Darlington Point

State Significant Development (SSD 8392) Modification 2

Modification Report – Stage 2b of Development

July 2022

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Executive Summary

Proposed Modification

Edify Energy Pty Ltd (**Edify**) has approval for the development, construction and operation of the Darlington Point Solar Farm, being a 275 megawatt (**MW**) photovoltaic solar farm (**SF**) and an adjacent 100 MW-hour (**MWh**) battery energy storage system (**BESS**) (together, the **Development**). The project was approved, subject to conditions, by the Minister for Planning on 7 December 2018 (**SSD-8392**) (the **Development Consent**).

The solar farm has completed construction, achieved registration as a generator in the National Electricity Market (**NEM**) and is now operational and exporting electricity to the grid. As envisaged in the original development application (**Development Application**), the BESS was approved for construction subsequent to the completion of the solar farm.

Edify sought a Modification (**SSD-8392-MOD-1**) to increase the battery capacity to 400 MWh, due to a shift in energy market conditions and improvement in BESS technologies. SSD-8392-MOD-1 was approved on 22 October 2021, and reflected in an updated Consolidated Consent (still referred to as Development Consent or Consent).

Edify obtained approval from the Secretary in March 2022 to stage the Development on the basis that the scope of works for the BESS is distinct from the construction and operation of the Solar Farm (SF) stage of the Development. In April 2022, the Secretary approved the staging of the strategies, plans, programs, and sub plans associated with the construction, operation, and decommissioning of the BESS. The BESS is considered to be Stage 2 of the Development. Further, on 7 June 2022, the Secretary approved the staging of the BESS Stage of the Development, being Stage 2a: Site Preparation for the BESS, and Stage 2b: BESS battery components and connections to the TransGrid Substation. Stage 2a commenced in June 2022.

The Development Consent includes approval for the construction, installation, and operation of the BESS, with a capacity of 200 MW/ 400 MWh, within the approved development footprint on Lot 1 DP1249830 (**Figure 1**). The Development Consent also includes approval for the cabling and associated equipment to connect the BESS to and through the existing TransGrid Darlington Point Substation however, the biodiversity values and impacts of the cable routes and trenching impact areas was not included in the Darlington Point Biodiversity Assessment Report (**DP BAR**). Furthermore, temporary construction areas which are now required were not contemplated at the time of SSD-8392 Development Application and SSD-8392-MOD-1 submissions and approvals, and thus the biodiversity values and impacts of these areas was also not included in the DP BAR. Additionally, the Development Consent did not contemplate a subdivision of Lot 1 DP1249830 for the Riverina BESS Substation.

The changes proposed in this Modification Application (**SSD-8392-MOD-2**) are to:

1. create a new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation;
2. to allow for temporary construction areas to be utilised within the TransGrid Darlington Point Substation on Lot 2 DP628785; and
3. to provide the TG BDAR to demonstrate the biodiversity values and impacts have been properly assessed for Stage 2b of the Development.

This Modification Application seeks to authorise these changes on the basis that:

1. it is necessary to further subdivide Lot 1 DP1249830, to create a new lot to house the Riverina BESS Substation and permit ownership of the electrical substation by the incumbent Transmission Network Service Provider (TNSP)

2. the increase in biodiversity impact will be minor, resulting in the total additional loss of 0.92ha of native vegetation associated with the temporary construction facilities and the connection cable routes/trenches. The BAM calculation has been completed and an offset liability of 28 Ecosystem Credits for PCTs, ecological communities and threatened species habitat; and 285 of Species Credits for threatened species will be retired upon completion of the BESS construction. There are no changes to the approved mitigation strategies required.

An Updated Development Description is provided as **Appendix A**. An updated site layout of the Development (to include the temporary construction areas and final cable/trenching routes) will be provided to replace Appendix 1 of the Development Consent. It is noted the cable trenching and temporary construction areas being temporary impact areas will be allowed to naturally regenerate post-construction and not be permanent footprint areas of the Development. These areas will continue to comprise the Darlington Point Substation operated and managed by TransGrid, and thus will not result in a change to the approved development footprint of the Development.

To facilitate these modifications to the approved Development, corresponding changes to the conditions of the Development Consent are proposed. These include:

- Schedule 3, Condition 9
  a) Table 1 – amend the Biodiversity Credit Requirements table to include the additional PCT 45 and new PCT 26 credits; and the additional Species credits; OR
  b) amend the condition to include a new table or entry specific to the biodiversity credits associated with the BESS stage of the Development, allowing for an alternative timeframe for which the offset would need to be surrendered. This may be preferable as the additional/new biodiversity credit requirements specific to Stage 2b of the Development will not be conditional on the comparison of the actual impacts on PCT45 against the impacts predicted in the EIS. That arrangement was established for the Solar Farm impacts in the panel areas of the Development, with monitoring and reporting of the grassland areas required. This will not be the case for the impact areas associated with Stage 2b of the Development (this Modification).
- Schedule 3, Condition 12 – amend or add a new sub-condition (e.g. 12A) to include a requirement to develop a separate Biodiversity Management Plan for construction of the BESS stage of the Development. There should be no operational BMP for the BESS area of the Development as the biodiversity impacts are deemed to be permanent, resulting in total loss of habitat.
- Appendix 1: General Layout of Development – amend to include the temporary construction areas and the cable/trenching routes within Lot 2 DP628785 (as in inset image of the TransGrid Darlington Point Substation area).
- Appendix 2: Schedule of Land – amend to include new lot number and deposit plan number once the new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation is finalised.

Strategic Context

The objectives of the approved Darlington Point Solar Farm remain unchanged from those set out in the EIS. While it is noted changes in renewable energy and climate change legislation, policy and planning frameworks at a Commonwealth and State level have occurred since the original Development approval, the Project remains consistent with the evolved strategic context. This includes with the framework and goals set by the:

- Commonwealth Renewable Energy Target
- Commonwealth Integrated System Plan 2020
- NSW electricity policy, encompassing:
  - *NSW Transmission Infrastructure Strategy (DPE, 2018)*
  - *NSW Electricity Strategy (DPIE, 2019)*
  - *NSW Electricity Infrastructure Roadmap (DPIE, 2020)*

Statutory Context

The approved Darlington Point Solar Farm is classified as a SSD, which is subject to the Development Consent as modified on 22 October 2021. The statutory context to the Project was described in Section 4 of the EIS for the Project. The statutory context remains unchanged to that previously considered in the EIS, subject to the further updates outlined below.

Engagement and Consultation

Edify has engaged and consulted with DPE to discuss and confirm the nature of the proposed modification and confirm the modification application and report requirements. DPE has acted as a conduit between Edify and BCS, and has responded to biodiversity queries and clarifications in lieu of BCS. Edify has also engaged and consulted with Biodiversity and Conservation Sciences (BCS) and TransGrid to advise of the proposed modifications and seek feedback and advice on the modification application. The engagement and consultation process and outcomes is provided in Section 5 in this report.

Assessment of Impacts

Biodiversity

- A total of 0.88ha of PCT 45 and a total of 0.04ha of PCT 26 will be impacted by Stage 2b works in Lot 2 DP628785. This additional native vegetation impact generates an offsetting requirement of 28 Ecosystem Credits and 285 Species Credits
- Impact is minor. No additional changes to approved mitigation measures are required.

Aboriginal Heritage

- The nearest recorded Aboriginal archaeological site is approximately 303m to the south of the proposed Substation Compound Area included in this Modification.
- There will be no impact. No changes to approved mitigation measures are required.

Justification of the Modified Project

The overarching justification of the Development and its benefits would not change as a result of the proposed modifications outlined in this Modification Application. The modifications are required to support the delivery of the Development by ensuring that construction of the BESS stage of the Development can be carried out efficiently and in full compliance with the Development Consent.

The Modification to the Development Consent proposed in this report is required to deliver an efficient, constructable and commercially viable battery system and handover of the electrical substation to the TNSP.

The proposed modifications have been demonstrated to be of minimal environmental impact, with a minor increase in biodiversity impact resulting in the total additional loss of 0.92ha of native vegetation associated with the temporary construction facilities and the connection cable routes/trenches. The BAM calculation has been completed and an offset liability of 28 Ecosystem Credits for PCTs, ecological communities and threatened species habitat; and 285 of Species Credits for threatened species will be retired upon completion of the BESS construction. These impacts are significantly outweighed by the positive impacts for the Development.

No changes to the mitigation measures are required.

However, if approved, updates to the following plans will be required:

- Construction Environmental Management Plan
- Traffic Management Plan

- Fire Safety Study
- Emergency Plan

A new Biodiversity Management Plan (BMP), as a separate BMP for the BESS stage of the Development, will also be required.

1 Introduction

1.1 The Approved Project

Edify Energy Pty Ltd (**Edify**) has approval for the development, construction and operation of the Darlington Point Solar Farm, being a 275 megawatt (**MW**) photovoltaic solar farm (**SF**) and the adjacent 100 MW-hour (**MWh**) battery energy storage system (**BESS**) (together, the **Development**), approximately 10 kilometres south of Darlington Point on Donald Ross Drive, in the Murrumbidgee local government area of New South Wales (the **Site**). The project was approved, subject to conditions, by the Minister for Planning on 7 December 2018 (**SSD-8392**) (the **Development Consent**).

The solar farm has completed construction, achieved registration as a generator in the National Electricity Market (**NEM**) and is now operational and exporting electricity to the grid. As envisaged in the original development application (**Development Application**), the BESS was approved for construction subsequent to the completion of the solar farm, with construction recently commenced on this portion of the project.

Edify sought a Modification (**SSD-8392-MOD-1**) to increase the battery capacity, on the basis that the need for battery energy storage system installations in the NEM has increased significantly since the Development Consent was approved, and as the need to replace the forecast retirement of existing base-load conventional generation (typically fuelled by coal) increases. When operational, the BESS will not only provide firming support to enable increased penetration of renewable energy but will also provide network system strength support in the region surrounding the Development.

SSD-8392-MOD-1 was approved in October 2021, allowing for a BESS capacity of 200 MW/ 400 MWh the to be installed. Edify also sought approval from the Secretary in March 2022 to stage the Development on the basis that the scope of works for the BESS is distinct from the construction and operation of the SF stage of the Development. In April 2022, the Secretary approved the staging of the strategies, plans, programs, and sub plans associated with the construction, operation, and decommissioning of the BESS. The BESS is considered to be Stage 2 of the Development.

On 7 June 2022, the Secretary approved the staging of the BESS Stage of the Development, being Stage 2a: Site Preparation for the BESS, and Stage 2b: BESS battery components and connections to the TransGrid Substation. Stage 2a commenced construction in June 2022.

This Modification Application is related to Stage 2b which involves the delivery of the battery packs/units, and the connections from the BESS to the TransGrid Darlington Point Substation (**TG DP Sub**) in Lot 2 DP628785. Edify is seeking to modify the Development Consent to include temporary construction areas for office, laydowns, and carparking within the TG DP Sub. Further, whilst it was determined that the connections scope was included in the Development Consent, the impact area was not included in the Darlington Point Biodiversity Assessment Report (**DP BAR**). Edify will correct this omission by submitting the Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, July 2022 (**TG BDAR**) in this Modification. The TG BDAR also includes the temporary construction facilities impact areas.

Additionally, Edify is seeking to create a further subdivision of the land parcel, on which the majority of the BESS infrastructure will be located (Lot 1 DP1249830), to house the Riverina BESS Substation for the purpose of handing over the new substation to the Transmission Network Service Provider (**TNSP**), TransGrid, to operate independently of the BESS operation.

1.2 Project Location

The Project Site is as shown in **Figure 1**. The BESS is located within Lot 1 DP 1249830 which was subdivided for this purpose following Development Consent approval and is consistent with the final solar farm site layout approved by Murrumbidgee Council. The certified construction drawings were issued to the Department of Planning and Environment (**DPE**) on 21 June 2019 to satisfy compliance with Schedule 2, Condition 6 of the Development Consent, confirming the Project Site.

