SNOWY 2.0 TRANSMISSION CONNECTION PROJECT

BIODIVERSITY OFFSETS PACKAGE

November 2024

Version History

Version	Date	Prepared by	Reviewed by	Comments
1.0	12 January 2023	Nathan Garvey (EMM)	Brett McLennan (EMM)	Draft for comment
2.0	14 March 2023	Nathan Garvey (EMM)	Brett McLennan (EMM)	Final for issue
3.0	31 May 2023	Nathan Garvey (EMM)	Brett McLennan (EMM)	Minor changes and updates
4.0	23 August 2023	Nathan Garvey (EMM)	–	Changes based on feedback from BCD
5.0	29 November 2024	Nathan Garvey (N+A)	Charlie Litchfield (Snowy Hydro)	Revision following approval of Modification 1

Executive Summary

The Snowy 2.0 project is a large-scale pumped hydro-electric storage and generation project being developed by Snowy Hydro Limited (Snowy Hydro) and their partner Future Generation Joint Venture (FGJV). It will increase hydro-electric capacity within the existing Snowy Mountains Hydro-electric Scheme and is critical to underpinning system security and reliability as Australia transitions to a decarbonised economy.

A new transmission connection is required to connect Snowy 2.0 to the National Energy Market (NEM). The Transmission Connection Project (the project) will include a new 500/330 kilovolt (kV) substation, two 330 kV double-circuit overhead transmission lines, and the construction of new access tracks and upgrade of existing access tracks. The project was approved by the NSW Minister for Planning on 2 September 2022, with specific conditions including the requirement for a Biodiversity Offset Package (BOP). This approval was modified in August 2024 providing an extension to the timeframe for implementation and delivery of biodiversity offset measures from 1 September 2024 to 1 September 2025.

The project has an offset obligation for impacts outside Kosciuszko National Park (KNP) under the

NSW Biodiversity Offsets Scheme (BOS). The proponent has several options to meet this obligation, including the retirement of like-for-like credits, retirement of credits in accordance with the variation rules, or payment into the Biodiversity Conservation Fund (BCF). The BOP for the project includes a combination of like-for-like credits, credits under the variation rules and payment into the BCF to meet the residual offset liability.

Snowy Hydro has been assisting landowners to develop Biodiversity Stewardship Agreements (BSAs) over three properties near Tumbarumba, with two of these properties progressing to submission of an application for a BSA and one approved to date. Snowy Hydro estimates that up to 85% of the ecosystem credit liability and 31% of the species credit liability for the project could be secured through these BSAs.

Snowy Hydro is actively securing credits from the market under the like-for-like rules and has secured 452 ecosystem credits and 30 species credits to date. Review of the credit registers and engagement with credit holders is ongoing and Snowy Hydro expects to secure additional credits through this mechanism. Once all reasonable steps have been taken to secure like-for-like credits Snowy Hydro may explore options to secure credits under the variation rules.

The residual credit liability will be met through payment into the BCF in mid-2025. All offset obligations will be able to be met by 1 September 2025.

Contents

1 Introduction 1

1.1 Project overview 1

1.2 Conditions of approval 1

1.3 Offset requirements 3

1.4 Consultation 4

2 Biodiversity offset scheme overview 16

2.1 Retirement of like-for-like credits from existing sites 16

2.2 Credits under the variation rules 18

2.3 Payment into the Biodiversity Conservation Fund 19

3 Biodiversity offset package 16

3.1 Biodiversity stewardship sites 16

3.1.1 Lot 16, DP 755852 (Phillips) 16

3.1.2 Lot 2, DP 556593 (Heinecke) 17

3.1.3 Lots 23, 24, 40, 46, 47, 48 and 202, DP 755874 (Christmas Hill) 17

3.2 Residual offset liability 17

3.2.1 Purchase of credits from the market 18

3.2.2 Payment into the Biodiversity Conservation Fund for residual offset liability 18

4 Timing and responsibilities 20

References 16

Figures

Figure 1 Snowy 2.0 Transmission Connection Project overview 5

Plates

Plate 1 NSW Biodiversity Offset Scheme offset options 16

Tables

Table 1 Offset requirements for impacts outside KNP 3

Table 2 IBRA subregions within 100 km of the outer edge of the project 17

Table 3 Summary of like-for-like credits available to offset impacts of project for impacts outside KNP 18

Table 4 Total credits and cost of payment into the BCF for impacts of project outside of KNP 19

Table 5 Credits generated by the Phillips property 16

Table 6 Credits generated by the Christmas Hill property 17

Table 7 Residual offset liability analysis for project for impacts outside KNP 17

Table 8 Cost of payment into the BCF for the residual offset liability for impacts outside KNP 19

Table 9 Timing and responsibility of tasks required by this BOP 20

1 Introduction

1.1 Project overview

Snowy Hydro Ltd (Snowy Hydro) and its partner, Future Generation Joint Venture (FGJV), are developing Snowy 2.0, a large-scale pumped hydro-electric storage and generation project which will increase hydro-electric capacity within the existing Snowy Mountains Hydro-electric Scheme (Snowy Scheme). Snowy 2.0 is the largest committed renewable energy project in Australia and is critical to underpinning system security and reliability as Australia transitions to a decarbonised economy. Snowy 2.0 will link the existing Tantangara and Talbingo reservoirs within the Snowy Scheme through a series of underground tunnels and hydro-electric power station.

