

Surat Gas Project (SGP) North Solar Farm

Application Number: 02589

Commencement Date:
11/09/2024

Status: Locked

1. About the project

1.1 Project details

1.1.1 Project title *

Surat Gas Project (SGP) North Solar Farm

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

Solar Farm

1.1.4 Estimated start date *

03/08/2026

1.1.4 Estimated end date *

31/03/2048

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Project description and proposed actions

Arrow CSG (Australia) Pty Ltd (Arrow CSG) is proposing the SGP North Solar Farm (the Project) as the development of a 17MWp (mega-Watt peak) solar farm within a 62-hectare (ha) area (the Project site) located on Lot Plan 17AU199 on Petroleum Lease 491 in the northern Surat basin in Queensland (refer to

Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.1, Figure 1.1 (page 6) and Att B-SGP North Solar Farm Location map). The Project is the referred action and is an initiative to contribute to a reduction of Arrow Energy's greenhouse gas emissions (GHG).

The Project will connect to a hybrid power facility located at a nearby Field Compression Facility (FCS) via a 11-22kV transmission line (approx. 500m located within the Project site with overhead and underground options considered). The FCS and the section of the transmission line outside of the Project site will be located within Arrow CSG's SGP North development, subject to a separate EPBC approval (EPBC 2010/5344) (see section 1.2.4), excluded from the Project scope and within this referral. The Project will not be connected to the electricity grid.

The Project comprises the construction and installation of:

- Approx 30,000 individual solar panels on mounting systems
- 4 modular power conversion station container units enclosing inverters
- 11-22kV high voltage (HV) transmission line
- Cabling to connect the solar arrays
- Meteorological stations
- Site access, gate, two laydown areas, carpark, water storage tank, and perimeter fencing

Project proponent and purpose

Arrow CSG will contract a power supply entity to deliver, own, and operate the facility. The power generated by the Project will be provided solely to Arrow CSG, or related entity, to provide a renewable energy for the approved SGP North Development.

The 17 MW generation solar farm will complement a separate hybrid power station located outside of the Project site, an 8MW/MWh battery energy storage system (BESS) and a 24.5MW gas generator. The implementation and operation of the Project will enable the reduction of GHG emissions by providing a renewable energy source for SGP North and is a key initiative to support the Arrow CSG's net zero targets. The hybrid power supply alternative provides a low GHG emissions intensity with 41% lower emissions intensity than the current electricity grid and 23% less than the prescribed emissions intensity for electricity generation by the Australian Government's Safeguard Mechanism.

Project site selection and size

- The preferred location for development of the Project was selected based on its proximity to the FCS, in an area entirely mapped as Category X (i.e., non-remnant, or vegetation that is exempt from requirements under Queensland's *Vegetation Management Act 1999*).
- The Project size maximum potential disturbance footprint is 62ha (i.e. the Project site). The area to be utilised for the solar panels will likely be less, with a minimum footprint of 45ha. The exact footprint can be confirmed once Arrow CSG onboards an independent contractor to execute the required scope of works.
- Arrow CSG has identified the maximum and minimum project footprint based on a target of 20% Renewable Energy Penetration, defined as the total fraction of power provided through renewable sources. The proposed 17MW production in conjunction with a BESS and the use of natural gas achieves the 20% requirement whilst requiring less than 62ha of land clearing.

Land tenure arrangements

- Project activities will occur on Lot Plan 17AU199, land 100% owned by a related body corporate of Arrow CSG, Arrow (Tipton Two) Pty Ltd (Arrow Tipton Two), which are body corporates of Arrow Energy Holdings Pty Ltd (Arrow Energy)
- Lot Plan 17AU199 is a land parcel purchased by Arrow Tipton Two in 2012. The subject lot has a total area of approximately 491ha (refer to Figure 1.1 of **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.1, Figure 1.1 (page 6)**) and is predominantly

flat, sloping very gently towards Bottle Tree Creek to the southeast, and supports a mix of remnant and regrowth vegetation

- The property is bisected by two gas pipeline easements, Petroleum Pipeline (PPL) PPL153 and PPL163, with a cleared width of approximately 100m. The Project is proposed to be developed on the western side of these easements (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.1, Figure 1.1 (page 6)**)

Key activities to deliver the proposed action

Pre-construction

- Conduct detailed design of the Project components
- Procurement of infrastructure, i.e., mobilisation of solar farm components e.g., panels and other plant and equipment
- Finalise footprint minimisation activities to confirm the pre-final project footprint
- Establish work zones within the Project site

Pre-Clearing

- Pre-clearance fauna/vegetation field surveys
- Site validation assessment ('walkover'), and confirmation of location, boundaries, and extent of Threatened Ecological Communities (TECs), Environmentally Sensitive Areas (ESAs), Regional Ecosystems (REs), watercourses, and wetlands
- Preparation of a Site validation report, including GIS mapping and ecological constraints
- Confirmation of a habitat quality assessment and calculation of environmental offsets where applicable
- Further minimisation activities from detailed design process

Commencement of proposed action

Clearing and site preparation

- Removal of existing vegetation and topsoil where applicable, and site preparation
- Construction of access road, internal site roads, and carpark
- Earthworks to level site to a stable foundation
- Pre-drilling for pile installation
- Backfilling as required
- Management of water flow and flood prevention
- Implementation of erosion and sediment control measures

Construction and infrastructure installation

- Installation of support structures on the installed piles (solar panel frames, cable trays, etc.)
- Installation of solar panels, including inverters, transformers, and cabling
- Installation of the 11-22kV transmission cable within a trench, and backfilling
- Installation of a 100kL water storage tank for maintenance activities
- Termination cabling across the site
- Reinstatement and rehabilitation of areas not required for ongoing use

Operation and ongoing maintenance

- During operation, the 17MW solar farm will provide renewable energy directly to the FCS, reducing the facility's reliance on non-renewable energy sources and contributing to overall emissions reduction.
- Maintenance activities will include:
 - Electrical maintenance
 - Cleaning of solar panels
 - Grass cutting and weed control

Decommissioning, remediation, and land rehabilitation

- Following completion of the Project activities (i.e., after operational life), infrastructure will be decommissioned and removed prior to rehabilitation works.

Additional developments as part of the proposed action

- Additional developments include the construction of the access track and access gate to the southwest of the Project site.

Potential environmental impacts

The Project site is currently grazed by cattle with much of the area significantly impacted by bushfires in 2022 with reduced vegetation quality compared to large tracts of remnant vegetation outside the Project footprint. This location is also separated from adjoining remnant vegetation areas by an approximately 100m wide gas pipeline easement to the east and by cleared tracks and fence lines to the west reducing the patch size and fragmenting it from surrounding areas (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.1, Figure 1.1 (page 6)**).