The Development Consent was approved on the basis of an indicative BESS site boundary (shown in SSD-8392 - Appendix 1), which was based on the draft subdivision plan available at the time of approval. Subsequently, the Project Site boundaries were updated per the submission to the DPE as noted above. As a result of the SSD-8392-MOD-1, the Development Consent was updated to refresh the land parcels involved in the Development, to include the amended Schedule of Land in Appendix 2 of the Consent.

The original Development Application, and SSD-8392-MOD-1, did not contemplate the potential need to further subdivide Lot 1 DP1249830, to create a new lot to house the Riverina BESS Substation which could then be handed over to the TNSP for long-term operation. The proposed new lot is shown in **Figure 3**.

The original Development Application, and SSD-8392-MOD-1, accounted for the cabling and associated equipment to connect the BESS to and through the existing TransGrid Darlington Point Substation. According to Appendix 1 of the Development Consent, a proposed substation connection was illustrated in the General Layout of Development – refer to **Figure 2** below. However, they did not contemplate the use of temporary construction areas in the adjacent TransGrid Darlington Point Substation land on Lot 2 DP628785. These areas are now required to facilitate the storage of and access to the components and construction equipment involved in Stage 2b of the Development, including the connection to the substation. **Figure 4** depicts the connection cable routes and the temporary construction areas relating to Stage 2b of the Development and to this Modification Application.

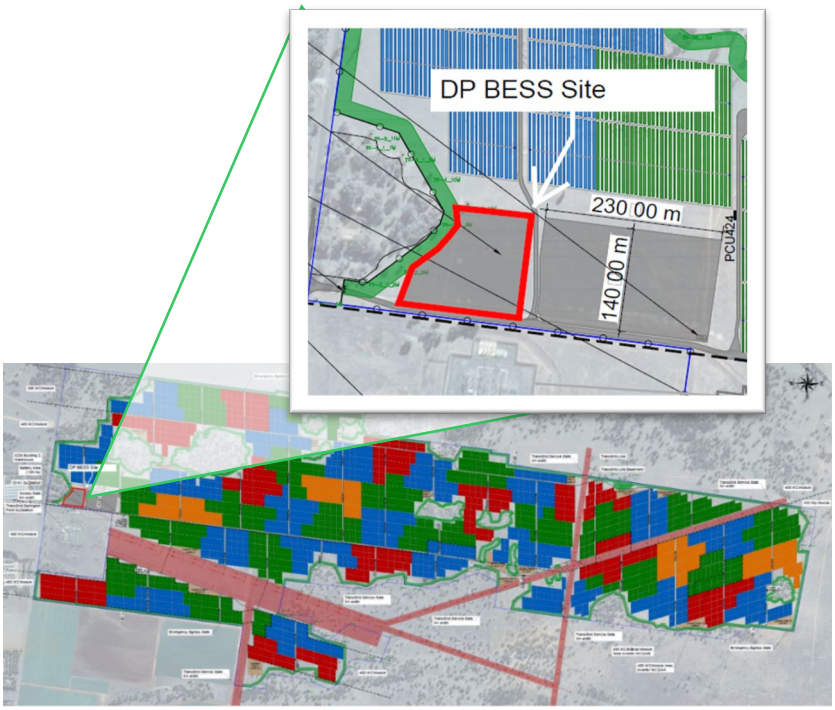

Figure 1 Site layout showing location of the BESS

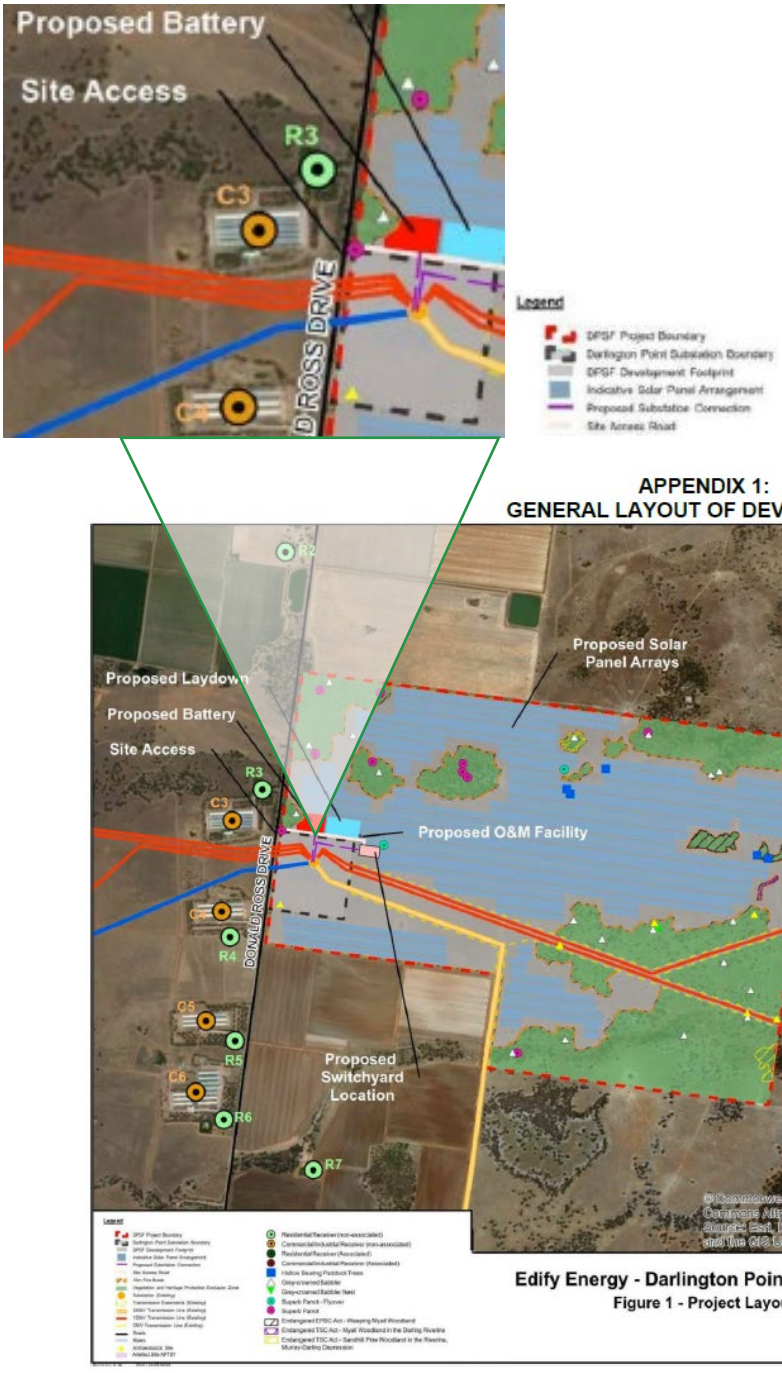

Figure 2 Development Consent approved Proposed Substation Connection from Proposed BESS