To connect Snowy 2.0 to the National Energy Market (NEM), a new transmission connection is required. NSW Electricity Networks Operations Pty Ltd as a trustee for NSW Electricity Operations Trust (known as Transgrid) sought approval under Part 5, Division 5.2 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) for the construction and operation of the Snowy 2.0 Transmission Connection Project (the project) to enable the grid connection of Snowy 2.0 to the NEM.

The key elements of the project are shown on Figure 1 and include:

- a new 500/330 kilovolt (kV) substation located within Bago State Forest and adjacent to Transgrid's existing Transmission Line 64 (Line 64)
- two 330 kV double-circuit overhead transmission lines, approximately 9 kilometres (km) long, linking the Snowy 2.0 cable yard in Kosciuszko National Park (KNP) to the new substation
- a short overhead transmission line connection between the substation and Line 64
- construction of new access tracks and upgrade of existing access tracks where required to facilitate the construction of the transmission lines and substation and service ongoing maintenance activities
- establishment of temporary sites and infrastructure needed during construction including crane pads, site compounds, a helipad, and equipment laydown (Jacobs 2021).

The project was approved by the NSW Minister for Planning on 2 September 2022 and the Commonwealth Minister for the Environment on 21 October 2022. On 30 August 2024 the Director, Energy Assessments of the NSW Department of Planning, Housing and Infrastructure (DPHI) approved Modification 1 to the Infrastructure Approval for an extension to the timeframe for implementation and delivery of biodiversity offset measures from 1 September 2024 to 1 September 2025. A copy of the NSW Infrastructure Approval (SSI 9717) can be found on the DPHI major projects website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/snowy-20-transmission-connection

A copy of the Commonwealth EPBC Act approval can be found on the Department of Climate Change, Energy, the Environment and Water's (DCCEEW's) website at:

https://epbcpublicportal.awe.gov.au/_entity/sharepointdocumentlocation/9aaefe86-1f2f-ed11-9db10022481867fa/2ab10dab-d681-4911-b881-cc99413f07b6?file=2018-8363-Approval-Decision.pdf

1.2 Conditions of approval

The NSW Infrastructure Approval (SSI 9717) contains several conditions which aim to:

- prevent, minimise, or offset adverse environmental impacts of the project
- set standard and performance measures for acceptable environmental performance
- require regular monitoring and reporting

- provide for the ongoing environmental management of the project.

There are a number of conditions in Infrastructure Approval SSI 9717 relating to the management of biodiversity, including conditions B18 and B19, which set out the requirement for a Biodiversity Offset Package (BOP) and a bank guarantee, respectively.

Condition B18 states:

> *Prior to carrying out any development that would impact on biodiversity values outside Kosciuszko National Park, the Proponent must prepare a Biodiversity Offset Package (Package) that is consistent with the EIS, in consultation with BCS and BCT, to the satisfaction of the Planning Secretary in writing. The Package must include, but not necessarily be limited to:*
>
> (a) *details of the specific biodiversity offset measures to be implemented and delivered in accordance with the EIS;*
>
> (b) *the cost for each specific biodiversity offset measures, which would be required to be paid into the*
> *NSW Government Department of Planning and Environment 10 Snowy 2.0 Transmission Connection*
> *(SSI 9717) Biodiversity Conservation Fund if the relevant measures is not implemented and delivered (as calculated in accordance with Division 6 of the Biodiversity Conservation Act 2016 (NSW)) and the offset payment calculator that was established as of 9 August 2021;*
>
> (c) *the timing and responsibilities for the implementation and delivery of measures required in the Package; and*
>
> (d) *confirmation that the biodiversity offset measures will have been implemented and delivered by no later than 1 September 2025.*
>
> *Following approval, the Proponent must implement and deliver the Biodiversity Offset Package.*

Condition B19 states:

> *Prior to carrying out any development outside of the Kosciuszko National Park that could impact the biodiversity values requiring offset, the Proponent or its nominee must lodge a bank guarantee with a total value of $24,869,236, in accordance with the Deed of Agreement with the Planning Secretary executed on 1 September 2022. The Proponent must comply with the terms of the Deed.*

Condition C2 states:

