMF	Probably maximum flood
PoM	Plan of management
PV	Photovoltaic
RAPS	Registered Aboriginal Parties
REE Act	<i>Renewable Energy (Electricity) Act 2000</i>
RFS	NSW Rural Fire Service
RMS	NSW Roads and Maritime Services

RNP	<i>Road noise policy</i>
SEARs	Secretary's environmental assessment requirements
SEPP	State Environmental Planning Policy
SHC Act	<i>NSW Snowy Hydro Corporatisation Act 1997</i>
SMP EMP	The Snowing Management Plan Environmental Management Plan
Snowy Scheme	Snowy Mountains Hydro-electric Scheme
Snowy Hydro	Snowy Hydro Limited
SLPs	Service level providers
SEPP	State Environmental Planning Policy
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
STP	Sewage treatment plant
TEC	Total Environment Centre
TECs	Threatened ecological community
TRC	TRC Tourism Pty Ltd
TSP	Total suspended particles
VPA	Voluntary planning agreement
WMP	Water management plan

## References

---

Australian Energy Market Operator (AEMO) 2017, *System Event Report NSW 10 February 2017*, Australian Energy Market Commission.

Australian and New Zealand Environment Council (ANZEC) 1990, *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration*, National Environment Protection Council.

Aplin, K, Ford, F & Hiscock, P 2010, Early Holocene human occupation and environment of the southeast Australian Alps: new evidence from the Yarrangobilly Plateau, New South Wales. In S. Haberle, J. Stevenson and M. Prebble (eds). *Altered Ecologies: Fire, Climate and Human Influence on Terrestrial Landscapes*, Terra Australia 32 Canberra: ANU E-Press, 187-212.

Australia International Council on Monuments and Sites (ICOMOS) 2013a, *Australia ICOMOS Burra Charter*, International Council on Monuments and Sites.

- 2013b, Understanding and Assessing Cultural Significance. International Council on Monuments and Sites.
- 2013c, The Burra Charter and Archaeological Practice. International Council on Monuments and Sites.
- 2017, Intangible Cultural Heritage and Place. International Council on Monuments and Sites.

Boot, P 2000, *An archaeological assessment of proposed track upgrade, pit toilet construction and camping area construction at Denison, Lake Eucumbene, Kosciuszko National Park. A report to South West Slopes Region*, NSW National Parks and Wildlife Service, Tumut.

Commonwealth Government 2015, *Snowy Mountains Scheme*, Commonwealth of Australia.

Fairfull, S & Witheridge, G 2003, *Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings*, NSW Fisheries.

Finkel, A, Moses, K, Munro, C, Effeney, T & O'Kane, M 2017, *Independent Review into the Future Security of the National Electricity Market*.

Geoscience Australia 2017, *Australian Stratigraphic Units Database. Lick Hole Formation*, Australian Government.

Heritage Council of NSW 1996, *NSW Heritage Manual*, Heritage Council of NSW.

- 2006, Historical Archaeology Code of Practice, Heritage Council of NSW.

Jacobs 2017, *Geological/geotechnical Assessment of Existing Tunnels Report and Interpretation for New Underground Structures*, prepared for Snowy Hydro Limited by Jacobs Group (Australia) Pty Limited.

Landcom 2004, *Managing Urban Stormwater: Soils and Construction*, volume 2D, NSW Government.

ICI Technical Services 1995, *Imperial Chemical Industries (ICI) Explosives Blasting Guide*, ICI Services Corporation.



International Association for Impact Assessment 2015, *Social Impact Assessment Guidance for assessing and managing the social impact of projects*, International Association for Impact Assessment.

International Association for Public Participation (IAP2) 2014 *Public Participation Spectrum*, International Association for Public Participation, Australasia. .

Marsden Jacobs Associates 2018, *NEM outlook and Snowy 2.0*, prepared for Snowy Hydro Limited by Marsden Jacobs Associates.

National Health and Medical Research Council (NHMRC) 2011, *Australian drinking water guidelines paper 6 national water quality management strategy*. National Health and Medical Research Council, National Resource Management Ministerial Council, Commonwealth of Australia, Canberra.

National Uniform Drillers Licensing Committee (NUDLC) 2012, *Minimum Construction Requirements for Water Bores in Australia Third edition*, Australian Government National Water Commission.

NSW Department of Environment and Climate Change (DECC) 2008, *Managing Urban Stormwater: Soils and Construction*, NSW Department of Environment and Climate Change.