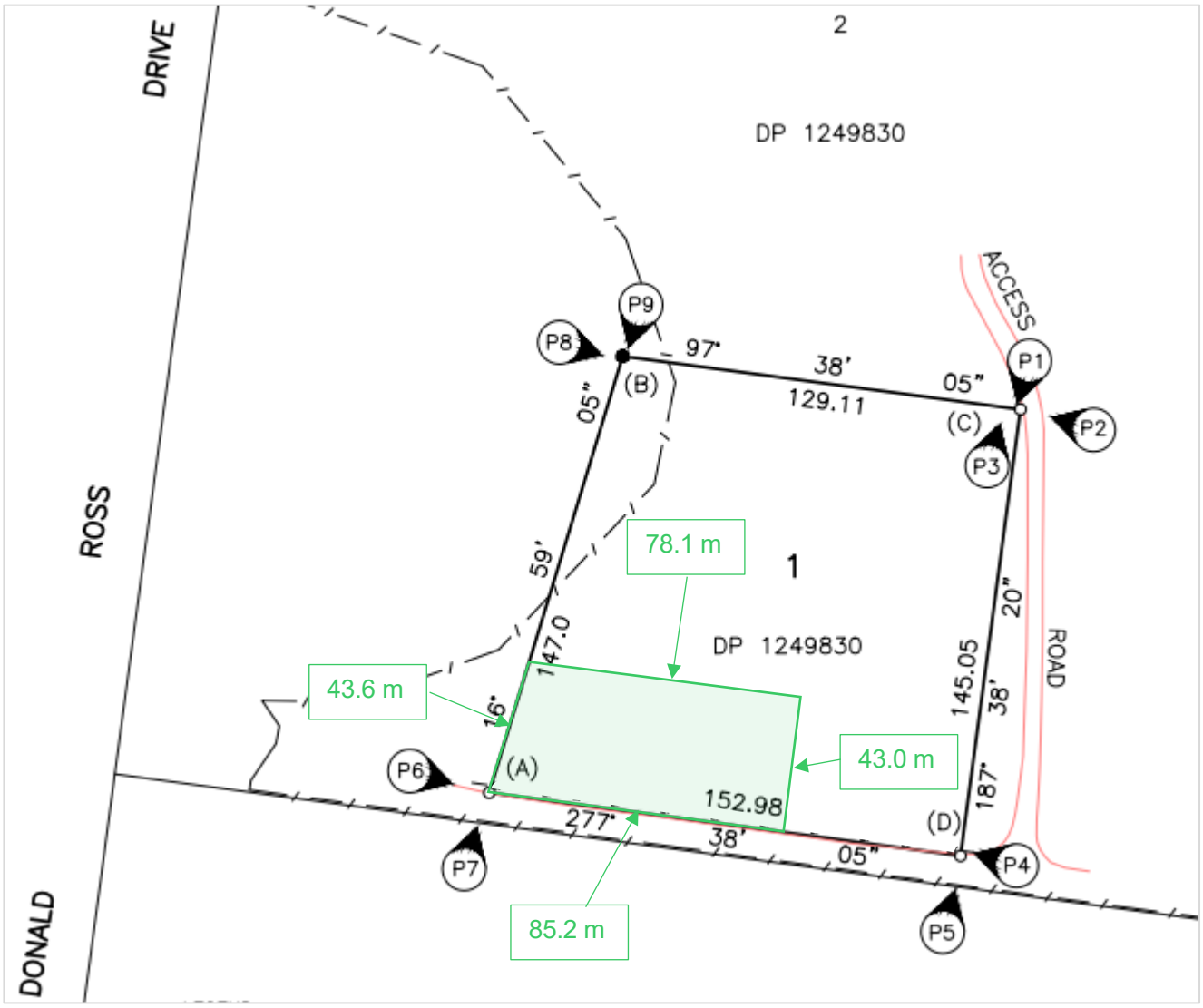

Figure 3 Proposed New Lot for Riverina BESS Substation

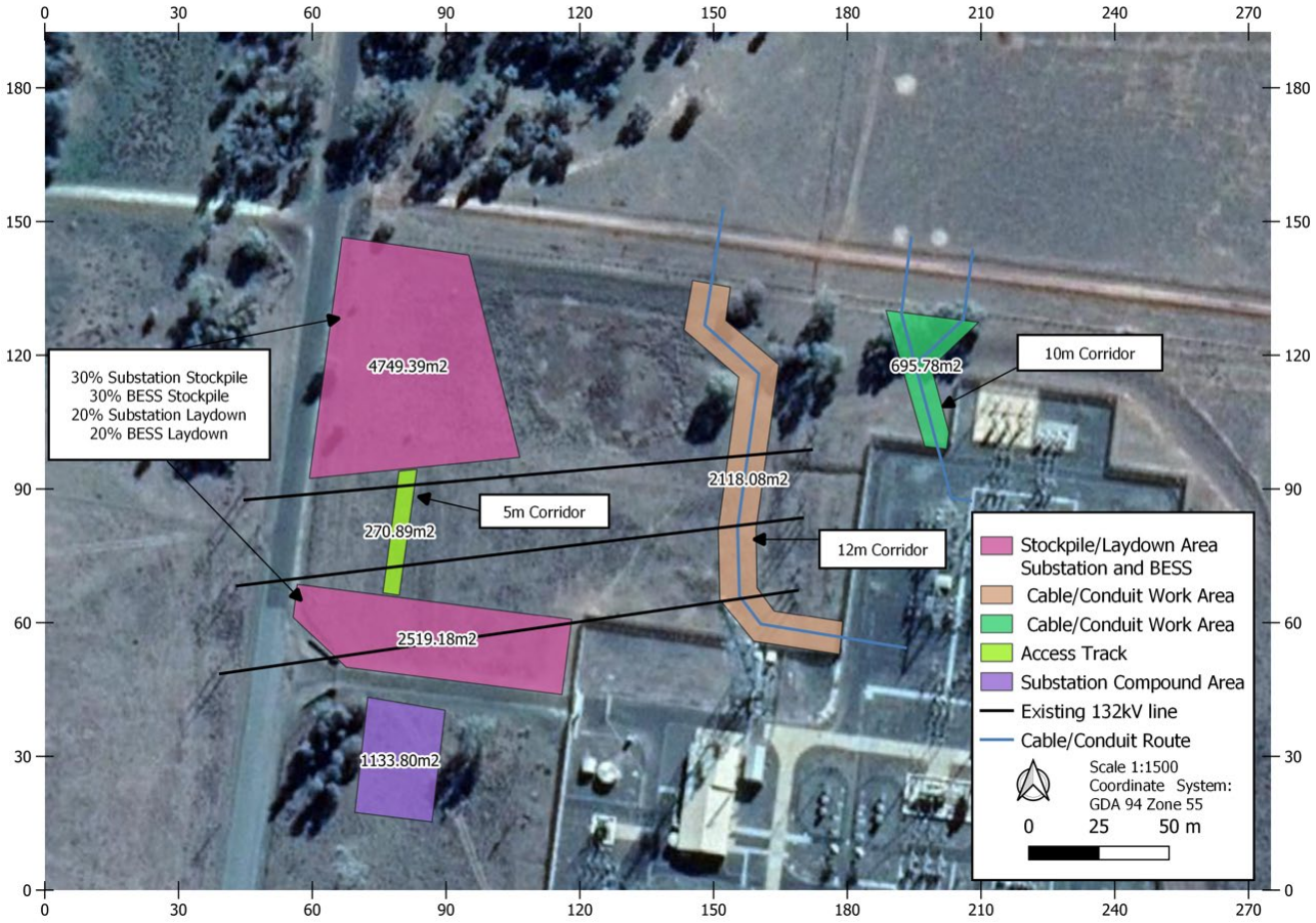

Figure 4 Stage 2b BESS Connection Cable Routes and Temporary Construction Areas

1.3 The Proponent – Edify Energy Pty Ltd

Edify is a market leading, Australian-owned renewable energy company with significant experience in developing and project financing renewable projects across Australia. Edify has financed six (including DPSF) large-scale solar farms and a 25MW / 50MWh BESS, as well as the 200MW / 400MWh Riverina & Darlington Point BESS (the subject of this Modification Application). Edify has broad energy expertise, covering project development, project design and engineering, financing, construction management, energy markets and asset management.

Edify supports the full life-cycle of renewable energy projects during development, construction, and operation, including greenfield development, project structuring and financing, construction management and a full asset management offering, including trading and operations.

Edify's philosophy is to ensure that its interests are closely aligned with its investment and community partners. For this reason, in addition to providing long-term asset management services, Edify seeks to maintain a long-term equity interest in its projects, ensuring that Edify's long-term project view is aligned with that of its investors and community stakeholders resulting in best-in-class assets. This also makes an important difference in our community engagement approach due to the fact that we are establishing relationships with communities during the development phase that will endure for the lifetime of the projects.

1.4 Description of the Proposed Modification

This report (**Modification Application**) has been prepared to support an application to modify the Development Consent. The Modification proposes the following changes to the approved Development:

1. create a new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation;
2. to allow for temporary construction areas to be utilised within the TransGrid Darlington Point Substation on Lot 2 DP628785; and
3. to provide the TG BDAR to demonstrate the biodiversity values and impacts have been properly assessed for Stage 2b of the Development.

To facilitate these modifications to the approved Development, corresponding changes to the conditions of the Development Consent are proposed. These include:

- Schedule 3, Condition 9
  a) Table 1 – amend the Biodiversity Credit Requirements table to include the additional PCT 45 and new PCT 26 credits; and the additional Species credits; OR
  b) amend the condition to include a new table or entry specific to the biodiversity credits associated with the BESS stage of the Development, allowing for an alternative timeframe for which the offset would need to be surrendered. This may be preferable as the additional/new biodiversity credit requirements specific to Stage 2b of the Development will not be conditional on the comparison of the actual impacts on PCT45 against the impacts predicted in the EIS. That arrangement was established for the Solar Farm impacts in the panel areas of the Development, with monitoring and reporting of the grassland areas required. This will not be the case for the impact areas associated with Stage 2b of the Development (this Modification).
- Schedule 3, Condition 12 – amend to include a requirement to develop a separate Biodiversity Management Plan for construction of the BESS stage of the Development. There should be no operational BMP for the BESS area of the Development as the biodiversity impacts are deemed to be permanent, resulting in total loss of habitat.
- Appendix 1: General Layout of Development – amend to include the temporary construction areas and the cable/trenching routes within Lot 2 DP628785 (as in inset image of the TransGrid Darlington Point Substation area).
- Appendix 2: Schedule of Land – amend to include new lot number and deposit plan number once the new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation is finalised.

As required by the State Significant Development Guidelines – Preparing a Modification Report (December 2021), a consolidated, detailed description of the modified project (i.e. an updated project description chapter reflecting the modified project) is provided in **Appendix A**.

An updated site layout of the Development (to include the temporary construction areas and final cable/trenching routes) will be provided to replace Appendix 1 of the Development Consent. It is noted the cable trenching and temporary construction areas being temporary impact areas will be allowed to naturally regenerate post-construction and not be permanent footprint areas of the Development. These areas will continue to comprise the Darlington Point Substation operated and managed by TransGrid and will not be recognised as requiring ongoing management by the Development operators. The connection cables within Lot 2 DP628785 will be managed by the TNSP. The proposed changes do not impact any additional lots from what was already assessed. No road upgrades are required for the modification. Overall, very minor additional impacts are anticipated from the proposed changes. No changes to the mitigation measures are required. Refer Section 6. Updates to the following existing plans will be required:

- Construction Environmental Management Plan
- Traffic Management Plan

- Fire Safety Study
- Emergency Plan

A new Biodiversity Management Plan (BMP), as a separate BMP for the BESS stage of the Development, will also be required.

The above plans will be updated with input from the relevant Authorities prior to submission to DPE. The plans will be uploaded to the Project website..

1.5 Feasible Alternatives

Feasible alternatives were considered as part of the preparation of this Modification Report. It was determined that there are no feasible alternatives because:

- There is no alternative to subdividing the new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation, which would satisfy the operational requirements of the TNSP.
- There is no available land in proximity to the Development site that can be used for the temporary construction facilities areas.

2 Strategic Context of the Project

The Development objectives remain unchanged from the EIS. Edify Energy is committed to the responsible and sustainable development of renewable energy projects in Australia; as such the objectives of the Development are to:

- Support the Australian and NSW governments' strategic goals and targets around renewable energy, climate change mitigation and emissions reduction
- Select a region with a supportive council and local community
- Select a site that would result in acceptable social and environmental impacts during construction, operation, and decommissioning
- Select technologies and design solutions that maximise energy generation and supply to the NEM, especially during peak periods
- Identify opportunities for direct benefits to the local community
- Identify opportunities to provide local and regional social and environmental benefits during construction, operation, and decommissioning
- Produce a development that is commercially viable.

2.1 Contributions to Federal and State Climate Change Policies

Electricity generation is the largest individual contributor of greenhouse gas emissions in Australia, accounting for 32.7 per cent of emissions in the year to March 2020 (Department of Industry 2020). This BESS contributes to the decarbonisation of this emissions intensive sector, through the connection of dispatchable capacity in NSW which enables increased renewable energy generation to be connected to the grid. This is a key focus area of the NSW Government through its NSW Electricity Infrastructure Roadmap (as discussed below) and provides vital support to the NEM through the ongoing and inevitable retirement of traditional, thermal electricity generators that are approaching their intended design-life.

A number of state, federal and international policies and frameworks have been agreed to assist in this transition to a lower emission NEM:

1. The Clean Energy Regulator introduced the Renewable Energy Target (**RET**) in 2001, which is a federal government scheme designed to reduce emissions of greenhouse gases in the electricity sector and encourage additional generation of electricity from sustainable and renewable sources. Based on current and projected renewable energy installations, the national target of achieving 33,000 gigawatt hours of renewable electricity generation (approximately 26-28%) renewable energy by 2030 (*Clean Energy Regulator, 2018*) looks set to be achieved and exceeded.
2. The 2015 Paris Climate Conference (COP21) achieved a legally binding and universal agreement on climate, with the aim of keeping global warming below 2°C, chiefly by reducing greenhouse gas emissions (*Australian Government, Department of Industry, Science, Energy and Resources, 2020*).
3. The DPIE Net Zero Plan Stage 1: 2020–2030 (**Net Zero Plan**) is a commitment by the NSW Government to taking decisive and responsible action on climate change. The Net Zero Plan has the goal of reducing the State's emissions by 35% by 2030, compared to 2005 levels, whilst supporting regional investments that total $7 billion and create approximately 1700 regional employment opportunities (*NSW Government 2020*).
4. The NSW Government has also set a broader goal of net zero emissions by 2050 and has released policies to fast-track emissions reduction over the next decade and prepare the State to take further action in the decades to follow.

As a practical measure to support the above policies and frameworks, the NSW Electricity Strategy was released by the NSW Government in November 2019 to support increased renewable energy generation partially through the use of Renewable Energy Zones (**REZs**). The NSW Electricity Strategy was followed by the NSW Electricity Infrastructure Roadmap released in November 2020 which outlines a plan to build out infrastructure to enable the implementation of REZs. As part of the NSW Electricity Infrastructure Roadmap, the NSW Government has also indicated it would support dispatchable resources (including BESS installations) through firming off-take contracts with individual projects, in which the DP BESS proposed in this Modification could participate.

The federal and NSW state governments' commitment to the introduction of renewable energy to the NEM generation mix has to date resulted in a significant amount of variable renewable generation being connected to the grid, with the rate of connection of new renewable generation expected to increase. These projections are confirmed by the Australian Energy Market Operator (**AEMO**) which has released its 2020 Integrated System Plan to support the transition of the grid from traditional centralised generation sources to renewable sources, and specifically identifies 6-19 GW of new dispatchable resources (including BESS) to be installed by 2040 to provide back-up to variable renewable generation to achieve these targets.

This proposed Modification supports the final stage of the construction of the BESS, which will support the above emissions reduction policies through dispatchable capacity and electricity resources (i.e. BESS) in NSW as required under the ISP and NSW Electricity Infrastructure Roadmap, which will facilitate and enable the planned transition to higher renewable energy penetration in the NEM. Further, the BESS is located within the proposed South-West REZ identified in the NSW Electricity Strategy, and therefore will support the goals and objectives of the NSW Electricity Strategy and NSW Electricity Infrastructure Roadmap in developing at least 12 GW of additional renewable energy generation in NSW by 2030.

2.2 Electricity Market Benefits

AEMO (*AEMO 2020*) forecasts that grid-supplied electricity consumption will remain flat for the next 20 years, despite projected 30% growth in population.

Although not required to meet projected electricity demand, the proposal would benefit the network by balancing the network in an increasingly variable generation focused grid, with the ability to shift energy from high generation / low load periods to higher load / lower generation periods, as well as providing market ancillary services (e.g. frequency control ancillary services, or "FCAS") to support grid stability as grid and market dynamics change.