> *The Proponent must review and, if necessary, revise the strategies, plans or programs required under this approval to the satisfaction of the Planning Secretary within 3 months of the:*
>
> (a) *the submission of an incident report under condition C7;*
>
> (b) *the submission of an Independent Audit under condition C10;*
>
> (c) *the approval of any modification of the conditions of this approval; or*
>
> (d) *the issue of a direction of the Planning Secretary under condition A2 which requires a review.*

Condition 7 of the Commonwealth EPBC Act approval requires the residual impacts of the project to be offset in accordance with the NSW Infrastructure Approval. It states:

To offset the impacts of the Action on protected matters, the approval holder must implement conditions B18, B19 and B20 of the State Infrastructure Approval.

This BOP has been prepared to address the requirements of Condition B18 of the NSW Infrastructure Approval and was updated in November 2024 to address the requirement of Condition C2 to review and, if necessary, revise the BOP following approval of Modification 1. The requirement for the bank guarantee is also discussed in this BOP (see Section 4).

1.3 Offset requirements

Impacts and offset requirements for the project have been determined by Jacobs in the *Biodiversity Development Assessment Report Snowy 2.0 Transmission Connection Project* (BDAR) (Jacobs, 2022). While Jacobs (2022) assesses impacts and required offsets within both the Australian Alps and South Eastern Highlands Interim Biogeographic Regionalisation of Australia (IBRA) regions, this BOP only considers impacts and offsets outside KNP in accordance with Condition B18 of Infrastructure Approval SSI 9717 and the mechanisms outlined in the NSW Biodiversity Offsets Scheme (BOS).

The project will result in clearing of approximately 118 hectares (ha) of native vegetation and habitat for threatened species, including approximately 44 ha of clearing outside KNP. Offset requirements, including ecosystem and species credits, are summarised in Table 1. The credit calculations are based upon the transmission connection layout as proposed in the *Amendment Report Snowy 2.0 Transmission Connection Project* (Transgrid, 2022) and the BDAR (Jacobs, 2022). The credits required to be offset may be less than what is set out in the below tables, subject to final design refinement.

Table 1 Offset requirements for impacts outside KNP

Plant community type (PCT) or species	Offset trading group	Total credits
Ecosystem credits		
PCT 285 - Broad-leaved Sally grass – sedge woodland on valley flats and swamps in the NSW South Western Slopes Bioregion and adjoining South Eastern Highlands Bioregion	Upper Riverina Dry Sclerophyll Forests; >=70% and <90%	87
PCT 300 - Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest on deep clay loam soils in the upper NSW South Western Slopes Bioregion and western Kosciuszko escarpment	Southern Tableland Wet Sclerophyll Forests; <50%	452
PCT 1196 - Snow Gum - Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion	Subalpine Woodlands; <50%	825
Total ecosystem credits		***1,364***
Species credits		
Gang-gang Cockatoo (*Callocephalon fimbriatum*)	-	1,721
Eastern Pygmy-possum (*Cercartetus nanus*)	-	1,789
Yellow-bellied Glider (*Petaurus australis*) endangered population on the Bago Plateau	-	1,697
Masked Owl (*Tyto novaehollandiae*)	-	417
Total species credits		***5,624***
Total credits		**6,988**