- It is estimated that the potential environmental impacts to land due to clearing of **potential** koala habitat due to the Project is a total of 62ha (refer to section 4.1.4 and **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), sections 6.2.2, 6.2.3, 6.2.4 (pages 45-53), Figure 6.2 (page 49) and Figure 6.2b (page 50), and section 7, page 65**)
- **Other Potential** environmental impacts can include:
 - Unauthorised land use and disturbance during execution - e.g., impacts to biodiversity and land degradation
 - Soil erosion and sediment generation, loss of topsoil, siltation of watercourses, mudslides and flooding
 - Dust emissions - mainly during construction activities
 - Uncontrolled weed growth
- Minimisation and avoidance of environmental impacts and other management strategies will be conducted to avoid, minimise, or mitigate environmental harm associated with land disturbance activities. To reduce the Project footprint, Arrow Energy applied the following criteria:
 - The Project initially contemplated an area of 70.38ha to the north of the current Project footprint (refer to Section 2.1) which had incorporated remnant vegetation at the north and intersected narrow bands of remnant vegetation to the south and east. By decreasing the Renewable Penetration Percentage, the number of panels was reduced from 43,000 to 30,000 and the Project footprint was refined to ensure that all remnant vegetation areas and associated habitat were avoided, reducing it to 62ha, with infrastructure to be located entirely in existing cleared areas and regrowth vegetation
 - The reduction of the Project site from 70.38ha to 62ha (8.3ha) reduced the need to clear areas of remnant habitat for Matters of National Environmental Significant (MNES) species within the Project site (refer to **Att A-SGP North Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.3.2, page 8**)
- Other management strategies to minimise environmental impact consider, but are not limited to:
 - Soil and topsoil management
 - Erosion and sediment control measures to preserve soil quality and protect surrounding ecosystems
 - Stormwater management and drainage plans to manage water flow and prevent flooding
 - Dust control
 - Regular cleaning of solar panels with 'trucked-in' water
 - Weeds control and management
 - Rehabilitation of the Project site to its original state or to an agreed-upon condition

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

EPBC Number	Project Title
2010/5344	Expansion Of Coal Seam Gas Operations

1.2.5 Provide information about the staged development (or relevant larger project).

The Project (i.e., the Surat Gas Project North (SGP) Solar Farm) is a component of Arrow Energy's broader Surat Gas Project North. As part of this initiative, Arrow Energy is constructing a Field Compression Station under its existing EPBC approval (EPBC 2010/5344) to receive, process, and transport gas from the SGP North proposed gas fields downstream to a gas sales point. The Project is proposed to be developed concurrently with the FCS and will play a key role in enhancing this facility's sustainability and efficiency by offsetting the power usage required at the power plant and reducing GHG impacts.

Initially, the FCS will be powered by gas generators and a Battery Energy Storage System (BESS) to ensure a stable and reliable energy supply during its early operations. Once the Project comes online, it will provide a notable alternative portion of the FCS's energy needs, thereby reducing the reliance on gas generators and minimising the burning of fossil fuels. This transition to solar power will contribute to lower greenhouse gas (GHG) emissions, aligning with Arrow Energy's commitment to sustainability.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Australian Federal Government legislation and guidelines

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) – This legislation is applicable if a proposed development is likely to have a significant impact on a protected matter, or MNES, under the EPBC Act, in which case it must be referred to the Australian Federal Government for assessment. This legislation is administered by the Department of Climate Change, Energy, the Environment, and Water (DCCEEW).

- Arrow Energy has an existing approval under the EPBC Act (refer to Section 1.3.2.17 of this referral form). However, because the Project is a discrete commercial component of the broader SGP for which the approval is authorised, Arrow Energy has decided to seek a separate approval for it. The Significant Impact Assessment report provided in **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6, pages 39-64**, outlines those MNES which have

potential to occur on the Project site and surrounding areas and assesses the potential for significant impacts from the Project on these MNES. Further details are also provided in Section 4 of this referral form.

- It is important to note that the *Phascolarctos cinereus* (koala) specie was uplisted to 'endangered' under the EPBC Act on 12 February 2022, and that the EPBC Act's revised referral guidance states it is the expectation of the DCCEEW that any proposed project likely to impact the koala and/or its habitat be referred to the Australian Federal Government for assessment.

Significant Impact Guidelines 1.1: Matters of National Environmental Significance – This guideline provides the detailed criteria used to determine whether a referral may be required, and if the proposed action (i.e., the Project, the Surat Gas Project North Solar Farm) may have a significant impact on MNES. These guidelines were applied to the impact assessments undertaken for threatened ecological communities and listed a migratory species known to occur or considered likely to occur within the Project site (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 2.1.2, page 11**), to determine whether the Project is likely to have impact on MNES.

Significant Impact Guidelines 1.3: Coal seam gas and large coal mining developments – impacts on water resources – This guideline identifies water resources as being a MNES under the EPBC Act and requires that actions which involve a coal seam gas (CSG) development have approval under the EPBC Act if the action has, will have, or is likely to have a significant impact on a water resource. Whilst the potential application of this guideline is worth mentioning as the Project is associated with the SGP North CSG development, it is important to note that the Project does not trigger a MNES water resource assessment as it is not integral to the CSG extraction.

Queensland State legislation

Environmental Protection Act 1994 (EP Act) - Environmental Authority (EA) EA001399 granted and effective as of 1 October 2021) – This EA is the primary Queensland State approval under the State's legislative framework, applicable to the SGP North. The hybrid power facility and the transmission line (refer to Section 1.2.1 of this referral form) will be developed under the conditions as set out in EA0001399, however, the Project is being developed separately to the SGP North, and it's intended to be operated by a third-party provider. As such, Arrow CSG is seeking a development approval for the Project under the State's *Planning Act 2016*.

Planning Act 2016 – Arrow CSG is seeking a development approval under the Western Downs Regional Council (WDRC) Regional Planning framework, or planning scheme, to be achieved via a Material Change of Use (MCU) application for a renewable energy facility.

Vegetation Management Act 1999 (VM Act) – This legislation aims to regulate:

- the clearing of native vegetation to conserve remnant vegetation in declared areas and ensure the clearing does not cause land degradation;
- the prevention of loss of biodiversity and maintain ecological processes;
- the management of the effects from environmental effects of clearing;
- the reduction of greenhouse gas emissions; and
- the sustainable use of land.

Queensland's vegetation communities, or Regional Ecosystems (REs) are mapped (i.e., categorised) and classified within three distinctive classes under the VM Act, (i.e., Endangered RE, Of concern RE, and Of least concern RE).

The Project site is classified as Category X under the VM Act. Clearing of vegetation in areas mapped as Category X is exempt under the VM Act. As such, an approval for the clearing of vegetation at the Project site under the VM Act is not required. Further details are provided in **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 2.2.2, page 12**.

Nature Conservation Act 1992 (NC Act) – This legislation provides the basis for the conservation of nature through the dedication, declaration, and management of protected areas, and the protection of native wildlife and habitat. Restrictions on the taking or harm to threatened, special least concern and least concern wildlife under the NC Act apply separately and in addition to any conditions in the overarching EA and EPBC approvals.