According to Deloitte, Australian households will pay $510 million more for power in 2020 without renewable growth through the RET and up to $1.4 billion more per year beyond 2020.

Renewables increase competition in the wholesale energy market – and, as in any market, more competition means lower prices. This is particularly true in the case of the dispatchable capability provided by the BESS, which will increase competition and capacity to satisfy peak demands and place downward pressure on electricity prices.

2.3 Socio-economic Benefits

2.3.1 Employment

In 2018/19, 26,850 Australians were directly employed in the renewable energy sector with 5,770 jobs created since the 2017/18 financial year (ABS 2020).

This BESS stage of the Development would generate 30-35 new full time equivalent (**FTE**) jobs during the construction phase in regional NSW, in addition to indirect employment opportunities supported from the ancillary supply chain and construction/operational activities in the region.

The BESS stage of the Development will create a range of direct and indirect employment opportunities (approximately 1-2 FTE jobs) during the operation and maintenance phase (expected to be around 15-20 years). Additionally, employment benefits through contracting opportunities with the project during operations include fence supplies and maintenance, road grading, vegetation management and the grazing and shearing of sheep.

The employment benefits for construction extend through the local supply chains to fuel supply, vehicle servicing, uniform suppliers, hotels/motels, cafés, pubs, catering and cleaning companies, tradespersons, tool and equipment suppliers and many other businesses.

2.4 Development Benefits

As outlined in the EIS, the approved Darlington Point Solar Farm Development will result in a number of benefits, including:

- Contribution of approximately 275 MW AC producing some 577,000 MWh to the Australian RET
- Provision of a clean energy source, with enough power to supply around 130,000 homes each year for 30 years through the NEM (based on typical NSW household electricity consumption specified by Origin Energy in 2016)
- Assisting the RET and Paris Agreement obligations, as well as NSW's own transition to net zero emissions and accelerate advanced energy technology, including battery storage to firm otherwise intermittent renewable energy generation.
- Provision of around 300 jobs during peak construction and about five full-time jobs during operation, with an emphasis on local content amounting to circa 42% of capital deployed.
- Direct and indirect investment into the Murrumbidgee Shire during construction.

- Edify Energy's development intent is to maximise direct benefits to the local community. Opportunities for additional community benefits would be further explored throughout the development process and ongoing through operations.
- Unlocks available connection capacity in TransGrid's Darlington Point node, which is identified by TransGrid as a robust node with large capacity for additional connections (TransGrid, 2016). The proposed DPSF site is considered the optimal location for renewable energy generation at the Darlington Point node and meets the primary key criteria for large scale solar site selection (NSW Government, 2017).

The overarching justification of the Development and its benefits would not change as a result of the proposed modifications outlined in this Modification Application. The modifications are required to support the delivery of the Development by ensuring that construction of the BESS stage of the Development can be carried out efficiently and in full compliance with the Development Consent.

3 Description of the modifications

The Development Consent includes approval for the construction, installation, and operation of the BESS, with a capacity of 200 MW/ 400 MWh, within the approved development footprint on Lot 1 DP1249830 (**Figure 1**). The Development Consent also includes approval for the cabling and associated equipment to connect the BESS to and through the existing TransGrid Darlington Point Substation. However, the Development Consent did not contemplate a subdivision of Lot 1 DP1249830 for the Riverina BESS Substation, nor the use of temporary construction areas in the TransGrid Darlington Point Substation on Lot 2 DP628785.

The changes proposed in this Modification Application are to:

1. create a new land parcel within Lot 1 DP1249830 to house the Riverina BESS Substation;
2. to allow for temporary construction areas to be utilised within the TransGrid Darlington Point Substation on Lot 2 DP628785; and
3. to provide the TG BDAR to demonstrate the biodiversity values and impacts have been properly assessed for Stage 2b of the Development.

The following sections provide further details on the requested Modification.

3.1 New Lot Within Lot 1 DP1249830 for BESS Substation

Upon final selection of the grid connection arrangement, the incumbent Transmission Network Service Provider TransGrid (through their related business Lumea) will be the owner and operator of the 33/132kV substation which is located on Lot 1 DP1249830. In order to facilitate this arrangement TransGrid require either freehold ownership or long-term lease over the proposed land of which the substation assets will be located. In order to provide for this land arrangement, it is necessary to subdivide the lot into two lots (one of which is the substation site).

Lot 1 DP1249830 is currently accessed via a right of carriageway (A) on DP1249830 which runs across Lot 2 DP1249830. This same carriage way will be used to access both of the newly created lots and is contiguous with both new lots without modification.

The current area of Lot 1 DP1249830 is 2.044 ha.

The area of the proposed new lots is (refer to **Figure 3**):

a) Substation Lot – 0.351 ha
b) Battery System Lot – 1.693 ha

All Lots at DPSF are zoned RU1 Primary Production under the *Murrumbidgee Shire Council LEP 2013*. The Murrumbidgee LEP specifies that the minimum subdivision lot size for these lots, as shown on the Lot Size Map is 200 hectares. While these lots are less than this size the current lot is also much smaller than this size and is consistent with intended use for electricity transmission. We believe the creation of an additional lot to permit ownership of the electrical substation by the incumbent Transmission Network Service Provider does not have any material change to the approval.

The proposed subdivision is permissible under Part 4, Division 4.7 section 4.38 of the EP&A Act, which states development consent for State Significant Development 'may be granted despite the development being partly prohibited by an environmental planning instrument'.

We therefore seek approval for the necessary subdivisions from the NSW Department of Planning and Environment as part of this modification of a development application for a for a State Significant Development.

3.2 Temporary Construction Areas in Lot 2 DP628785

Two temporary construction areas, for stockpiles/laydowns and a compound, have been identified for approval in this Modification Application. It was not known these areas might be required at the time of SSD-8392 EIS submission and approval, nor at the time of submission and approval of SSD-8392-MOD-1.

These areas are required to facilitate the storage of and access to the components and construction equipment involved in Stage 2b of the Development, including the connection to the substation. Refer to **Figure 4**. The biodiversity impacts of these areas is briefly contemplated below in Section 3.3 and detailed below in Section 6.2.1.

Edify is seeking approval to impact these construction areas on the basis that the areas will be directly impacted and result in total habitat loss. Edify would surrender the appropriate offset liability, as per the BAM calculations of the ecosystem and species credits which are detailed in the Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, July 2022 (TG BDAR). Additionally, Edify would request consideration to set an alternative timeframe for which the offset would need to be surrendered, and request this be allowed upon completion of construction of the BESS (Stage 2 of the Development).

3.3 Biodiversity Assessment of Stage 2b works in Lot 2 DP628785

The Development Consent includes approval for the cabling and associated equipment to connect the BESS to and through the existing TransGrid Darlington Point Substation in Lot 2 DP628785, however the biodiversity values and impacts of the cable routes and trenching impact areas was not included in the Darlington Point Biodiversity Assessment Report (DP BAR). Furthermore, the temporary construction areas, as outlined in Section 3.2 above, were not contemplated at the time of SSD-8392 EIS and SSD-8392-MOD-1 submissions and approvals, and thus the biodiversity values and impacts of these areas was also not included in the DP BAR.

Therefore, Edify has prepared the Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, July 2022 (TG BDAR) for submission in this Modification Application. The TG BDAR provides a 'worst case' impact assessment, based on a maximum area that may be used to facilitate the temporary construction areas and cable/trenching impact areas.

TG BDAR has assessed the areas of each PCT and vegetation zone within the Stage 2b works areas/footprint. Refer to **Figure 5**. Vegetation zones mapped are:

- 45_Remnant: 0.56 ha
- 45_Slashed: 0.26 ha.
- 45_Planting: 0.06 ha
- 26_Regrowth: 0.04 ha

A total of 0.88ha of PCT 45 and a total of 0.04ha of PCT 26 will be impacted by Stage 2b works in Lot 2 DP628785. This native vegetation impact generates an offsetting requirement of 28 Ecosystem Credits and 285 Species Credits.

The DP BAR identified the 'Battery Facility' as a 2.0ha area which would be a 'direct impact' area (this is in Lot 1 DP1249830 and not associated with this Modification). The direct impact of the battery facility would result in a complete loss of habitat, and the 2.0 ha area was incorporated in the 40.02 ha direct impact to *Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion of NSW South Western Slopes (PCT 45) moderate to good moderate*. There are no ongoing monitoring requirements (e.g. grassland management/monitoring) associated with the directly impacted areas.

According to the TG BDAR, an additional area of 0.92ha of native vegetation (0.88 of PCT 45 and 0.04ha of PCT 26) will be directly impacted by Stage 2b works. Therefore, Edify seeks approval for the additional biodiversity impact resulting from the total loss of habitat in the direct impact areas associated with Stage 2b of the Development. This native vegetation impact generates an offsetting requirement of 28 Ecosystem Credits and 285 Species Credits. Edify intends to purchase or retire the necessary credits on the open market or, if not available, will offset credits through a direct payment into the Biodiversity Conservation Fund.

4 Statutory context

4.1 Approval Status

Approval for the Development (SSD 8392) was granted on 7 December 2018 under Part 4, Division 4.1 of the *NSW Environmental Planning and Assessment Act 1979* (**EP&A Act**). The Development Consent permitted the construction, operation and decommissioning of the DPSF, being a 275 MW photovoltaic solar farm and associated infrastructure, as well as the DP BESS, an adjacent 100 MWh BESS. A Modification (SSD-8392-MOD-1) to increase the battery capacity to 200 MW/ 400 MWh was approved in October 2021.

Edify obtained approval from the Secretary in March 2022 to stage the Development on the basis that the scope of works for the BESS is distinct from the construction and operation of the Solar Farm stage of the Development. In April 2022, the Secretary approved the staging of the strategies, plans, programs, and sub plans associated with the construction, operation, and decommissioning of the BESS. The BESS is considered to be Stage 2 of the Development.

On 7 June 2022, the Secretary approved the staging of the BESS Stage of the Development, being broken into Stage 2a: Site Preparation for the BESS, and Stage 2b: BESS battery components and connections to the TransGrid Substation. Stage 2a commenced construction in June 2022.

Mod 2 (SSD 8392 MOD-2) is the second modification for the Darlington Point Solar Farm project, and relates to Stage 2b of the Development.

4.2 Modification Application

This Modification Application has been lodged under Section 4.55(1A) of the EP&A Act.

Under Section 4.55 of the EP&A Act, a SSD Development Consent can be modified where the "*development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted*".

In determining an application for a modification under section 4.55 of the EP&A Act, the consent authority must consider such matters referred to in section 4.40 as are relevant to the development. These matters include the likely impacts of the proposed amendments to the Development Consent, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.

Modifications are allowed that are 'substantially the same development'. Section 1(A) and Section 2 of Clause 4.55 differ regarding whether the proposed modification is of minimal environmental impact or not.

> ***Environmental Planning and Assessment Act 1979 extract***
> *4.55 Modification of consents—generally*
> *(1A) Modifications involving minimal environmental impact*
> *A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:*
> - *a) it is satisfied that the proposed modification is of minimal environmental impact, and*
> - *b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and*
> - *c) it has notified the application in accordance with:*
>   - *i. the regulations, if the regulations so require, or*
>   - *ii. a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a Development Consent, and*
> - *d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*
>
> *Subsections (1), (2) and (5) do not apply to such a modification.*
>
> *(2) Other modifications*
> *A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:*
> - *a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
> - *b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 4.8) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*
> - *c) it has notified the application in accordance with:*

i. the regulations, if the regulations so require, or
ii. a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a Development Consent, and

d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.

Subsections (1) and (1A) do not apply to such a modification.

The statutory context to the Development was described in Section 4 of the EIS for the Development. The statutory context remains unchanged to that previously considered in the EIS, subject to the updates outlined below. A statutory compliance table for the Development, as amended, is provided in **Appendix C**.