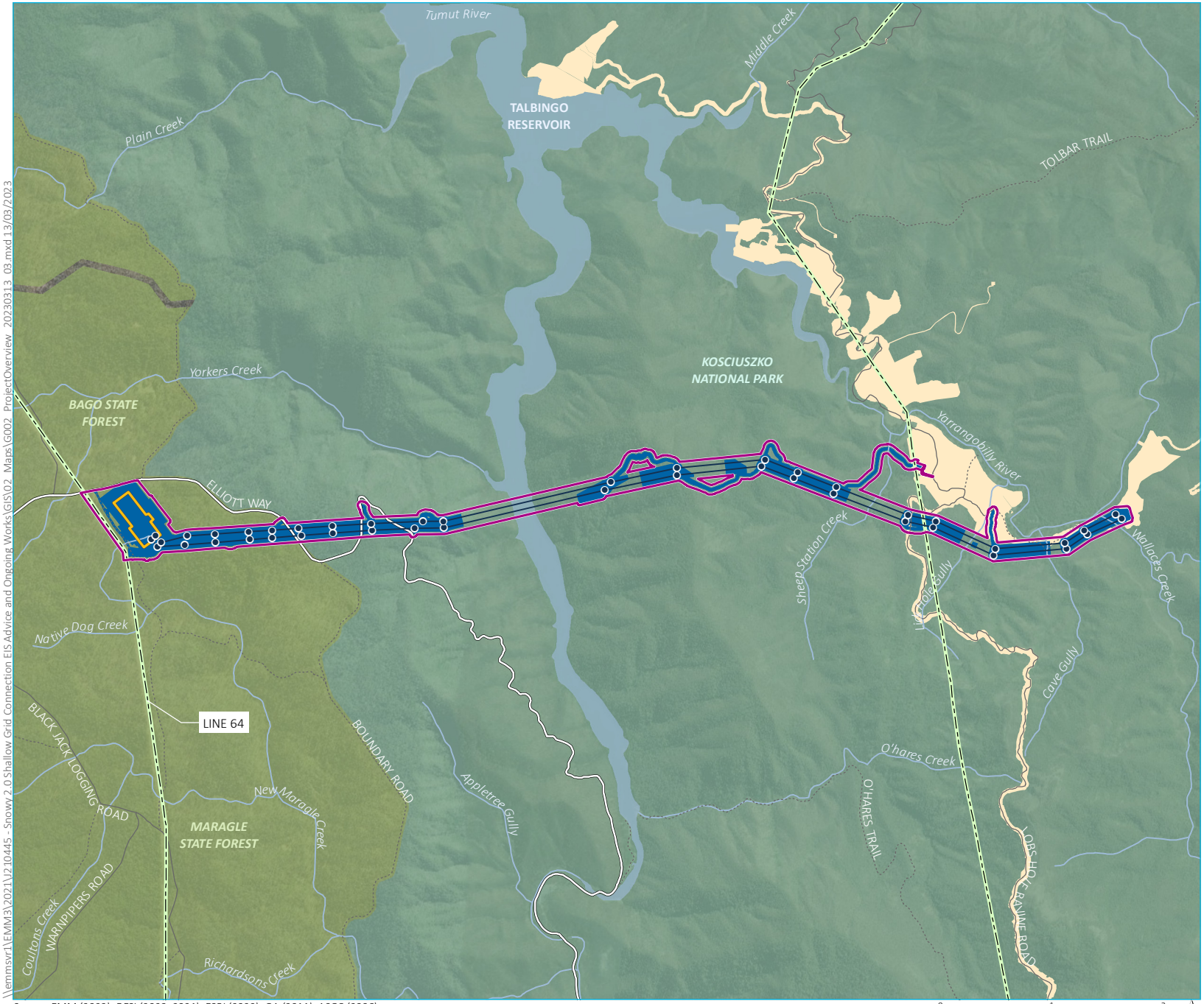
1.4 Consultation

This BOP has been prepared in consultation with the Biodiversity Conservation Division (BCD) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW). A briefing was provided to BCD in December 2022 which included an overview of the structure of the BOP, an update on the status of efforts to identify offset sites, including an estimate of credits generated at shortlisted sites and next steps.

The BOP was provided to BCD in August 2023 and this version has been updated based on comments received from BCD and DPHI.

Consultation with the Biodiversity Conservation Trust (BCT) was undertaken by Snowy Hydro in November 2024 following the update to the BOP. BCD have been contacted for a briefing on updates to the BOP.

At the request for BCD and DPHI, regular six-monthly updates will be provided on the status of the BOP and actions herein.



KEY

- Project area
- Snowy 2.0 disturbance footprint
- Proposed disturbance footprint
- Proposed 500kV substation
- Proposed structure
- Proposed transmission line

Existing environment

- Electricity transmission line
- Major road
- Minor road
- Vehicular track
- Named watercourse
- Named waterbody
- NPWS reserve
- State forest

INSET KEY

- Major road
- NPWS reserve
- State forest

Source: EMM (2023); DFSI (2020, 2021); ESRI (2022); GA (2011); ASGC (2006)

\\emmsvr1\EMM3\2021\P10445 - Snowy 2.0 Shallow Grid Connection EIS Advice and Ongoing Works\GIS\02 Maps\G002 ProjectOverview 20230313 03.mxd 13/03/2023

Snowy 2.0 Transmission Connection Project overview

Snowy 2.0 Transmission Connection Project
Biodiversity Offset Package
Figure 1.1

EMM
creating opportunities

2 Biodiversity offset scheme overview

Under the BOS, several pathways are available to meet the offset obligation arising from the project for impacts outside KNP. These pathways are shown in Plate 1.