Biosecurity Act 2014 – This legislation provides a legislative framework to manage pest flora and fauna species and diseases, and environmental contaminants, and to address the impact they have on the economy, environment, agriculture, tourism industries, and the society. It prohibits or restricts the introduction and spread of declared plants and animal pests species within Queensland. All individuals and organisations have a General Biosecurity Obligation (GBO) to manage biosecurity risks that are under their control and that they should reasonably know about.

Environmental Offsets Act 2014 (EO Act) - The main purpose of the EO Act is to counterbalance the significant residual impacts of particular activities on prescribed environmental matters through the use of environmental offsets, by:

- (a) establishing a framework for environmental offsets;
- (b) recognising the level of protection given to prescribed environmental matters under other legislation;
- (c) providing for national, State, and local matters of environmental significance to be prescribed environmental matters for the purpose of this act; and
- (d) coordinating the implementation of the framework in conjunction with other legislation.

Environmental Offsets Regulation 2014 (EO Reg) - This regulation provides details of the prescribed activities regulated under the existing legislation and prescribed environmental matters to which the EO Act applies.

Water Act 2000 - The Project site is located in an area that is governed by the Water Plan (Condamine and Balonne) 2019 (QLD Government, 2019). This plan dictates water sharing, extraction, diversion, and all associated details, as set out in the Water Act 2000.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Public consultation has been conducted under the Queensland State *Environmental Protection Act 1994* (EP Act) for the broader SGP North development as part of Arrow CSG (Australia) Pty Ltd.'s (Arrow CSG) request to amend Environmental Authority (EA) EA0001399 which is applicable to the SGP North development. The SGP North Solar Farm Project (the Project) forms part of this EA. Arrow CSG will be applying for a Development Approval under the Queensland Planning Framework and will be consulting locally during this process.

Arrow CSG has widely communicated publicly about its Surat Gas Project (SGP) North. As part of this, Arrow CSG has engaged with key stakeholders about its Solar Farm Project.

Broader consultation about SGP North includes:

- A media announcement on 12 August 2024 with media coverage reaching a potential audience of 4.3 million people (refer to **Att C-SGP North Expansion Media Release (12 Aug 2024)**);
- The publication of a notice in local newspapers (refer to **Att D-SGP North Public Notice (2 Aug 2024)**);
- A letter to landholders in the area (refer to **Att E-Letter to Landholders on Arrow Energy's proposed future development**); and
- Meetings with various stakeholder groups.

Feedback to Arrow CSG in these forums about the solar farm has been limited to questions of general interest only, e.g., to enquire about the purpose of the solar farm, with no concern raised with Arrow CSG.

The SGP North development was published on the local newspaper *Western Downs Today*, from 2 August 2024 to 31 August 2024 (refer to **Att D-SGP North Public Notice (2 Aug 2024)**), as required by the EP Act Section 152.

Where appropriate, Arrow CSG will continue to engage with the community regarding the SGP North Solar Farm project as part of the broader conversations relating to the SGP North development and respond to any stakeholder enquiries about the Project. In addition, Arrow CSG has plans to provide ongoing community updates relevant to stakeholders relating to the SGP North development, which can include the SGP North Solar Farm project when relevant.

For further information on the broader SGP North development, please refer to the response from Arrow CSG to the Department of Science, Environment, and Innovation (DESI)'s request for information (RFI) in relation to its application to amend Environmental Authority EA0001399 as published in Arrow Energy's website and on the DESI's website. Please find links as per below in the attachments section of this referral.

- Arrow Energy's website - link provided: Response to a request for further information (RFI) - Arrow Energy - Surat Gas Project (SGP) North Environmental Authority (EA0001399) amendment application response to a request for further information (RFI); and
- DESI's website - link provided: Current environmental authority application or amendment documents | Environment | Department of Environment, Science and Innovation, Queensland (desi.qld.gov.au).

Indigenous Stakeholders – The current registered Native Title claimants, Iman People #4, were contacted in February 2023 regarding the SGP North Solar Farm Project. Arrow Energy has an established and ongoing relationship with Iman #4 People regarding the care and protection of heritage values. A cultural heritage assessment of the project area was undertaken on 28 February 2023 (refer to **Att F-Cultural Heritage Field Assessment 2021–UNREDACTED** and **Att G-Cultural Heritage Field Assessment 2021–REDACTED**) with four representatives from Iman People #4.

Please note that **Att F-Cultural Heritage Field Assessment 2021–UNREDACTED** is a document that **cannot be made publicly available** as it contains the names and signatures of Iman People and Arrow Energy staff, and the presence or absence of indigenous cultural heritage should not be made public. If any new heritage values are found during construction, there are mechanisms in place to further involve the Iman People to manage any impacts.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint. Alternatively, email us at privacy@awe.gov.au.

☒ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland

Referring party details

Name	Tyson Croll
Job title	Team Lead Regulatory Approvals
Phone	+61730124417
Email	RegApprovals.GovCorro@arrowenergy.com.au
Address	111 Eagle Street, Brisbane, 4000 QLD

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN 054260650

Organisation name ARROW CSG (AUSTRALIA) PTY LTD

Organisation address 4000 QLD

Person proposing to take the action details

Name Matthew Jeffries

Job title Vice President External Affairs, Safety, Sustainability & People

Phone 0730124294

Email matthew.jeffries@arrowenergy.com.au

Address Level 39, 111 Eagle Street, Brisbane 4000 Queensland

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

As per Section 1.3.2 of this referral form, the Person proposing the action (i.e., the Project) is Arrow CSG (Australia) Pty Ltd. (Arrow CSG).

Past or present proceedings:

There have been no Commonwealth or State environmental proceedings brought against Arrow CSG.

Current referred actions:

Arrow Energy, a body corporate of Arrow CSG, currently has two previously referred actions under the EPBC Act with Arrow Energy Pty Ltd. These current referred EPBC approved actions are:

1. Surat Gas Expansion Project (EPBC 2010/5344); and
2. Surat Gas Project Pipelines, Surat Basin, Queensland (EPBC 2018/8223).

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Environmental framework:

The referred action will be undertaken in accordance with Arrow Energy's Health Safety and Environment (HSE) Policy (refer to **Att H-Health Safety Environment (HSE) Policy (Arrow Energy, Rev 6.0, 6 June 2024)**), and HSE framework (**Att I-HSE Standards Compendium (Arrow Energy, Version 5.0, March 2021), pages 39-47**), where applicable and relevant to those aspects of the policy and the framework relating to the environment.

Arrow Energy's HSE Policy (refer to **Att H-Health Safety Environment (HSE) Policy (Arrow Energy, Rev 6.0, 6 June 2024)**) establishes Arrow Energy's commitment to:

- Pursuing the goal of causing no harm to people;
- Protecting the environment;
- Ensuring genuine coexistence with landholders and the communities in which Arrow Energy operates;
- Achieving net-zero Scope 1 and Scope 2 greenhouse gas emissions upstream and power assets by 2050;
- Implementing principles of sustainable development; and
- Ensuring full and effective compliance with regulatory requirements.