4.2.1 Updated Relevant Considerations and Changed Statutory Context

Changes to SEPPs

Since the original EIS, there have been changes to the State Environmental Planning Policies (**SEPP**) in NSW, including:

- The consolidation of the 45 SEPPs into 11 SEPPs;
- changes to SEPP provisions relating to the state significant development (now contained in the *State Environmental Planning Policy (Plannings Systems) 2021*;
- changes to SEPP provisions relating to koala habitat (now contained in the *State Environmental Planning Policy (Biodiversity and Conservation) 2021*); and
- changes to SEPP provisions relating to renewable energy and regional cities (now contained in the new *State Environmental Planning Policy (Transport and Infrastructure) 2021*).

The Development as modified by the proposed modification would remain consistent with relevant SEPPs and their objectives. No policy changes have been made through the SEPP consolidations.

4.3 Consistency with Existing Approval

Changes which are consistent with the Conditions of Consent do not require a Modification and can be constructed under the existing approval. A review has been undertaken to determine:

1. Whether the change proposed would be substantive changes to the project's nature or description.
2. Whether the change proposed would impact on the ability to meet any Conditions of Consent.
3. Whether the change proposed would have a material change to predicted environmental impacts.
4. Whether additional management strategies (or changes to the required management plans) would be required as a consequence of the changes.

The findings of the review are:

1. The changes proposed will not substantively change the Development, as the project will still involve the construction, operation and decommissioning of a solar farm with a generating capacity of 275 MWac and associated infrastructure; and a BESS with a capacity of 200 MW / 400 MWh.

   The subdivision of Lot 1 DP1249830 is an administrative issue. The connection of the BESS to the TransGrid Darlington Point Substation was approved in the Development Consent, noting the biodiversity impact had not been properly assessed. The small areas to be used for temporary site office, laydown and parking areas during construction of the BESS have been included in the additional

TG BDAR, and these impact areas as well as the cable connection impact areas are contained within the TG Darlington Point Substation, which is included in the Schedule of Land (Appendix 2 of the Development Consent) and therefore within the existing project footprint.

2. There are no Conditions of Consent that cannot be met during the construction, operation and decommissioning of the proposed BESS, and specifically Stage 2b of the BESS.
3. The proposed changes detailed in this Modification will not have a material change to the predicted environmental impacts. Two environmental aspects have been identified for closer assessment in this Modification Report:
   - Biodiversity
   - Aboriginal Heritage

   Other environmental aspects: Traffic and Transport, Visual Amenity; Noise and Vibration; and Hazards and Bushfire Risk have been assessed as resulting in no impacts – refer to **Table 4** in Section 6.1 for summary of assessment.
4. Given the approved staging of the BESS, suitable strategies, plans and programs have been/ are being/ or will be developed for the BESS construction, operation, and decommissioning. Strategies, plans and programs have been approved for Stage 2a, and this stage has commenced construction. Suitable strategies, plans and programs are being prepared for Stage 2b to be submitted to the Secretary for approval. Where practical, strategies, plans and programs approved for Stage 2a will be amended to include the scope of works and any other details applicable to Stage 2b to submit to DPE for approval. Prior to operation and then again prior to decommissioning of the BESS, further strategies, plans and programs will be prepared and submitted to the Secretary for approval in accordance with Schedule 4, Conditions 1, 2 and 3 of the Development Consent.

5 Engagement and Consultation

Edify is a long-term owner and operator of projects. This makes an important difference in our community engagement approach due to the fact that we are establishing relationships with communities during the development phase that will endure for the lifetime of the projects.

There was ongoing consultation and engagement with the near neighbours during the construction phase of the Solar Farm stage of the Development (including via letterbox drops, telephone conversations and house visits). Consultation was undertaken with the neighbours (receivers) for MOD-1, with a focus on visual amenity, noise or vibration levels and traffic movements relating to the increased BESS capacity. No issues or concerns were raised by the neighbours during the MOD-1 consultation process in relation to the proposed modification to the BESS capacity.

For this Modification, engagement and consultation has not been undertaken with nearest neighbours (receivers) as there are no changes to the impacts relating to receivers (e.g. noise, visual, traffic) predicted as a result of this Modification (MOD-2), that had not already been assessed and approved.

Consultation for this Modification (MOD-2) has involved engagement with key government agencies, and is summarised in **Table 1** (Section 5.1), **Table 2** (Section 5.2), and **Table 3** (Section 5.3) below.

5.1 Department of Planning and Environment (DPE)

Edify has engaged and consulted with DPE to discuss and confirm the nature of the proposed modification and confirm the modification application and report requirements. DPE has acted as a conduit between Edify and BCS, and has responded to biodiversity queries and clarifications in lieu of BCS. Some notable details of the consultation to date are provided in **Table 1** below.

Table 1 Consultation with DPE relating to the BESS Stage of the Development, including for Stage 2b

Date	Consultation	Feedback / Action
6 May 2022	Phone call between Edify (Claire Driessen - CD) and DPE (Anthony Ko - AK) to discuss Modification for subdivision of Lot 1 DP1249830 for Riverina BESS Substation and potentially for biodiversity assessment.	NA
12 May 2022	Phone call between DPE (Anthony Ko) and Edify (Claire Driessen): Mod Application per SSD Guidelines; expect this may require stand-alone BESS BMP for Stage 2b once modification approved.	NA
13 May 2022	Email from DPE (Katie Weekes) to Edify Energy (Claire Driessen) regarding review of the existing BMP for the SF Stage of the Development. Advice was that DPE had reached conclusion that a stand-alone BMP for construction of the BESS Stage of the Development should be submitted to meet the requirements under the Consent.	Edify commenced preparation of stand-alone BMP for BESS Stage of the Development.
31 May 2022	Emails between DPE (Anthony Ko) and Edify Energy (Claire Driessen) re: GIS/shapefiles and plot/transect field data for vegetation assessments performed by OzArk (ecologists)	Edify provided spatial files and BAM plot data associated with the BAR.
1 June 2022	Teams Meeting with DPE (Nicole Brewer, Wayne Jones, Anthony Ko) and Edify Energy (Ian Christmas, Claire Driessen) to discuss the further staging of the BESS Stage of the Development to allow for 2a: Site Preparation for the BESS, and Stage 2b: BESS battery components and connections to the TransGrid Substation. DPE advised a Modification Application would be required to provide further approval for the cable trenching, temporary construction areas, and subdivision of Lot 1 DP1249830.	Edify prepared and submitted a Staging Letter to DPE requesting staging of the BESS Stage of the Development and detailing the scopes for Stage 2a and Stage 2b. Edify commenced preparation of this Modification Application: MOD-2. • Modification Report to consider: ○ Biodiversity ○ Subdivision ○ Other environmental values
1 June 2022	Email from DPE (Nicole Brewer) to Edify Energy (Ian Christmas, Claire Driessen) confirming advice regarding Staging,	Edify to prepare Modification to address impacts of connections in TG land, to consult with BCS prior to

Date	Consultation	Feedback / Action
	Management Plans and Modification for works in TransGrid land.	lodgement regarding surveys and BDAR requirement.
14,15 June 2022	Email from DPE (Anthony Ko) to Edify Energy (Claire Driessen) to provide link to *SSD Guideline for Preparing a Modification Report*, to guide Edify in preparing the Modification report. Biodiversity feedback from BCS was also shared, to provide BAM plot data or demonstrate the vegetation is not native.	Edify to review Modification Report to align with new guideline and review biodiversity detail.
16,20 June 2022	Emails between Edify (Claire Driessen) and DPE (Anthony Ko): OzArk (ecologist) feedback on BAM method; requesting assistance to facilitate meeting with BCS	DPE having internal discussion with BCS to confirm if need meeting between parties or proceed using BAR (not BDAR)
24 June 2022	Meeting with BCS (Miranda Kerr), DPE (Anthony Ko, Julia Green), OzArk (Ecologists – David Orchard, Crystal Graham) and Edify Energy (Claire Driessen) to discuss biodiversity issues for Mod-2	Edify/OzArk to provide email to BCS summarising small BDAR approach/ justification and updated disturbance area figure, total disturbance area calc, GIS/shape files. BCS to determine if can support small area BDAR and to confirm survey requirements.
29 June 2022	Phone call from DPE (Anthony Ko) to Edify (Claire Driessen) to provide advice from BCS • BCS not aware of Small Area Assessment on any other projects, prefer Standard BDAR to be provided • BAM Support Team likely to take up to 2 weeks to respond to small area BDAR question	Edify to instruct ecologist to prepare standard BDAR for the Modification Application. DPE to provide response from BAM Support Team when forthcoming.
7 July 2022	Email from Edify (Claire Driessen) and DPE (Anthony Ko) providing BAM calculations and some issues identified by ecologist	Requested assistance to liaise with BCS to seek advice on the calculator and credit values.
8,12 July 2022	Phone call between Edify (Claire Driessen) and DPE (Anthony Ko) to discuss biodiversity queries and BDAR, sharing draft Modification Report with DPE for preview, potential for DPE to consider setting a later timeframe to surrender the offset obligation.	Small Area Assessment not yet confirmed as acceptable by BAM Support Team. Edify to provide draft Modification Report to DPE by COB 15/07/2022.

5.2 Biodiversity, Conservation and Sciences (BCS)

There was ongoing consultation with BCS (or predecessor entities, e.g. OEH) during the construction phase of the solar farm. Edify Energy has consulted with BCS to understand the requirements for the Biodiversity Management Plan (BMP) for the BESS Stage of the Development. The proposed modification to the Development is specific to Stage 2b of the Development, therefore recent consultation with BCS has been targeted at discussing this scope of works. A summary of consultation involving BCS is shown in **Table 2**.

Table 2 Consultation with BCS relating to BMP for BESS Stage of the Development

Date	Consultation	Feedback / Action
8 Apr 2022	Email from Edify Energy (Claire Driessen) to BCS (Andrew Fisher & ROG South West Region Mailbox) and DPE (Katie Weekes) requesting advice form BCS on BMP for BESS Stage of SSD-8392	Request for BCS to review the BMP for BESS stage of Development.
14 April 2022	Email from BCS (Andrew Fisher & ROG South West Region Mailbox) to Edify Energy (Claire Driessen), BCS (Miranda Kerr) and DPE (Katie Weekes) advising substation not included in original biodiversity assessment, additional impact should be assessed using BAM 2020.	Edify to review, engaged with DPE for further advice and clarification on BMP required for BESS stage of Development.
9 May 2022	Email from Edify Energy (Claire Driessen) to BCS (Andrew Fisher & ROG South West Region Mailbox, Miranda Kerr) and DPE (Katie Weekes) advising Edify had continued discussion with DPE on the BMP; providing clarification on 'directly impacted' native vegetation (meaning total loss of habitat).	Edify requested availability for BCS to discuss BESS scope of works on TransGrid substation land, biodiversity assessment and BMP requirements.
10,11 May 2022	Emails between Edify Energy (Claire Driessen) to BCS (Andrew Fisher & ROG South West Region Mailbox, Miranda Kerr) and DPE (Katie Weekes, Anthony Ko) re: map of total direct impact area assessed; data and annual report on BMP obligations achieved	Edify provided requested information and details to BCS.
30 May 2022	Email from Edify Energy (Claire Driessen) to BCS (Andrew Fisher & ROG South West Region Mailbox) and DPE (Wayne Jones, Anthony Ko, Katie Weekes) providing the stand-alone BMP for the BESS Stage of the Development with the new Biodiversity Assessment Report (BAR) for the scope of works in the TransGrid Darlington Point Substation.	Edify requested review by BCS of the BESS BMP and BAR to satisfy the Consent requirement to consult with BCS and prepare a BMP to the satisfaction of BCS and the Secretary.
31 May 2022	Email from BCS (Andrew Fisher & ROG South West Region Mailbox) to Edify Energy (Claire Driessen) and DPE (Wayne Jones, Anthony Ko, Katie Weekes) advising the SW BCD Planning team booked for June, but would attempt to review the BMP and provide advice	Edify Energy sought further advice from DPE regarding further staging of the BESS Stage of the Development.