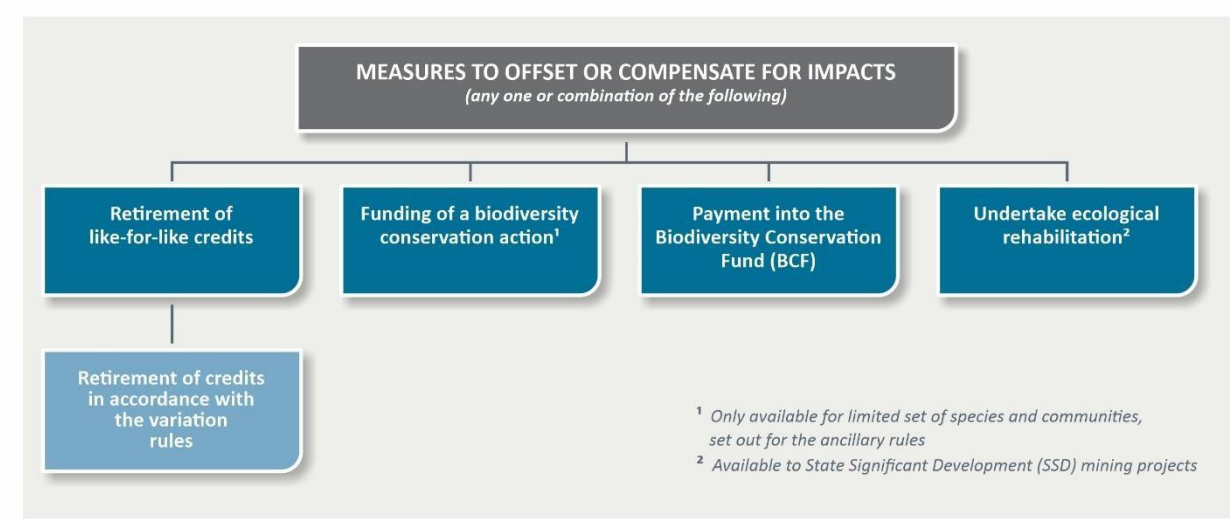


Plate 1 NSW Biodiversity Offset Scheme offset options

Funding of a biodiversity conservation action is only available for a limited set of species and communities, as set out in the *Ancillary rules: Biodiversity conservation actions* (OEH, 2017). The project is not a State significant development (SSD) mining project and thus ecological rehabilitation is not available. This means that offsets will need to be provided via retirement of like-for-like credits, retirement of credits in accordance with the variation rules, or payment into the Biodiversity Conservation Fund (BCF).

The various options available to meet the offset requirements of the project for impacts occurring outside of KNP are discussed below.

2.1 Retirement of like-for-like credits from existing sites

The rules for like-for-like credits are outlined in section 6.3 of the NSW Biodiversity Conservation Regulation 2017 (BC Regulation). This states:

(2) In the case of impacts on threatened ecological communities, like-for-like biodiversity credits represent—

(a) the same threatened ecological community located in—

(i) the same or an adjoining Interim Biogeographic Regionalisation of Australia subregion as the impacted site, or

(ii) any such subregion that is within 100 kilometres of the outer edge of the impacted site, and

(b) if the threatened ecological community contains hollow bearing trees—vegetation that contains hollow bearing trees.

(3) In the case of impacts on the habitat of threatened species that are ecosystem credit species or other native vegetation (other than impacts on threatened ecological communities), like-for-like biodiversity credits represent—

(a) the same class of native vegetation located in—

(i) the same or an adjoining Interim Biogeographic Regionalisation of Australia subregion as the impacted site, or

(ii) any such subregion that is within 100 kilometres of the outer edge of the impacted site, and

(b) the same or a higher offset trading group, and

(c) if the impacted habitat contains hollow bearing trees—vegetation that contains hollow bearing trees.

(4) In the case of impacts on threatened species that are species credit species, like-for-like biodiversity credits represent the same threatened species.

The IBRA subregions within 100 km of the outer edge of the project from which credits can be used to offset impacts arising from the project are outlined in Table 2.

Table 2 IBRA subregions within 100 km of the outer edge of the project

IBRA region	IBRA subregion
Australian Alps	Snowy Mountains
Australian Alps	Victorian Alps
NSW South Western Slopes	Inland Slopes
	Lower Slopes
Riverina	Victorian Riverina
South East Corner	South East Coastal Ranges
South Eastern Highlands	Bondo
	Highlands-Northern Fall
	Kybeyan-Gourock
	Monaro
	Murrumbateman

At the time of preparation of the BOP in May 2023, limited credits were available that would be suitable as offsets for the project, with no credits available under the Biodiversity Assessment Method (BAM) that would meet project needs. Since this time, Snowy Hydro has been able to progress assessment of a number of potential offset sites and a Biodiversity Stewardship Agreement (BSA) has been approved for one site and transferred to Snowy Hydro (see Section 3.1) and credits have been secured from the market. Further, additional credits are now available on the market. Table 3 provides a summary of credits secured to date (November 2024) as well as like-for-like biodiversity credits available in the market to offset impacts of the project outside KNP

Table 3 Summary of like-for-like credits available to offset impacts of project for impacts outside KNP