Arrow Energy recognises that effective management of HSE is critical to the success of our business; and that each Arrow Energy employee, contractor, and service provider is responsible for actively meeting the HSE Policy and the HSE requirements applicable to their work.

Please find attached:

- Arrow Energy *Health Safety and Environment Policy* (refer to **Att H-Health Safety Environment (HSE) Policy (Arrow Energy, Rev 6.0, 6 June 2024)**); and
- Arrow Energy *HSE Standards Compendium* (refer to **Att I-HSE Standards Compendium (Arrow Energy, Version 5.0, March 2021)**).

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details	
ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	4000 QLD
Proposed designated proponent details	
Name	Matthew Jeffries
Job title	Vice President External Affairs, Safety, Sustainability & People
Phone	0730124294
Email	matthew.jeffries@arrowenergy.com.au
Address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland

1.3.4 Identity: Summary of allocation

☒ **Confirmed Referring party's identity**

The Referring party is the person preparing the information in this referral.

ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland

Representative's name	Tyson Croll
Representative's job title	Team Lead Regulatory Approvals
Phone	+61730124417
Email	RegApprovals.GovCorro@arrowenergy.com.au
Address	111 Eagle Street, Brisbane, 4000 QLD

✔ Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	4000 QLD
Representative's name	Matthew Jeffries
Representative's job title	Vice President External Affairs, Safety, Sustainability & People
Phone	0730124294
Email	matthew.jeffries@arrowenergy.com.au
Address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland

✔ Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

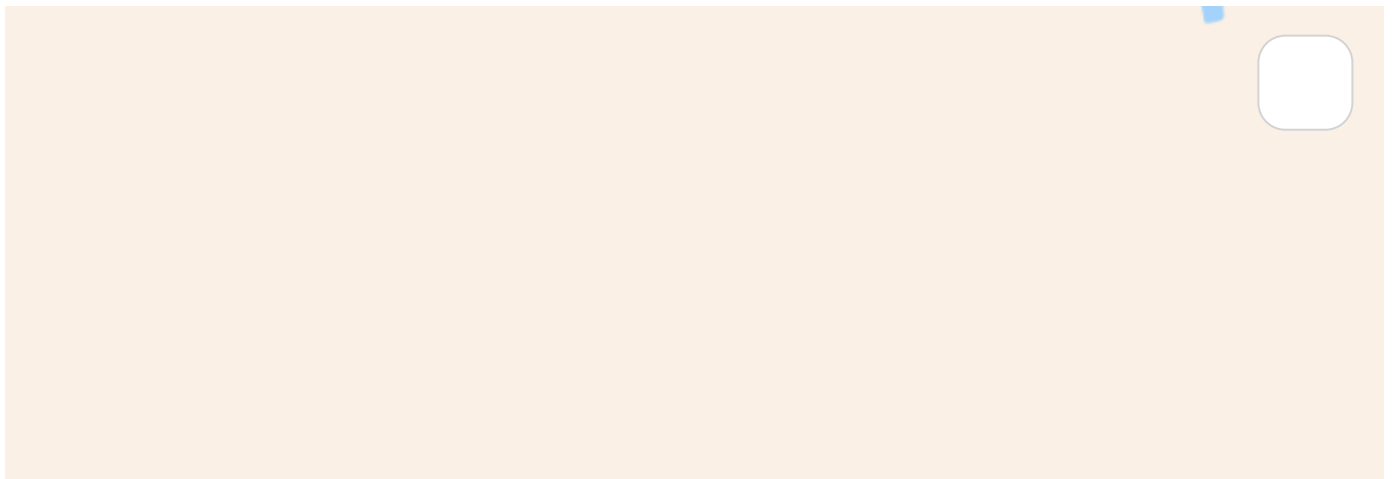
1.4 Payment details: Payment allocation

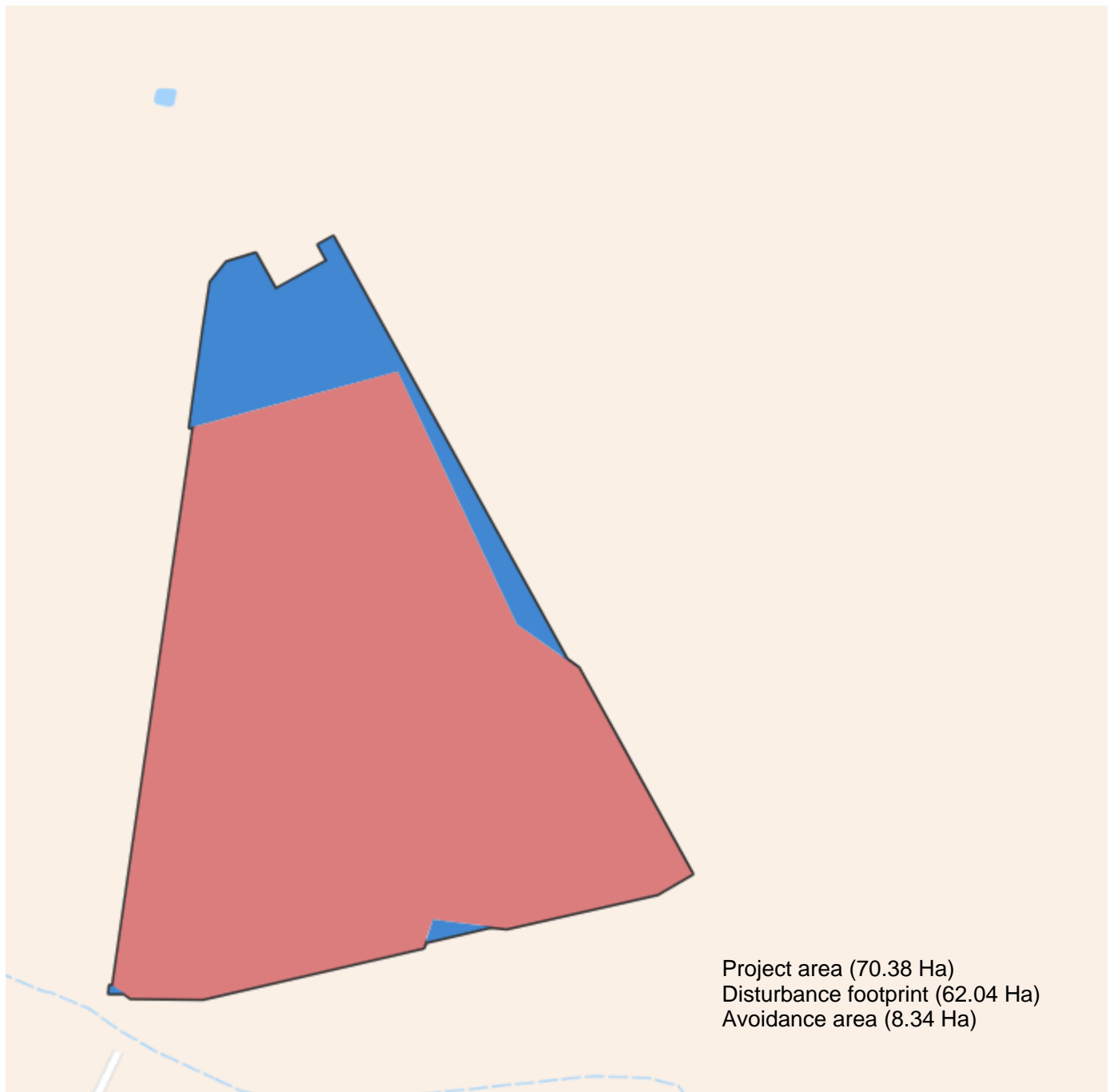
1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint





Maptaskr © 2025 -26.487842, 150.222307

Powered By Esri - Sources: Esri, TomTom, Garmin, F...