Date	Consultation	Feedback / Action
	to DPE Post Approvals by 20 June or sooner if able.	
24 June 2022	Meeting with BCS (Miranda Kerr), DPE (Anthony Ko, Julia Green), OzArk (Ecologists – David Orchard, Crystal Graham) and Edify Energy (Claire Driessen) to discuss biodiversity issues for Mod-2	Edify/OzArk to provide email to BCS summarising small BDAR approach/ justification and updated disturbance area figure, total disturbance area calc, GIS/shape files. BCS to determine if can support small area BDAR and to confirm survey requirements.
24 June 2022	Email from Edify Energy (Claire Driessen) to BCS (Miranda Kerr), DPE (Anthony Ko) providing the information requested by BCS in meeting on 24 June 2022 (see above row).	Requested confirmation from BCS that Small Area assessment may be supported/accepted by BCS for the proposed disturbance areas in the TransGrid Substation; and if any further information required for a rapid review and response from BCS.

5.3 TransGrid (TG)

Edify Energy has engaged and consulted with TG (and Lumea) to clarify the works associated with Stage 2b of the Development required on TG DP Substation land on Lot 2 DP628785. Permissions and consents for access for the ecologist to undertake surveys has been provided. A summary of consultation involving TG/Lumea is shown in **Table 3**.

Table 3 Consultation with TG relating to Stage 2b of the Development, works on Lot 2 DP628785

Date	Consultation	Feedback / Action
8 Apr 2022	Email from Edify Energy (Claire Driessen) to Lumea (Nirvana McNaughton) re: how the connections to the TransGrid substation are included in the Consent; if any offset credits required for the works in the TG land.	Edify provided feedback on the inclusion of connection from the BESS to the TransGrid Darlington Point Substation in the Consent.
12 April 2022	Emails between Edify Energy (Sam Hill) and Lumea (Nirvana McNaughton) re: requirements to enable ecologist survey of the proposed works areas on TG substation land.	Edify provided ecologist (OzArk) details, insurances, fieldwork plan and SWMS. Lumea provided letter of consent for ecologist to enter the substation land.
12 May 2022	Meeting of TransGrid (Chris Page, Denise Lo), Lumea (Nirvana McNaughton) and Edify Energy (Sam Hill, Claire Driessen) to discuss status and remaining activities/queries for environment and development approvals relating to footprint/works through TG land.	Edify followed up with DPE to discuss Modification

Date	Consultation	Feedback / Action
28,29 June 2022	Emails between Edify Energy (Sam Hill) and Lumea (Nirvana McNaughton) re: further ecologist survey required, confirming access requirements to enable ecologist survey of the proposed works areas on TG substation land.	Edify provided ecologist (OzArk) details, insurances, fieldwork plan and SWMS. Lumea provided letter of consent for ecologist to enter the substation land.
29 June 2022	Meeting of TransGrid (Chris Page, Ingrid Rios, Imran Hossain, Jess Wilson), CPP (Luke Perabo) and Edify Energy (Sam Hill, Claire Driessen) to discuss any gaps in existing Environmental Approvals that can be captured in the Modification due to be submitted soon. Discussed cable alignment/envelope, interface delays with Essential Energy	TransGrid (Chris Page) noted the substation land is managed grassland and the vegetation integrity score could be lower, thus reducing offset value. TransGrid to provide information to Edify about the maintenance program and activities to support the view of reduced vegetation integrity of the managed grasses.

6 Assessment of Impacts

This section provides a detailed summary of the impact assessment for the proposed modification, including details about the impacts of the modification and the impacts of the modified project. This summary has been prepared having regard to the relevant guidance in the Department's *State Significant Development Guidelines – Preparing an Environmental Impact Statement*. It builds upon assessments conducted at the EIS and further assessments completed as part of SSD-8392-MOD-1, which resulted in a Consolidated Consent that incorporated some changes to the Development Consent. Refer **Table 4** for a consolidated high level summary.

The following environmental issues are considered to be key aspects, and these are explored further in Section 6.2 below:

- Biodiversity
- Aboriginal Heritage

6.1 Summary

A summary of the consideration of potential environmental impacts as a result of the proposed modification is provided in **Table 4** below. The assessment for the proposed modification determined that no changes to the mitigation measures are required. There are some updates required to existing plans, as identified in Section 1.4.

Table 4 Summary of consideration of potential environmental impacts as a result of the proposed modification

Relevant EIS Section	Relevant Modification Report Section	Environmental Issue	Proposed Modification
7.1	6.2.1	Biodiversity	A Biodiversity Development Assessment Report (BDAR) was completed for this Modification. The

Relevant EIS Section	Relevant Modification Report Section	Environmental Issue	Proposed Modification
			TG BDAR concluded this modification will result in minor increase in biodiversity impacts, with an additional 0.88ha of native vegetation to be cleared/disturbed. This Modification (MOD-2) does result in a minor change to the Biodiversity impacts, and therefore will result in minor additional impacts. No changes to approved mitigation strategies are required. However, a separate Biodiversity Management Plan for the BESS stage of the Development will be prepared.
7.4	6.2.2	Aboriginal Heritage	This Modification (MOD-2) does not result in any changes to the Aboriginal heritage impacts, and therefore will not result in any additional impacts. No change to approved mitigation strategies.
7.2	NA	Traffic and Transport	This Modification (MOD-2) does not result in any changes to the traffic levels and movements, and therefore will not result in any additional impacts. No change to approved mitigation strategies.
8.3	NA	Visual Amenity	This Modification (MOD-2) does not result in any changes to visual amenity, with no additional infrastructure or activities that have not already been assessed and approved, and therefore will not result in any additional impacts. No change to approved mitigation strategies.
8.2	NA	Noise	This Modification (MOD-2) does not propose to change any details that will impact noise levels, and therefore will not result in any additional impacts. No change to approved mitigation strategies.
8.11	NA	Hazards and Bushfire	A Preliminary Hazard Analysis (PHA) was completed for MOD-1 with the approval requiring a Fire Safety Study to be completed prior to construction of the BESS, as well as strengthening the Emergency Plan requirements to align with more contemporary BESS approvals. This Modification (MOD-2) does not propose to change any details that will introduce additional hazards, and therefore will not result in any additional impacts. No change to approved mitigation strategies.
8.12	NA	Cumulative Impacts	Cumulative impacts of the additional biodiversity impacts were assessed.

Relevant EIS Section	Relevant Modification Report Section	Environmental Issue	Proposed Modification
			This Modification (MOD-2) results in very minor additional impacts to biodiversity, with no material change to impacts. No change to approved mitigation strategies.

6.2 Key Environmental Aspects

6.2.1 Biodiversity

The BESS, and therefore the biodiversity impact of the installation, was considered within the originally approved development footprint of the Development Consent. However, whilst the connection from the BESS to the TransGrid Darlington Point Substation was included in the Development Consent, the biodiversity values and potential impacts of those works, as well as the additional temporary construction facilities, within the TG Substation were not assessed.

The BESS Site (as shown in **Figure 1**) was assessed as part of the Development Application as having plant community type (**PCT**) of PCT 45 (*Plains Grassland on Alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes*) in moderate to good-moderate condition. During construction of Stage 1 of the Development, the area that makes up Lot 1 DP1249830 (the BESS site) was used as the construction office, parking and the main laydown area to store construction materials and equipment before installation or use in the solar farm construction. As such, the area was cleared as planned and has therefore been directly impacted, with native vegetation permanently removed (complete loss of habitat). This direct loss area has already been factored into the biodiversity offset assessment for the overall development. There will be no increase in the native vegetation impact associated with Stage 2a works (BESS Site Preparation) located on Lot 1 DP1249830.

Edify has completed the Biodiversity Development Assessment Report - TransGrid Substation Connection - Darlington Point, July 2022 (TG BDAR) to assess the biodiversity values and impacts for Stage 2b of the Development. The PCTs and vegetation zones as mapped in the TG BDAR are shown in **Figure 5** (below).

The TG BDAR, in **Appendix B**, has assessed the impact areas associated with Stage 2b (this Modification) for the temporary construction facilities and the cable/trench areas in Lot 2 DP628785 and determined the presence of two plant community types (PCTs), containing one PCT 26 and three PCT 45 vegetation zones. According to the TG BDAR (and discussions with TransGrid), much of the vegetation on the subject land is routinely disturbed by slashing. Broad condition states have been determined by the presence or absence of the key structural elements of the PCT, but differences in composition observed *in situ* and, to a lesser degree, the vegetation integrity (VI) score, calculated in the BAM-C using plot data. This method also compares data collected with the benchmarks for each PCT. The presence or absence of structural elements was assessed both by reviewing plot data and general observations made whilst carrying out field work.

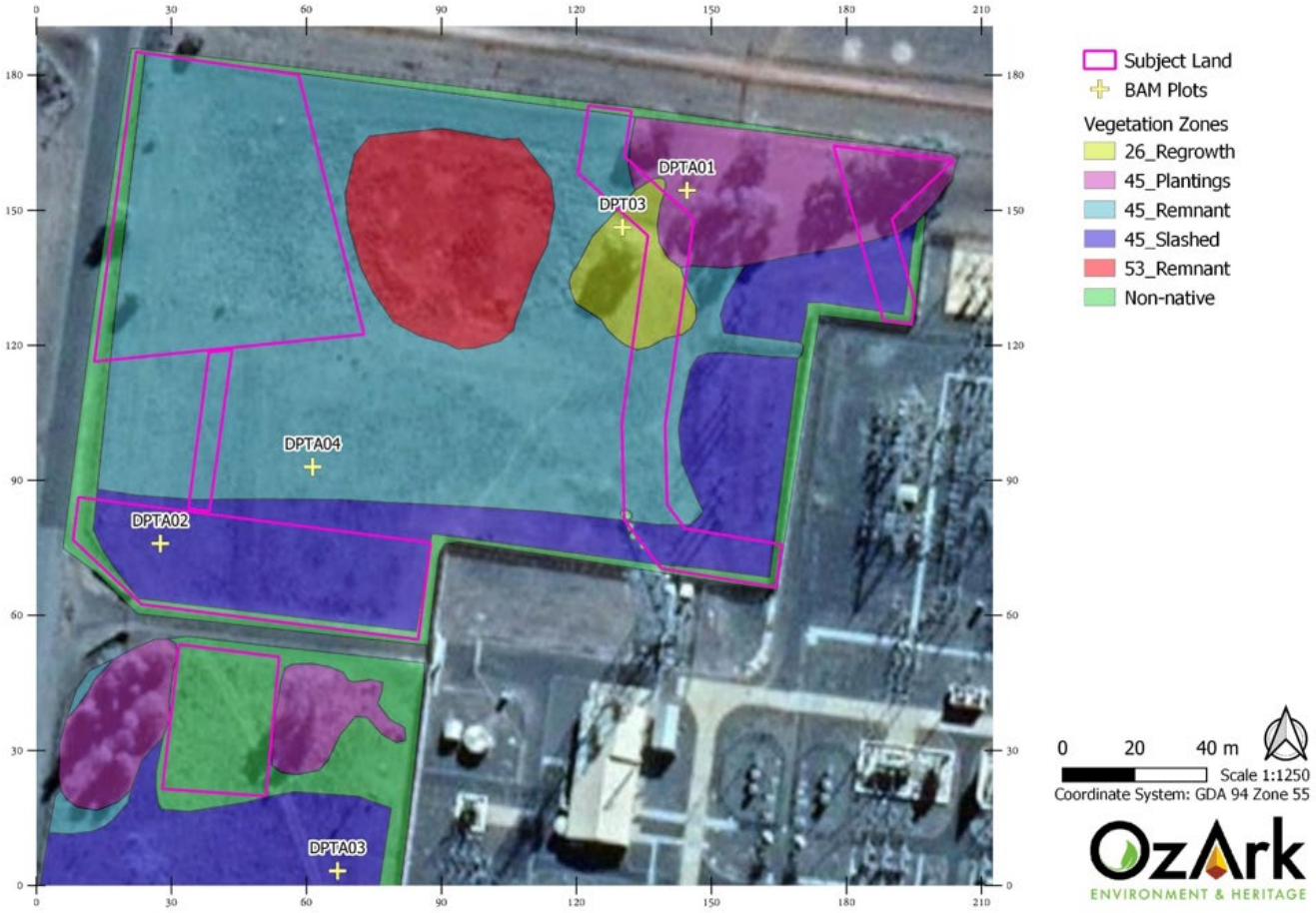

Figure 5 Plant Community Types and Biobanking Plots as mapped in the TG BDAR (Appendix B)

A description of each vegetation zone is provided below:

- PCT 26_Regrowth

  A small open woodland community comprising a single mature tree and accompanying diffuse regrowth. Regrowth is mainly < 1m in height and is located up to 25 m from the mature tree. The understorey is in most respects identical to that of 45_Remnant, which abuts 26_Regrowth to the west, south, and east. To the north, the understorey grades into 45_Plantings. This zone meets the condition criteria to be considered a component of the BC Act-listed Endangered Ecological Community (EEC) *Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions*. It does not meet the conditions for the equivalent EPBC Act-listed EEC, *Weeping Myall Woodlands*, as it falls below the 0.5 ha patch size threshold for that community.