PCT/species	Offset trading group	Credits required	Credits secured	Credits available
PCT 285 - Broad-leaved Sally grass - sedge woodland on valley flats and swamps in the NSW South Western Slopes Bioregion and adjoining South Eastern Highlands Bioregion	Upper Riverina Dry Sclerophyll Forests; >=70% and <90%	87	0	0
PCT 300 - Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest on deep clay loam soils in the upper NSW South Western Slopes Bioregion and western Kosciuszko escarpment	Southern Tableland Wet Sclerophyll Forests; <50%	452	452	-
PCT 1196 - Snow Gum - Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion	Subalpine Woodlands; <50%	825	1,398	-
Gang-gang Cockatoo	N/A	1,721	87	0
Eastern Pygmy-possum	N/A	1,789	0	1,578[1,2]
Yellow-bellied Glider endangered population on the Bago Plateau	N/A	1,697	1,422	-
Masked Owl	N/A	417	0	18,302[2]

Notes: Credit availability as of 28 November 2024

1. Includes BAM equivalence credits
2. Includes credits pending review

Snowy Hydro has been able to secure the entire offset liability for the Southern Tableland Wet Sclerophyll Forests, <50% cleared and Subalpine Woodlands <50% cleared offset trading groups and partially secure the offset liability for the Yellow-bellied Glider endangered population on the Bago Plateau and the Gang-gang Cockatoo.

Snowy Hydro has made contact with all existing credit owners to seek credit availability and pricing. This contact has determined that while a number of credits are listed on these registers some credits are either committed or are no longer available. Credits are available to suit two species credits species (Eastern Pygmy-possum and Masked Owl). Snowy Hydro will continue to monitor the credit market and contact credit holders.

In addition to the above, there are a small number of sites which have submitted an expression of interest (EOI) to generate BAM credits for two of the species listed above. At this stage the number of credits these sites are capable of generating is unknown and these sites would need to develop a Biodiversity Stewardship Agreement (BSA) to realise these credits and make them available for the project. Initial contact with these landholders indicates they are not willing to enter into a BSA for the number of credits required.

2.2 Credits under the variation rules

Following reasonable steps to obtain like-for-like credits, Snowy Hydro may seek to retire credits under the variation rules. The variation rules allow broader trading as follows:

- For ecosystem credits:
  - they represent the same vegetation formation

- they are in the same or a higher offset trading group
- they represent a location that is in:
    - the same IBRA region as the impacted site, or
    - a subregion that is within 100 km of the outer edge of the impacted site
- if the impacted habitat contains hollow bearing trees - they represent vegetation that contains hollow bearing trees or artificial hollows.

- For species credits:
    - if the impacted species is a plant—they represent a plant
    - if the impacted species is an animal—they represent an animal
    - they represent a species that has the same or a higher category of listing under the BC Act as a threatened species
    - they represent a location that is in:
        - the same IBRA region as the impacted site, or
        - a subregion that is within 100 km of the outer edge of the impacted site.

A review of public registers indicates that currently there are no credits available under the variation rules to meet the residual ecosystem credit liability. There are significant credits available to meet the species credit requirements of the project under the variation rules. Snowy Hydro will continue to investigate these options if credits cannot be sourced through other means.

2.3 Payment into the Biodiversity Conservation Fund

The offset liability for all impacts occurring outside of KNP can be met by paying $25.55 million (M) into the BCF (Table 4). Based on credit secured to date, the residual payment into the BCF is expected to be less than half this amount (see Section 3.2.2).

Table 4 Total credits and cost of payment into the BCF for impacts of project outside of KNP

Credit type	Credits	Payment into BCF (all impacts outside KNP)
Ecosystem	1,364	$8,004,085.60
Species	5,625	$17,541,496.12
Total	**6,988**	**$25,545,581.72**

Notes: Costs calculated using BCF charge quote from 15 December 2023 (no indexation)

3 Biodiversity offset package

The biodiversity offset requirements outlined in Section 1.3 are proposed to be met via a combination of like-for-like credits, credits under the variation rules and payment of the residual offset liability into the BCF, as discussed below.

3.1 Biodiversity stewardship sites

Snowy Hydro has been investigating potential biodiversity stewardship sites for the project, including land within the locality of the project. Snowy Hydro has assisted landowners in developing BSAs over three sites to date to generate credits to meet the needs of the project.

These sites were identified via a spatial analysis completed to identify potential properties that support the ecosystem and species credits required to offset impacts of the project outside of KNP. A total of 95 lots across 52 landholders were identified as potentially supporting suitable PCTs and threatened species habitat.

Based on the above, contact was made with landowners to ascertain their interest in entering into a BSA, with preliminary assessments, including PCT mapping and initial surveys for the Yellow-bellied Glider, undertaken at five properties. This preliminary work identified that three properties had the capacity to generate sufficient credits to meet a significant proportion of the offset requirements for the project across two offset trading groups and one species, with the Yellow-bellied Glider confirmed at two properties.