- 2009, Interim Construction Noise Guideline (ICNG), NSW Department of Environment and Climate Change.

NSW Department of Environment and Conservation (DEC) 2006a, *Kosciusko National Park Plan of Management*, NSW Department of Environment and Conservation.

- 2006b, Assessing Vibration: a technical guideline. NSW Department of Environment and Conservation.

NSW Department of Environment Climate Change and Water (DECCW) 2010a, *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010*, NSW Department of Environment, Climate Change and Water.

- 2010b, Aboriginal cultural heritage consultation requirements for proponents 2010, NSW Department of Environment, Climate Change and Water.
- 2011, Road Noise Policy, NSW Department of Environment, Climate Change and Water.

NSW Department of Primary Industries (DPI) 2013, *Policy and Guidelines for Fish Habitat Conservation and Management*, NSW Department of Primary Industries.

NSW Environment Protection Agency (EPA) 2016, *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*, NSW Environment Protection Agency.

NSW Government 2014, *NSW Renewable Energy Action Plan*, NSW Government.

- 2018, NSW Government Submission on AEMO's Integrated System Plan, prepared by NSW Government, retrieved June 10  
[https://www.energy.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0006/803751/NSW-Government-Submission-on-Integrated-System-Plan.pdf](https://www.energy.nsw.gov.au/__data/assets/pdf_file/0006/803751/NSW-Government-Submission-on-Integrated-System-Plan.pdf)

NSW National Parks and Wildlife Services (NPWS) 1997, *Aboriginal Cultural Heritage Standards and Guidelines Kit*, NSW National Parks and Wildlife Services.

- 2006, Kosciuszko National Park Plan of Management, NSW National Parks and Wildlife Services.
- 2008, Kosciuszko National Park Fire Management Strategy 2008-2013, NSW National Parks and Wildlife Services.

NSW Office of Environment and Heritage (OEH) 2011a. *Kosciuszko National Park Geodiversity Action Plan 2012-2017*, NSW Office of Environment and Heritage.

- 2011b, *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, NSW Office of Environment and Heritage.
- 2012, *The land and soil capability assessment scheme: second approximation*, 2nd Edition, NSW Office of Environment and Heritage.
- 2017, *NSW Biodiversity Conservation Regulation 2017*, NSW Office of Environment and Heritage.

NSW Roads and Maritime Services (RMS) 2002, *Guide to Traffic Generating Developments*, NSW Roads and Maritime Services.

NSW Road and Traffic Authority (RTA) 2009, *Austroads Guide to Traffic Management*, NSW Roads and Traffic Authority.

NSW Rural Fire Services (NSW RFS) 2006, *Planning for Bush Fire Protection*. A guide for Councils, planners, fire authorities and developers, NSW Rural Fire Services.

OnSite Cultural Heritage Management (URS) 2015, *Preliminary Heritage Assessment Lobbs Hole Mine Site Investigation and Remediation Assessment Ravine NSW, Narooma*.

SMEC 2017, *Snowy 2.0 Pumped Storage Project: Project Geology Appreciation*, prepared for Snowy Hydro Limited by SMEC Australia Pty. Ltd.

Snowy Hydro 2017, *Snowy 2.0 Feasibility Study*, prepared by Snowy Hydro Limited, retrieved June 2, <https://www.snowyhydro.com.au/our-scheme/snowy20/snowy-2-0-feasibility-study/>.

Theden-Ringl, F 2016, *Aboriginal presence in the high country: new dates from the Namadgi Ranges in the Australian Capital Territory*. *Australian Archaeology*. 82:1, 25 - 42.

Tindale, N 1974, *Aboriginal Tribes of Australia*, ANU Press, Canberra.

TransGrid 2018, *Integrated System Plan Submission*, prepared by TransGrid, retrieved June 10 <https://www.transgrid.com.au/news-views/publications/Documents/TransGrid%20Submission%20to%20Integrated%20System%20Plan.PDF>.

Vanclay, F 2003, *International Principles For Social Impact Assessment*. *Impact Assessment and Project Appraisal*, 21, 5 - 11.

- 2015, *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects*, retrieved June 6, 2018, from <http://iaia.org/reference-and-guidance-documents.php>.

Wyborn D, Owen M & Wyborn L 1990. *Kosciusko National Park (1:250,000 scale map)*.