- PCT 45_Remnant

  A grassland typically lacking emergent trees or large shrubs. A sparse, sporadic layer of small shrubs was noted, which included the species Black Rolypoly (*Sclerolaena muricata*), Buckbush (*Salsola australis*), and Ruby Saltbush (*Enchylaena tomentosa*). Groundcover approaches 100% throughout and is dominated by Plains Grass (*Austrostipa aristiglumis*), with Rigid Panic (*Walwhalleya proluta*), Wallaby Grasses (*Rytidosperma* spp.), Queensland Blue Grass (*Dichanthium sericeum* subsp. *sericeum*), Fairy Grass (*Sporobolus caroli*), and Windmill Grass (*Chloris truncata*) as subdominant species. A small number of forbs were recorded, including Quena (*Solanum*

esuriale), Common Woodruff (*Asperula conferta*), and Small White Sunray (*Rhodanthe corymbiflora*), along with the herbaceous twiner Desert Bindweed (*Convolvulus clementii*) and the aquatic fern Nardoo (*Marsilea drummondii*). It is likely that many additional forb species would be detected within this zone in spring.

- PCT 45_Slashed

  A grassland showing evidence of recent modification by slashing. While similar in species composition to 45_Remnant, native cover was markedly lower (typically <50%) and weed cover greater (typically >20%). Plains Grass, though still common, was less pronounced in these areas, with a greater proportion of overall coverage accounted for by Windmill Grass (*Chloris truncata*) and Queensland Blue Grass (*Dichanthium sericeum* subsp. *sericeum*). The shrub Black Rolypoly (*Sclerolaena muricata*) was present, though typically as slashed regrowth, and Buckbush (*Salsola australis*) was recorded in places, including along gravel road verges. This zone possessed a greater diversity of forbs than 45_Remnant; however, these forbs were mainly opportunistic colonisers not particular to any PCT, including Star Cudweed (*Euchiton sphaericus*), Jersey Cudweed (*Pseudognaphalium luteoalbum*), and Blue Crowsfoot (*Erodium crinitum*). The Garland Lily (*Calostemma purpureum*) was recorded in this zone but was not detected in 45_Remnant.

- PCT 45_Planting

  A grassland or artificial woodland, in which the zone 45_Remnant has been modified by the addition of planted canopy trees. These trees include both locally native species – chiefly River Red Gum (*Eucalyptus camaldulensis*) – and species not known to occur naturally in NSW, including a species resembling Gimlet (designated *Eucalyptus* sp. aff. *salubris*), though plant material necessary for identification of these non-indigenous species was not present. The shrub layer and understorey were otherwise similar 45_Remnant, though slightly sparser due to the presence of planted trees.

The TG BDAR also identified some non-native vegetation/gravel/bare ground areas, which represent the highly modified/ impacted areas within the TransGrid Substation land that have previously been used for carparking/ hardstand areas. These areas have been covered with gravel or similar material to the extent (and with the intent) that vegetation has not been able to regrow in those areas. In discussions with TransGrid it is known the TG DP Sub is subject to regular and routine maintenance activities to meet the safety and land management requirements relating to asset management of a major electrical substation and infrastructure. Processes employed by maintenance contractors include slashing and mowing the grassed areas at a frequency ensuring grass length is kept low. Some of the areas impacted by Stage 2b of the Development are non-native vegetation, including the proposed Substation Compound Area which is entirely on a non-native vegetation/gravel/bare ground area. Whilst the Stage 2b works has attempted to maximise the use of such non-native vegetation/gravel/bare ground areas, there will be impacts to native vegetation, albeit fairly minimal area in total. A description of the non-native vegetation zone is provided below:

- Non-native

  Designation of vegetation as non-native was reserved for highly modified areas surrounding the margins of the TransGrid substation and an active gravel parking area in the south of the subject land. In the former case, these marginal areas were dominated by Wild Oat (*Avena fatua*) and Perennial Ryegrass (*Lolium perenne*), often to the exclusion of all other species. In the latter case, the site is actively used for vehicle parking and only isolated plants were found to persist. The most common species in this area was the High-threat Exotic plant Khaki Weed (*Alternanthera pungens*). These areas were unsuitable for BAM plots, due either to the extremely small area of the zone or, in the case of the carpark, due to the presence of moving vehicles. Photographs of these areas are included in the TG BDAR in **Appendix B.**

According to the TG BDAR, an additional area of 0.92ha of native vegetation (0.88 of PCT 45 and 0.04ha of PCT 26) will be directly impacted by Stage 2b works. Whilst the areas of impact are small, they represent an increase in the native vegetation areas that will be impacted by the BESS Stage of the Development, specifically Stage 2b of the Development. Therefore, Edify seeks approval for the additional biodiversity impact resulting from the total loss of habitat in the direct impact areas associated with Stage 2b of the Development.

The DP BAR mapped one record of a Grey-crowned Babbler (listed as Vulnerable under the NSW TSC Act) in the vicinity of Lot 1 DP1249830 as part of the EIS's Biodiversity Assessment. This threatened fauna species was found in the vegetation patch immediately to the west of the BESS site, in PCT 16, described as *Black Box grassy open woodland wetland of rarely flooded depressions in South Western NSW, in moderate to good – moderate condition*. PCT 16 is not listed as an Endangered Ecological Community under the NSW BC Act or the Commonwealth EPBC Act. This PCT and any associated fauna species will be avoided, with the development area for the location of the BESS (in Lot 1 DP1249830) not encroaching on the vegetation. The work areas associated with Stage 2b, being in Lot 2 DP628785, are even further removed from the recorded site of the Grey-crowned Babbler and the PCT 16 vegetation patch.

Due to the timing of the field survey completed for the TG BDAR, and inability to complete targeted seasonal surveys, a number of ecosystem credit species and species credits species were included as assumed present unless one or more constraints indicated assumed absence. Refer to the TG BDAR in **Appendix B** for justification indicating the reason for excluding particular species. A summary of the credit species and the assumed presence/absence is provided in the tables below.

Table 5 Ecosystem Credit Species from TG BDAR (Appendix B) for Stage 2b of the Development

Scientific Name	Common Name	Presence
Anseranas semipalmata	Magpie Goose	Assumed Present
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Assumed Present
Certhionyx variegatus	Pied Honeyeater	Assumed Present
Chalinolobus picatus	Little Pied Bat	Assumed Present
Circus assimilis	Spotted Harrier	Assumed Present
Daphoenositta chrysoptera	Varied Sittella	Assumed Present
Epthianura albifrons	White-fronted Chat	Assumed Present
Falco hypoleucos	Grey Falcon	Assumed Present
Falco subniger	Black Falcon	Assumed Present
Grus rubicunda	Brolga	Assumed Present
Hieraaetus morphnoides	Little Eagle (foraging)	Assumed Present
Hirundapus caudacutus	White-throated Needletail	Assumed Present
Lophochroa leadbeateri	Major Mitchell's Cockatoo (foraging)	Assumed Present
Lophoictinia isura	Square-tailed Kite	Assumed Present
Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Assumed Present
Petroica boodang	Scarlet Robin	Assumed Present
Polytelis swainsonii	Superb Parrot (foraging)	Assumed Present
Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Assumed Present
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Assumed Present
Stagonopleura guttata	Diamond Firetail	Assumed Present

Scientific Name	Common Name	Presence
Tyto novaehollandiae	Masked Owl (foraging)	Assumed Present
Grantiella picta	Painted Honeyeater	Absent (constraint)
Haliaeetus leucogaster	White-bellied Sea-Eagle (foraging)	Absent (constraint)

Table 6 Species Credit Species from TG BDAR (Appendix B) for Stage 2b of the Development

Scientific Name	Common Name	Species presence
Ardeotis australis	Australian Bustard	Assumed Present
Austrostipa wakoolica	A spear-grass	Assumed Present
Brachyscome muelleroides	Claypan Daisy	Assumed Present
Brachyscome papillosa	Mossgiel Daisy	Assumed Present
Convolvulus tedmoorei	Bindweed	Absent Surveyed (0.52 ha) Assumed Present (0.40 ha)
Lepidium monoplocoides	Winged Peppercress	Assumed Present
Leptorhynchos orientalis	Lanky Buttons	Assumed Present
Lophochroa leadbeateri	Major Mitchell's Cockatoo (breeding)	Assumed Present
Phascolarctos cinereus	Koala (breeding)	Assumed Present
Pilularia novae-hollandiae	Austral Pillwort	Assumed Present
Swainsona murrayana	Slender Darling Pea	Assumed Present
Swainsona sericea	Silky Swainson-pea	Assumed Present
Burhinus grallarius	Bush Stone-curlew	Absent (constraint)
Haliaeetus leucogaster	White-bellied Sea-Eagle (breeding)	Absent (constraint)
Hieraaetus morphnoides	Little Eagle (breeding)	Absent (constraint)
Lophoictinia isura	Square-tailed Kite (breeding)	Absent (constraint)
Maireana cheelii	Chariot Wheels	Absent (constraint)
Polytelis swainsonii	Superb Parrot (breeding)	Absent (constraint)
Sclerolaena napiformis	Turnip Copperburr	Absent (constraint)
Swainsona plagiotropis	Red Darling Pea	Absent (constraint)
Tyto novaehollandiae	Masked Owl (breeding)	Absent (constraint)

A total of 28 Ecosystem Credits and 285 Species Credits are required for the proposal. Edify intends to purchase or retire the necessary credits on the open market or, if not available, will offset credits through a direct payment into the Biodiversity Conservation Fund.

In summary, the Modification will increase the biodiversity impact of the overall development and will result in an increase to the biodiversity offset credit calculations previously performed under the Development Consent. The minor updates to the relevant project elements have been summarised in **Table 7** below.