Since this time, more detailed surveys have been undertaken at these properties to confirm the biodiversity values present, understand management issues and calculate credit yields. Detailed information on each property is provided below.

3.1.1 Lot 16, DP 755852 (Phillips)

A BSA has now been executed over part of Lot 16, Deposited Plan (DP) 755852, the 'Phillips' property. This property is located approximately 11 km east of Tumbarumba.

The Phillips property has secured the entire offset liability for the Subalpine Woodlands <50% cleared offset trading group, as well as meeting a significant portion (84%) of the offset liability for the Yellow-bellied Glider endangered population on the Bago Plateau and the a portion (2%) of the offset liability for the Gang-gang Cockatoo (Table 5).

Table 5 Credits generated by the Phillips property

PCT	Trading group	Credits generated	Credits required	Percentage of credit requirement met
680	Southern Tableland Grassy Woodlands; >90%	2	0	-
1100	Tableland Clay Grassy Woodlands; >=70% and <90%	22	0	-
1196	Subalpine Woodlands; <50%	897	825	>100%
952	Subalpine Woodlands; >=50% and <70%	501	0	-
	Gang-gang Cockatoo	30	1,721	2%
	Yellow-bellied Glider (Petaurus australis) endangered population on the Bago Plateau	1,422	1,697	84%

These credits have been secured by Snowy Hydro, the total fund deposit (TFD) has been paid out and the site is now in active management.

3.1.2 Lot 2, DP 556593 (Heinecke)

A BSA was proposed to be developed within Lot 2, DP 556593, the 'Heinecke' property. This property is located approximately 10 km north-north-east of Tumbarumba.

Surveys undertaken included detailed PCT mapping, plot surveys to ascertain vegetation condition and credit yield, and targeted surveys for the Yellow-bellied Glider using acoustic recording devices. These surveys recorded two PCTs within the site (300 and 952) as well as the Yellow-bellied Glider.

However, a combination of issues has resulted in Snowy Hydro deciding not to progress with a BSA over this site.

3.1.3 Lots 23, 24, 40, 46, 47, 48 and 202, DP 755874 (Christmas Hill)

A BSA is currently under assessment the Nature Markets and Offsets Division of NSW DCCEEW for Lots 23, 24, 40, 46, 47, 48 and 202, DP 755874, the 'Christmas Hill' property. This property is located approximately 9 km north-north-east of Tumbarumba and immediately south of the Heinecke property.

The Christmas Hill property is capable of securing a significant portion (74%) of the offset liability for the Southern Tableland Wet Sclerophyll Forests <50% cleared offset trading group, as well as meeting the residual offset liability for the Yellow-bellied Glider endangered population on the Bago Plateau (Table 6). Whilst credits are available for meet the Subalpine Woodlands <50% cleared offset trading group these credits are not required as this liability is met by the Phillips property.

Table 6 Credits generated by the Christmas Hill property

PCT	Trading group	Credits generated	Credits required	Percentage of credit requirement met
296	Southern Tableland Dry Sclerophyll Forests; <50%	454	0	-
307	Southern Tableland Dry Sclerophyll Forests; <50%	256	0	-
300	Southern Tableland Wet Sclerophyll Forests; <50%	336	452	74%
952	Subalpine Woodlands; >=50% and <70%	556	825	67%
	Yellow-bellied Glider (Petaurus australis) endangered population on the Bago Plateau	550	1,697	32%

3.2 Residual offset liability

A summary of the credits generated by the two BSA sites and the residual offset liability is provided in

Table 7.

Table 7 Residual offset liability analysis for project for impacts outside KNP

PCT/species	Offset trading group	Total credits	Phillips BSA	Christmas Hill BSA	Residual offset liability
Ecosystem credits					
PCT 285 - Broad-leaved Sally grass – sedge woodland on valley flats and swamps in the NSW South Western Slopes Bioregion and adjoining South Eastern Highlands Bioregion	Upper Riverina Dry Sclerophyll Forests; >=70% and <90%	87	-	-	87

PCT/species	Offset trading group	Total credits	Phillips BSA	Christmas Hill BSA	Residual offset liability
PCT 300 - Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest on deep clay loam soils in the upper NSW South Western Slopes Bioregion and western Kosciuszko escarpment	Southern Tableland Wet Sclerophyll Forests; <50%	452	-	336	116
PCT 1196 - Snow Gum - Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion	Subalpine Woodlands; <50%	825	1,398	556	0
Species credits					
Gang-gang Cockatoo (*Callocephalon fimbriatum*)	N/A	1,721	30	-	1,721
Eastern Pygmy-possum (*Cercartetus nanus*)	N/A	1,789	-	-	1,789
Yellow-bellied Glider (*Petaurus australis*) endangered population on the Bago Plateau	N/A	1,697	1,422	550	0
Masked Owl (*Tyto novaehollandiae*)	N/A	417	-	-	417

The two proposed biodiversity stewardship sites are capable of meeting the entire offset liability for the Subalpine Woodlands <50% cleared offset trading group and the Yellow-bellied endangered population on the Bago Plateau. They will also meet a portion of the offset liability for the Southern Tableland Wet Sclerophyll Forests <50% cleared offset trading group and Gang-gang Cockatoo. Overall, the two sites are capable of meeting 85% of the ecosystem credit liability and 31% of the species credit liability.