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Access track off Retreat Road, Kowguran, Queensland, 4415.

2.2.2 Where is the primary jurisdiction of the proposed action? *

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The proposed action, i.e., the Project, will be located wholly within the boundary of Petroleum Lease (PL) 491, on Lot Plan 17AU199 (refer to **Att B-SGP North Solar Farm Location map**) freehold land.

The area of the proposed action is land privately owned by Arrow (Tipton Two) Pty Ltd, which is, as mentioned in Section 1.2.1, a body corporate of Arrow CSG. Arrow CSG is the person proposing to take the action.

For this referred action, the Project area is the same as the Project footprint, i.e., the Project area is the area that will be directly impacted by the 'proposed action' (i.e., the Project) (e.g., clearing of vegetation).

The Project area, i.e., Project footprint/Project site, is provided in the attachment: **Att B-SGP North Solar Farm Location map**. The Project area includes:

- The area for the solar panels and associated infrastructure;
- The areas for the two laydown yards; and
- The areas for parking and other facilities.

The Project area will include areas of temporary and permanent works. All activities under the referred action will be developed within the Project area footprint (i.e., 62ha). The Project area occurs in one single land, and there are no activities, or any other minor developments outside of the Project area as part of this referred action.

The Project's original spatial original design footprint was 70.38ha, which is provided in section 2.1 of this referral, and the spatial dataset metadata is provided in the following attachment: **Att J- SGP North Solar Original Footprint Metadata**.

The avoidance areas, i.e., the areas of national environmental significance within the Project area/footprint that Arrow CSG has intentionally decided not to clear or disturb during the Project action are provided in the attachment: **Att K-SGP North Solar Farm Avoidance Areas map**. Please also refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.3.2, page 8, Figure 1.3 (page 9)**, *Original Project footprint vs reduced Project footprint*.

The Project's Final footprint spatial dataset is provided in section 2.1 of this referral. As per the Project's final design spatial data, the final footprint is 62.04ha.

The Project's Final footprint spatial dataset metadata is provided in the attachment: **Att L-SGP North Solar Farm Final Footprint Metadata**.

The Project's Avoidance areas spatial dataset is provided in section 2.1 of this referral. The Project's avoidance area is 8.3ha.

The Project's Avoidance areas spatial dataset metadata is provided in the attachment: **Att-M-SGP North Solar Farm Avoidance Areas Metadata**.

The Project does not consider retention areas.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

Description of the Project (SGP North Solar Farm) area - Location, area, size, estimated layout, zoning, access, and condition

- **Location:** The Project area/site is located in Queensland in Petroleum Lease (PL) 491 on Lot Plan Lot Plan 17AU199, on Retreat Road, Kowguran, Queensland. This property is owned by Arrow (Tipton Two) Pty Ltd (Arrow Tipton Two).
- **Project area and site size:** The Project area, or Project site, is 62ha (refer to **Att B-SGP North Solar Farm Location map**).
- **Project Layout:** Please refer to **Att P-Solar Site Layout-REDACTED** which provides an *estimated* diagram of the Project infrastructure and ancillary locations, this is, the location of solar panels and arrays, transformers, laydown areas, parking and other ancillaries, permitter fencing, weather stations, and power line, including power line boundary limit. The 'unredacted' version of this document cannot be provided as it contains the names of external services contracting companies, and due to the tender process still ongoing at the time of the submission of this application.
- **Distance from major towns:** The Project site is located at a distance of approximately 20Km from the township of Miles and 150Km from the township of Dalby, Queensland.
- **Zoning:** The Project area is subject to the Western Downs Regional Council Planning Scheme and is located in a planning zone classified as rural. All adjoining zoning and land use areas surrounding the Project site to the north, south, east, and west are classified as rural. The land to the north, east, and west are privately owned, and the land to the south of the Project area is owned by Arrow Tipton Two, a body corporate of Arrow CSG. For further details regarding the Project area, refer to the Lot Plan 17AU199 Property Report provided in the attachment from the Westerns Downs Regional Council (WDRC): **Att N-WDRC Property Report for Lot Plan 17AU199 (22 Aug 2024)**.
- **Access:** The main access to the Project area is via the existing unsealed Retreat Road from the southwest. A minor access track will be built to connect the Project site with Retreat Road. Transportation to and from the Project site will be through this access track during all stages of the Project, i.e., construction, operation and maintenance, and decommissioning. A potential access to the Project site might be built to the northeast, connecting the Project site with the Right of Way of the pipeline that runs from north to south at the east border of the Project site.
- **Current land use:** The Project site land is not currently being used for future petroleum and gas projects. The Project site is separated from adjoining remnant vegetation areas to the east by an approximately 100m wide gas pipeline easement and by cleared tracks and fence lines to the west (refer to **Att B-SGP North Solar Farm Location map**) which reduces the potential site's size and fragments it from the surrounding areas. There is current cattle grazing agistment agreement.
- **Information on MNES present on site:** The Significant Impact Assessment (SIA) report prepared by experienced professionals from Attexo Consulting (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), page 1**) provides the description of the current condition of the Project area and more specifically of the Project site, including native vegetation where applicable, and the current state of the land of the Project site, i.e., description of the ecological conditions and its level of degradation where applicable. It is worth noting that the Project site was significantly impacted by bushfires in 2022, and as a consequence, due to the significant fire damage, the vegetation quality is reduced when compared to large tracts of remnant vegetation surrounding the site.

3.1.2 Describe any existing or proposed uses for the project area.

- **Existing land use of the Project area and Project site:** The existing use of the Project area/Project site is farming and agricultural (i.e., cattle breeding & fattening).
- **Proposed land use of the Project site:** The Project site's future use is industrial (i.e., will allocate a solar farm and its associated infrastructure as described in Section 1.2 of this referral form).
- **Previous land uses:** The Project area has been subject to a history of clearing and disturbance. It was cleared by 1972 and was maintained cleared until the 1980s. Since then, vegetation has been encroaching on cleared areas in the north and have been maintained as cleared in the south. Refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4, page 26, and Figure 4.1 (page 26)**.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

There are no natural parks or nature reserves, nor outstanding natural features nor unique values located within the Project site.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The Project site, i.e., the SGP North Solar Farm area is predominantly flat, sloping very gently towards Bottle Tree Creek in the southeast (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.1, page 5, and Figure 1.1 (page 6)**), and supports a mix of remnant and regrowth vegetation.