Table 7 Proposed modification resulting from biodiversity impact areas for Stage 2b of the Development

Element	Original project (including Mod-1)	Modified project (Mod-2)
Project area		
Land clearance	709.29ha	710.21ha
Excavation depth	Trenching with burial depths typically between 0.3m and 1.2m	Cable trenching to depth of up to 1m
Native vegetation clearance	709.29ha (direct and indirect impact areas)	710.21ha (direct and indirect impact areas) Increase in biodiversity impact area of 0.92ha of additional native vegetation clearing. This results in an additional offset liability of 28 Ecosystem Credits for PCTs, ecological communities and threatened species habitat; and 285 of Species Credits for threatened species.
Physical layout and design		
Gross floor area	709.29ha	710.42ha Increase of 1.13ha area, comprising 0.92ha of native vegetation and 0.21ha of non-native vegetation/gravel/bare ground for cable/trenching areas and construction compound, laydowns and stockpiles areas
Site access	Site access from Donald Ross Drive	No Change. Site access from Donald Ross Drive
Project sequencing		
	No staging specified	Staging approved: Stage 1 – Construction and operation of the Solar Farm Stage 2 – BESS construction • Stage 2a – Site Preparation for the BESS • Stage 2b – BESS battery components and connections to the TransGrid Substation Stage 3 – Operations Stage 4 – Decommissioning

6.2.2 Aboriginal Heritage

As part of the assessment conducted for the existing Development Consent, an Aboriginal cultural heritage assessment report (**CHAR**) was prepared for the proposed development area. The CHAR was prepared in accordance with the Secretary's Environmental Assessment Requirement, Office of Environment and Heritage (**OEH**) *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* and OEH *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* and accompanied the EIS to support the application for Development Consent.

The CHAR identified ten Aboriginal archaeological sites within the study area, as shown in **Figure 6** below.

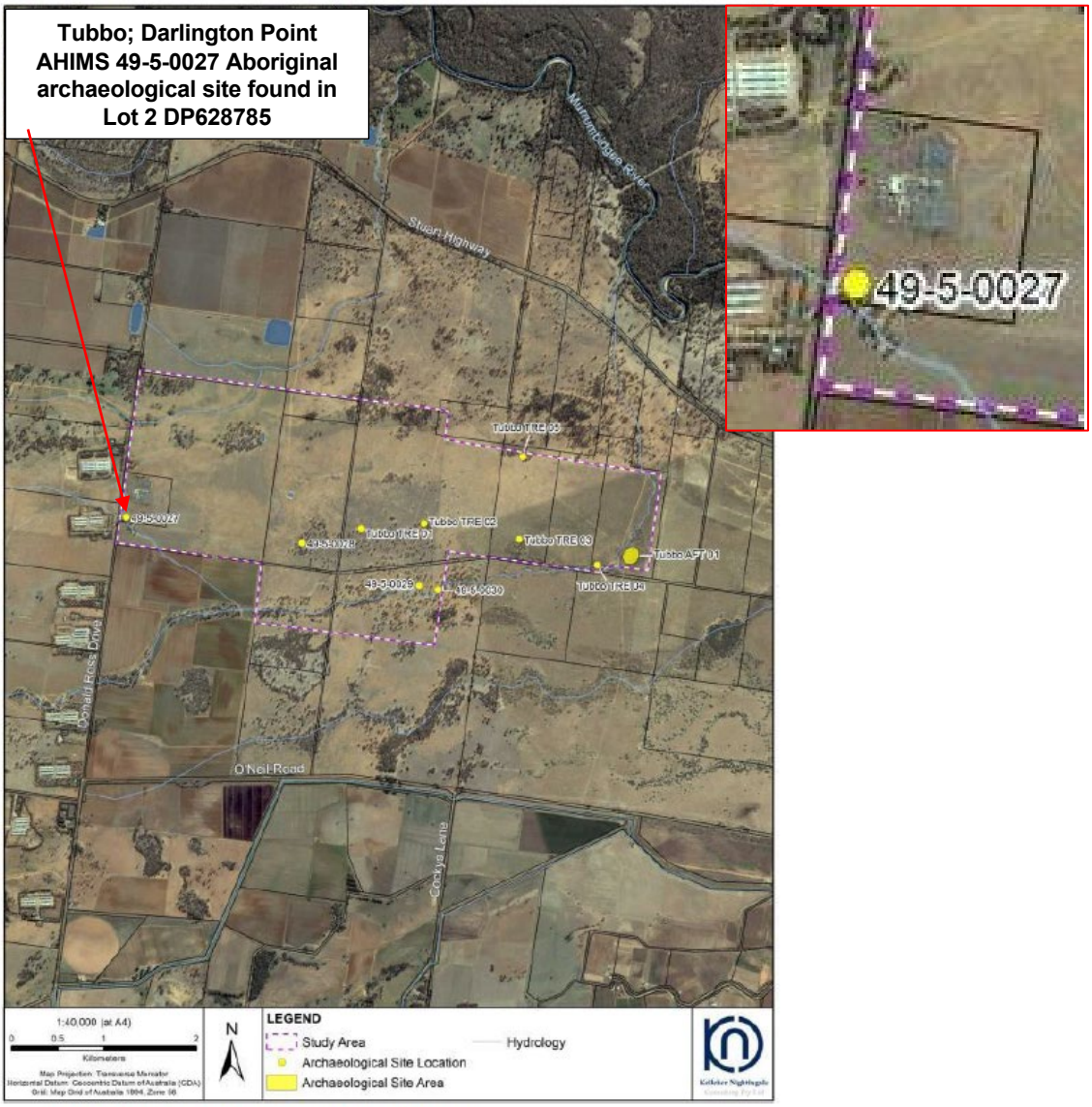

Figure 4. Identified Aboriginal archaeological sites within the study area

Figure 6 Identified Aboriginal archaeological sites within the Development Consent study area, noting site 49-5-0027 in TG Darlington Point Substation

One of the sites, *Tubbo; Darlington Point AHIMS ID 49-5-002 Modified tree (Carved or Scarred)* is located within Lot 2 DP628785, in the south-western corner of the TransGrid Substation land. The CHAR describes the site as follows:

Site Name: Tubbo; Darlington Point

AHIMS Number: 49-5-0027

Site 49-5-0027 was a culturally modified black box tree located within a drainage depression. The site was located within a clump of black box trees in the south western corner of Lot 2 DP628785 (formerly Portion 72) approximately 100 metres north east of the south west corner of the paddock. The site is situated 80 metres east of Donald Ross Drive and 3.6 kilometres south of the intersection of the Sturt Highway and Donald Ross Drive. A single bark removal scar was identified on the

eastern site of the tree that was approximately 150 centimetres long and 80 centimetres wide with regrowth measuring 10 centimetres.

The CHAR assessed Site 49-5-0027 as having 'High' cultural significance, because culturally modified trees are of high cultural value and provide intrinsic connection to the past.

The proposed cable impact areas and temporary construction areas for Stage 2b are located approximately 303m to the north of Aboriginal archaeological site 49-5-0027, as shown in **Figure 7** below. The nearest construction area (proposed Substation Compound Area) will be flagged/fenced around the perimeter and along the southern extent of the work area to ensure no movement is allowable beyond that edge of works. Therefore, the Modification will not result in any Aboriginal heritage impact.

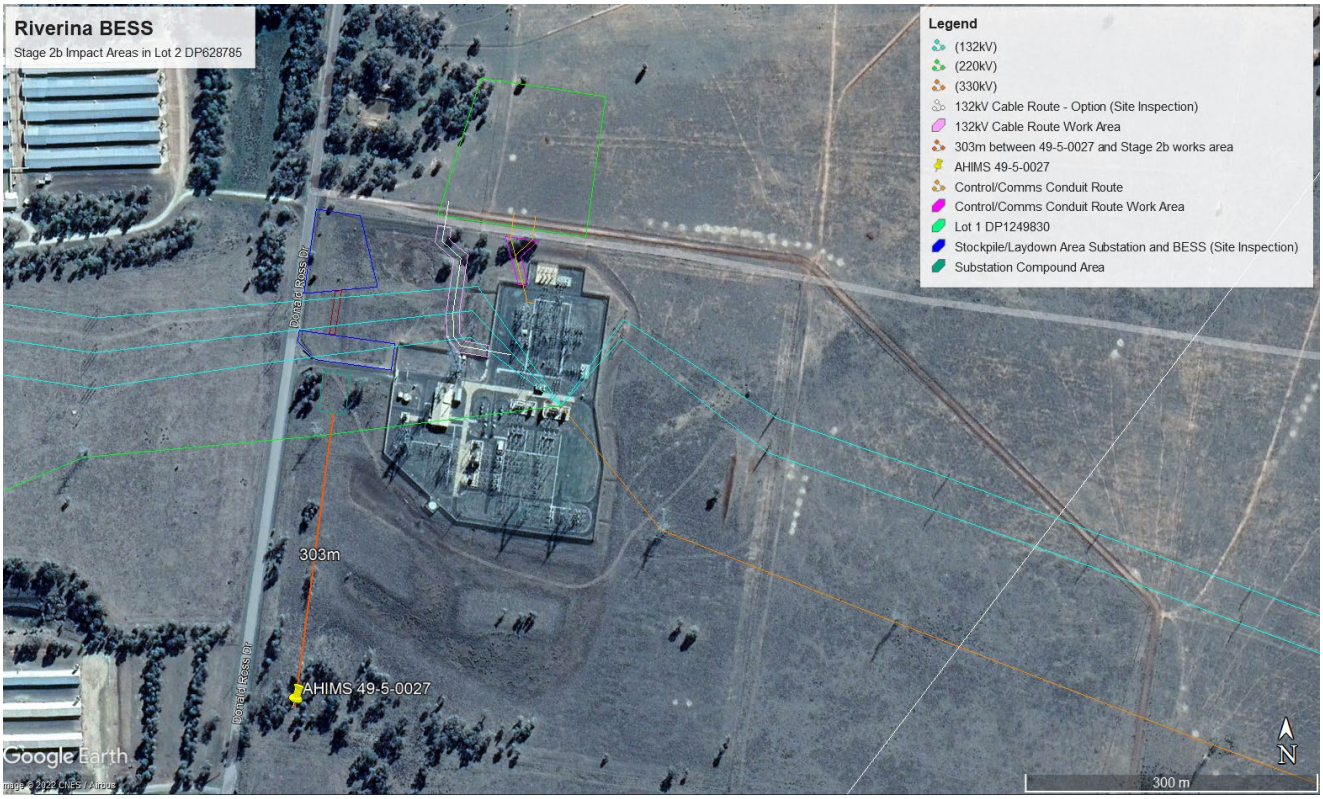

Figure 7 Identified Aboriginal archaeological site: Tubbo; Darlington AHIMS 49-5-0027 within the TransGrid Darlington Point Substation, Lot 2 DP628785 – noting the distance of 303m between 49-5-0027 and nearest construction disturbance area

7 Justification of the Modified Project

This Modification Application outlines the Proponent's proposed Modification for the development of Stage 2b of the approved Development (SSD 8392), which involves the delivery of the battery packs/units, the connections from the BESS to the TransGrid Darlington Point Substation (TG DP Sub), and the temporary construction areas in the TG DP Sub in Lot 2 DP628785. Additionally, it is necessary to further subdivide Lot 1 DP1249830, to create a new lot to house the Riverina BESS Substation and permit ownership of the electrical substation by the incumbent Transmission Network Service Provider (TNSP). The Modification to the Development Consent proposed in this report is required to deliver an efficient, constructable and commercially viable battery system and handover of the electrical substation to the TNSP, with minimal environmental impacts.

This Modification Application (SSD-8392-MOD-2) demonstrates there will be a minor increase in biodiversity impact resulting in the total additional loss of 0.92ha of native vegetation associated with the temporary construction facilities and the connection cable routes/trenches. The BAM calculation has been completed and an offset liability of 28 Ecosystem Credits for PCTs, ecological communities and threatened species habitat; and 285 of Species Credits for threatened species will be retired upon completion of the BESS construction. A new Biodiversity Management Plan (BMP) will be required for Stage 2b of the Development (the subject of this Modification). The BMP will incorporate Stage 2a of the Development to provide a separate BMP for the BESS stage of the Development. This will be delivered through the Post Approvals processes, as per all the other strategies, plans, or programs relating to the BESS stage of the Development.

All other environmental impacts will remain equivalent to that assessed for the original DA and SSD-8392-MOD-1. This outcome, along with the proposed retirement of the calculated biodiversity offset credits, indicates the modification is justifiable and able to be approved.

8 References

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