Options for meeting this residual credit liability for the project are outlined below.

3.2.1 Purchase of credits from the market

Snowy Hydro is actively securing credits from the market under the like-for-like rules and has secured 452 ecosystem credits and 30 species credits. Discussions are ongoing with a number of additional credit holders, and it is expected additional like-for-like credits will be secured from the market.

Once all reasonable steps have been taken to secure like-for-like credits Snowy Hydro may explore options to secure credits under the variation rules.

3.2.2 Payment into the Biodiversity Conservation Fund for residual offset liability

If credits cannot be secured from the two biodiversity stewardship sites or through purchase of credits from the market, Snowy Hydro will meet any residual offset liability through payment into the BCF. Table 8 provides a summary of the cost of meeting the current residual offset liability via payment into the BCF.

Table 8 Cost of payment into the BCF for the residual offset liability for impacts outside KNP

PCT/ species	Total Credits	Cost of payment into the BCF
PCT 285 - Broad-leaved Sally grass – sedge woodland on valley flats and swamps in the NSW South Western Slopes Bioregion and adjoining South Eastern Highlands Bioregion	87	$679,156.80
PCT 300 - Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest on deep clay loam soils in the upper NSW South Western Slopes Bioregion and western Kosciuszko escarpment	116	$372,870.40
Gang-gang Cockatoo (*Callocephalon fimbriatum*)	1,691	$6,250,882.96
Eastern Pygmy-possum (*Cercartetus nanus*)	1,789	$2,317,030.58
Masked Owl (*Tyto novaehollandiae*)	417	$2,058,478.80
Total	**4,130**	**$11,678,419.54**

Notes: Costs calculated using BCF charge quote from 15 December 2023 (no indexation)

4 Timing and responsibilities

The timing and responsibility for the actions required by this BOP are outlined in Table 9.

Table 9 Timing and responsibility of tasks required by this BOP

Component	Activity	Status	Expected date	Responsibility
BOP	Preparation of BOP	Complete	Q2 2023	EMM
	Consultation with BCD	Complete	Q4 2022	EMM
	Approval of BOP	Complete	Q2 2023	DPE
Bank guarantee	Payment of bank guarantee	Complete	Prior to carrying out any development outside KNP	Snowy Hydro
Phillips, Heinecke and Christmas Hill biodiversity stewardship sites	Preliminary investigation	Complete	Q2 2022	EMM
	Detailed investigation	Complete	Q3 2022	EMM
	Targeted surveys	Complete	Q2 2023	EMM
	Submit application for BSA	Complete	Q1 2024	EMM
	Approval of BSAs	Complete (Phillips) In progress (Christmas Hill)	Q4 2024	BCD
	Signing of BSAs	Complete (Phillips) TBC (Christmas Hill)	Q1 2025	Landholder / Snowy Hydro
	Transfer and retirement of credits	Complete (Phillips) TBC (Christmas Hill)	Q1 2025	Snowy Hydro
Sourcing of residual offset liability from the credit market	Search for credits available on the market to meet residual offset liability (like-for-like or variation)	Ongoing	Q4 2023 – Q2 2025	N+A
	Negotiation with landholders around credit availability and pricing	Ongoing	Q1 – Q2 2025	Snowy Hydro
	Purchase, transfer and retirement of credits (if available)	Partially completed – ongoing	1 September 2024	Snowy Hydro
Payment into the BCF for residual credit liability	Application for payment into the BCF for residual offset liability	To be completed	Q2 2025	N+A
	Payment into BCF	To be completed	Q2 2025	Snowy Hydro

Component	Activity	Status	Expected date	Responsibility
BOP implemented	All measures outlined in the BOP implemented and all credit liabilities met	To be completed	1 September 2025	Snowy Hydro

References

Jacobs. (2022). Biodiversity Development Assessment Report: Snowy 2.0 Transmission Connection Project. Prepared for TransGrid. Sydney: Jacobs Group (Australia) Pty Ltd.

OEH. (2017). Ancillary rules: Biodiversity conservation actions. Sydney: Office of Environment and Heritage.

Transgrid. (2022). Amendment Report Snowy 2.0 Transmission Connection Project. Sydney: Transgrid.