The contours of the facility will follow the natural gradient of the site, i.e., the existing land contours will be primarily maintained across the solar array site. Maintaining existing land contours will support the existing flow paths to be maintained, limiting the potential for erosion exacerbation or impacts downstream. During the design of the earthworks, the gradient of the site will be ensured to not exceed 6%.

The Project will not be developed in a marine area.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

The existing ecological values of the Project site are presented in detail in the SIA report (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4, pages 26-36**). A summary is provided below.

Vegetation

- The Project site is shown as 'Category X', or non-remnant, on the Queensland Department of Resources' Regulated Vegetation Management Map (RVMM).
- During field verification (i.e., ground-truthing), it was found that the Project site was either cleared or had regrowth of eucalypt woodland on Cainozoic sand plains, which corresponds to RE 11.5.1, as per the RVMM, with the areas with regrowth corresponding to previously cleared areas.
- There is a small discrete area of remnant shrubland (RE 11.7.5) dominated by *Melaleuca* species on the western boundary of the Project site. Other species recorded from this area included *Acacia triptera*, *Calytrix tetragona*, *Hakea purpurea*, and *Micromyrtus sessilis*.
- The area immediately to the north of the Project site contains eucalypt woodland of poor quality but is considered to meet thresholds to be considered remnant in accordance with the Queensland Herbarium's Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities Version 6.0 (Neldner, 2022) when compared with Bio Condition Benchmarks for RE 11.5.1 (20m height and 25% canopy cover). This area was excluded from the Project site footprint final design.
- Ground-truthed REs are presented in detail in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), Table 4.1 (page 28)**.

EPBC listed Threatened Ecological Communities (TECs)

- A search of the EPBC listed threatened species and ecological communities using the Protected Matters Search Tool (PMST) as a desktop assessment was completed for a 50Km radius around the Project area on 25 March 2024.
- This search identified six (6) TECs as potentially occurring within the Project area, namely:
 - Brigalow (*Acacia harpophylla* dominant and co-dominant);
 - Coolibah – Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions;
 - Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland;
 - Poplar Box Grassy Woodland on Alluvial Plains;
 - Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions; and
 - Weeping Myall Woodlands TEC.

MNES flora species

- The PMST search (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), Appendix E Desktop Search Results, page 112**) identified nine (9) MNES threatened flora species as potentially occurring within a 10Km radius of the Project area (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.4, page 31**), of which two (2), namely *Calytrix gurulumundensis* and *Homoranthus decumbens*, were initially considered likely to occur based on the presence of a suitable patch of myrtaceous shrubland habitat (RE 11.7.5) on the western boundary of the Project site. This shrubland area is quite distinct from the surrounding eucalypt woodlands and is approximately 2ha in size. During field surveys conducted in July 2023 across the shrubland area of approximately 2ha in size, the absence of the two (2) abovementioned MNES flora species was confirmed. As such, they are considered unlikely to occur on the Project site.
- A full likelihood of occurrence assessment for all threatened flora species identified through the PMST search is provided in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), Appendix C Likelihood of Occurrence, pages 83-110**.

Habitat

- Habitat on the Project site is predominantly characterised by regrowth eucalypt woodlands to open woodlands dominated by Narrow-leaved Ironbark (*Eucalyptus crebra*) with stands of Bull Oak (*Allocasuarina luehmannii*) and White Cypress Pine (*Callitris glaucophylla*).
- Associated microhabitat features include fallen timber, decorticated bark, and very sparse mistletoe. There were very few, if any, trees large enough to support hollows with an average diameter at breast height (dbh) in remnant areas of less than 30cm.
- Habitat types on the Project site based on Ground-Truthed REs (GTREs) include:
 - Regrowth open eucalypt woodlands with grassy understorey mixed stands of *Allocasuarina luehmannii* and *Callitris glaucophylla* (corresponding to regrowth RE 11.5.1). Large parts of this habitat type have been affected to varying degrees by wildfire in December 2022 resulting in a simplified habitat structure at the time of the field assessment in August 2023;
 - A small area in the south-west of the Project site of remnant eucalypt woodland with *Eucalyptus crebra*, *E. decorticans*, *Corymbia trachyphloia*, *E. tenuipes*, *C. watsoniana* and *Callitris glaucophylla* and a distinct low tree to tall shrub layer comprising species including *Lysicarpus angustifolius* or *Acacia* species;
 - Remnant myrtaceous shrubland, which corresponds to RE 11.7.5.
- There is a small creek immediately to the south of the Project site with burnt out canopy in the west (RE 11.5.1) but supporting large trees including *Corymbia citriodora*, *Angophora leiocarpa* and *Eucalyptus exserta* in a rocky gorge further downstream (RE 11.7.4) (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.5, Figure 4.4 (page 32)**). This area borders the southern boundary of the Project site but is not impacted by the Project.

Fauna

- All fauna species compiled from all fauna surveys across the western half of Girrahween Station (i.e., Lot 17AU199 and Lot 16AU38) and additional records sourced from Wildlife Online and Atlas of Living Australia Databases are included in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), Appendix B, pages 76-82**.

MNES Fauna species

- The PMST search for the Project site identified 54 threatened and 12 migratory fauna species as potentially occurring within a 10Km radius of the Project site (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.7, page 33, Table 4.2 (page 34), and Appendix C Likelihood of Occurrence, pages 83-110**), which provides a likelihood of occurrence assessment for all threatened fauna species identified through the PMST search).
- Koala has been included in the assessment due to the presence of 'Locally Important Koala Trees (LIKT)' on the Project site, and due to its classification as *endangered*.

- The following six (6) MNES threatened fauna species as 'known to occur' or 'likely to occur' were identified on the Project site:

1. Mammals

- Corben's Long-eared Bat, *Nyctophilus corbeni* – EPBC Status: Vulnerable
- Koala, *Phascolarctos cinereus* – EPBC Status: Endangered
- Greater Glider, *Petauroides volans volans* – EPBC Status: Endangered

2. Birds

- South-eastern Glossy Black-cockatoo, *Calyptorhynchus lathami lathami* – EPBC Status: Vulnerable
- White-throated Needletail *Hirundapus caudacutus* – EPBC Status: Vulnerable (migratory)
- Squatter Pigeon (southern), *Geophaps scripta scripta* – EPBC Status: Vulnerable

- Although the White-throated Needletail is known to occur, it is predominantly an aerial species and therefore has not been included in the significant impact assessments. Similarly, the Squatter Pigeon (southern) has been assessed as likely to occur but is considered to be a transient within the SGP, on which basis it was also not included in the significant impact assessments.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Presence and condition of vegetation on the Project site

The Project site is located in an area which is entirely mapped as Category X, or non-remnant, on the RVMM and contains predominantly regrowth vegetation that has been subject to historical clearing and disturbance, and bushfires, as mentioned in Section 1.2 and Section 3.1. As a consequence, the vegetation quality is reduced when compared to the surrounding remnant areas.

Due to the majority of the Project site having been subject to historical clearing, vegetation is of poor quality when compared to surrounding remnant areas. However, regrowth and the small discrete area of remnant vegetation on the Project site (remnant shrubland (RE 11.7.5)) does provide some habitat values for diurnal bird species and other local fauna (refer to the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 5.3, page 38**) and Section 3.2.1 of this referral form).

The vegetation within the 62 ha of the Project site is composed of:

- 2.2 ha of remnant vegetation communities, comprising remnant myrtaceous shrubland community (RE 11.7.5), classified as 'Of Least concern' under the VM Act;
- 39.4 ha of regrowth eucalypt woodlands, also classified as 'Of Least concern' (RE 11.5.1); and
- 20.4 ha of non-remnant vegetation, which includes spare and immature regrowth vegetation in some cleared areas.

Pest species

A few weed species were identified on the Project site, despite the long history of cattle access and agricultural use, plus the adjoining linear infrastructure corridors.

While project activities have the potential to increase the abundance of pest flora and facilitate dispersal of these to previously unaffected areas, unrestricted vehicle access throughout the site and surrounding area also poses a risk to the spread of these pest species.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

There are no Commonwealth heritage places within or near the project area.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The Iman People (Iman People #4) undertook a cultural heritage assessment of the project area in February 2023. They did not identify any tangible or intangible Indigenous heritage values. The Iman People, however, still manage the indigenous cultural landscape of this area and its surrounds with Arrow CSG to ensure that impacts to heritage values are minimised.

Attached are the unredacted, i.e., not to be made available for public view, and the redacted version of the cultural heritage assessment conducted in the Project area/site (i.e., the area where the SGP North Solar Farm will be built). Refer to **Att F-Cultural Heritage Field Assessment 2021–UNREDACTED** and **Att G-Cultural Heritage Field Assessment 2021–REDACTED**).

Please note that **Att F-Cultural Heritage Field Assessment 2021–UNREDACTED** is a document that **cannot be made publicly available** as it contains the names and signatures of Iman People and Arrow Energy staff, and the presence or absence of indigenous cultural heritage should not be made public. If any new heritage values are found during construction, there are mechanisms in place to further involve the Iman People to manage any impacts.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The SGP North Solar Farm (the Project) site is located within the Condamine-Balonne River catchment, in the northern area of the Murray-Darling basin (refer to **Att O-Condamine River catchment area** and **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.1, page 27**). The main rivers of the catchment, the Condamine and the Maranoa, rise in elevated country. Two thirds of the catchment is flat floodplain country, with a complex system of rivers and creeks joining and breaking away from the Balonne River. River systems are ephemeral, which means they only flow for brief periods throughout the year. This is due to the semi-arid climate where river flows are driven by the natural drought and flood regime.

The Condamine River is the major drainage system of the southern Queensland area, extending from its headwaters southeast of Warwick to the convergence with Dogwood Creek north of Glenmorgan.

Bottle Tree Creek flows adjacent to the east of the Project site which eventually flows into Dogwood Creek. Runoff from the site, conveyed through Dogwood Creek discharges into the Balonne River, before eventually becoming part of the Darling River.

There are five (5) surface management areas within the Condamine-Balonne River catchment:

- Upper Condamine;
- Condamine and Balonne;
- Lower Balonne;
- Condamine and Balonne tributaries; and
- Gowrie and Oakey creek.

Groundwater in the Condamine-Balonne River catchment area is predominantly found in alluvial aquifers associated with the major rivers and creeks as well as basalt and fractured rock. Basalt and sandstone aquifers exist in the upper and mid catchment, and groundwater also exists in sand beds and gravel layers in the mid to lower catchment. Recharge to the aquifers occurs through rainfall throughout the catchment, flooding in the lower catchment, and lateral flow between the different groundwater systems.

Specific hydrological characteristics that apply to Project site/area include:

- There are no identified drainage lines intersecting with the Project site. However, the unnamed creek to the south of the Project site and Bottle Tree creek (refer to **Att B-SGP North Solar Farm Location map**) have been mapped as having a stream order of 2 and 4, respectively;
- There are no mapped wetlands across the Project site area; and
- There are no identified groundwater dependent ecosystems (GDEs) within the Project site area. The flow path to the south of the Project site has been identified as having a potential (low) presence of terrestrial groundwater dependent ecosystems. It is anticipated that potential impacts to GDEs will be negligible as a result of the development of the Project.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	No	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The Project has no impact to World Heritage protected matters.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Project has no impact to National Heritage protected matters.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
No	No	Banrock Station Wetland Complex
No	No	Narran Lake Nature Reserve
No	No	Riverland
No	No	The Coorong, and Lakes Alexandrina and Albert Wetland

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The Project has no impact to Ramsar wetlands as there are no Ramsar wetlands within the Project area or within the immediate vicinity.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Acacia curranii	Curly-bark Wattle
No	No	Adclarkia cameroni	Brigalow Woodland Snail

Direct impact	Indirect impact	Species	Common name
No	No	Anomalopus mackayi	Five-clawed Worm-skink, Long-legged Worm-skink
No	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Cadellia pentastylis	Ooline
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	Yes	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Calytrix gurulmundensis	
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
No	No	Erythroriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Homopholis belsonii	Belson's Panic
No	No	Homoranthus decumbens	a shrub
No	No	Lathamus discolor	Swift Parrot
No	No	Lepidium monoplacoides	Winged Pepper-cress

Direct impact	Indirect impact	Species	Common name
Yes	Yes	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
Yes	Yes	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Polianthion minutiflorum	
No	No	Rostratula australis	Australian Painted Snipe
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Xerothamnella herbacea	

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
No	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Weeping Myall Woodlands

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Significant impact assessments were carried out against the EPBC Act *Significant Impact Guidelines 1.1* for those fauna MNES that are 'known to occur' or considered 'likely to occur' on the Project site (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 5, pages 37-38, and section 6, pages 39-64**)), before any avoidance or mitigation measure was applied.

Four (4) of these fauna MNES were considered to be impacted by the Project. These are:

- **Corben's Long-eared Bat**, *Nyctophilus corbeni* (EPBC Status is Vulnerable). The Project site contains ironbark woodlands and stands of *Callitris* and Bull Oak (*Allocasuarina leuhmannii*) that are likely to provide foraging habitat and possibly some roosting habitat for this species (refer to **Att A-**

SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.1, pages 39-45, Figure 6.1 (page 41) and Figure 6.1b (page 42)).

- **Koala**, *Phascolarctos cinereus* (EPBC Status is Endangered). The Project site contains eucalypt woodland that is potential foraging and dispersal habitat for Koala (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.2, pages 45-53, Figure 6.2 (page 49) and Figure 6.2b (page 50))**).
- **Greater Glider**, *Petauroides volans volans* (EPBC Status is Endangered). The Project site contains eucalypt woodland that is potential habitat for Greater Glider (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.3, pages 54-59, Figure 6.3 (page 56) and Figure 6.3b (page 57))**); and
- **South-eastern Glossy Black-cockatoo**, *Calyptorhynchus lathami lathami* (EPBC Status is Vulnerable). This species are hollow nesters, utilising large hollows in both living and dead eucalypt trees, and they feed almost exclusively on the seeds of she-oaks (*Allocasuarina* and *Casuarina* species). The habitat on the Project site is predominantly characterised by regrowth eucalypt woodlands to open woodlands dominated by Narrow-leaved Ironbark (*Eucalyptus crebra*) with stands of Bull Oak (*Allocasuarina luehmannii*) (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.4, pages 59-64, Figure 6.4 (page 61) and Figure 6.4b (page 62))**).

Summaries of the assessments of significant impacts for all the four (4) abovementioned species are in the following corresponding references within **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025)**.

- **Corben's Long-eared Bat**, *Nyctophilus corbeni* (EPBC Status is Vulnerable) - **Table 6.1 (page 43)**
- **Koala**, *Phascolarctos cinereus* (EPBC Status is Endangered) - **Table 6.3 (page 51)**
- **Greater Glider**, *Petauroides volans volans* (EPBC Status is Endangered) - **Table 6.4 (page 58)**
- **South-eastern Glossy Black-cockatoo**, *Calyptorhynchus lathami lathami* (EPBC Status is Vulnerable) - **Table 6.5 (page 63)**

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

The results from the significant impact assessments conducted to the four (4) fauna species as identified in Section 4.1.4.2, indicate a **Significant Impact** to the following specie (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.2.4, pages 51-53, Table 6.3 (page 51) and Figure 6.2 (page 49) and Figure 6.2b (page 50), and Section 7, page 65)**).

- **Koala**, *Phascolarctos cinereus* (EPBC Status is Endangered) - It is considered likely that the Project can have a significant impact on habitat for koala due to the presence of Locally Important Koala Trees (LIKT) within the Project site, which is habitat that is used by the species to meet 'essential life cycle requirements' and is considered 'critical to the survival of the species' (e.g., foraging, breeding, social behaviour, and dispersal). This area corresponds to the regrowth RE 11.5.1. with an equivalent of 39.4 ha (refer to Section 3.2.2 of this referral form) that would require to be cleared. The clearing of a total 2.2 ha of remnant vegetation (RE 11.7.5) and 20.4 ha of non-remnant vegetation would also potentially affect koala habitat (i.e., dispersal habitat). It is important to note that although the Project site may contain habitat used to meet essential life cycle requirements as it might contain LIKT which indicates that the Project site may at a minimum provide an 'occasional' foraging resource for koala, the vegetation in the Project site is generally poor-quality regrowth Regional Ecosystem (RE 11.5.1)

which has been heavily impacted by historical clearing and recent fires. In addition, the non-remnant areas and the small discrete area mapped as RE 11.7.5 with an absence of any emergent eucalyptus are dispersal habitat and are not considered essential for life cycle requirements due to their limited extents and because there is good habitat connectivity in the surrounding areas.

Details of the significant impact assessments are provided in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), sections 5, pages 37-38, and section 6, pages 39-64**. Key questions from the conservation advice for koala (DAWE, 2022) in relation to a habitat critical to the survival of the species have been responded and are provided in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.2.2, page 45-47, and Table 6.2 (page 46) *Habitat critical to survival***. A summary of these responses is provided in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.2.2, Table 6.2 (page 46)**.

On the other hand, the results from the significant impact assessments conducted to the four (4) fauna species as identified in Section 4.1.4.2, **do not** indicate a Significant Impact to the following species:

- **Corben's Long-eared Bat**, *Nyctophilus corbeni* (EPBC Status is Vulnerable) – It is considered **unlikely** that the Project will have a significant impact on this species. While the Project will result in the removal of potential foraging habitat for Corben's Long-eared Bat (RE 11.5.1), the absence of any recent records of this species within the Project site and the availability of suitable habitat in the surrounding region indicates that this area is not critical habitat for the species. It is therefore considered unlikely that the Project will have a significant impact on Corben's Long-eared Bat.
- **Greater Glider**, *Petauroides volans volans* (EPBC Status is Endangered) – It is considered **unlikely** that the Project will have a significant impact on this species. Although the Project will result in the removal of 39.4 ha of potential dispersal habitat for the Greater Glider, the lack of good-quality habitat and the absence of any recent records within the Project site indicates that this area is not currently being utilised by the species. It is therefore considered unlikely that the Project will have a significant impact on the Greater Glider.
- **South-eastern Glossy Black-cockatoo**, *Calyptorhynchus lathami lathami* (EPBC Status is Vulnerable) – It is considered **unlikely** that the Project will have a significant impact on this species. While the Project will result in the removal of potential foraging habitat for the Glossy Black Cockatoo, the lack of preferred foraging habitat and nesting hollows, and the absence of any recent records within the Project site indicates that this area is not being utilised by the species. It is therefore considered unlikely that the Project will have a significant impact on the Glossy Black Cockatoo.

Details of the significant impact assessments are provided in the attachment: **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 5, pages 37-38, and section 6, pages 39-64**.

Summaries of the assessments of significant impacts for all the four (4) abovementioned species are in the following corresponding references within **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025)**.

- **Corben's Long-eared Bat**, *Nyctophilus corbeni* (EPBC Status is Vulnerable) - **Table 6.1 (page 43)**
- **Koala**, *Phascolarctos cinereus* (EPBC Status is Endangered) - **Table 6.3 (page 51)**
- **Greater Glider**, *Petauroides volans volans* (EPBC Status is Endangered) - **Table 6.4 (page 58)**
- **South-eastern Glossy Black-cockatoo**, *Calyptorhynchus lathami lathami* (EPBC Status is Vulnerable) - **Table 6.5 (page 63)**

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

The Project is located in poor-quality regrowth vegetation which has been subject to historical clearing and wildfire impacts. Whilst there is no evidence of koala habitat usage on the Project site or in the immediate surrounds, the Project will result in the clearing of 39.4ha of regrowth eucalypt woodland that is considered potential breeding and foraging habitat for koala, and 22.6ha of koala dispersal habitat in non-remnant areas and 'Of Least concern' shrubland RE 11.7.5. Please refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 7, page 65**.

The Project may also result in a small reduction of dispersal habitat for Greater Glider, although it is unlikely to have a significant impact on this species, with the most significant resources located beyond the Project site. Please refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 7, page 65**.

Overall, it is concluded that development of the proposed SGP North Solar Farm (i.e., the Project) is likely to have a significant impact on koala habitat of a total of 62ha and therefore **is a controlled action**.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Arrow Energy applied reasonable avoidance measures in order to decide on the location of the Project. These are summarised below.

- The preferred location for development of the Project was selected based on its proximity to the FCS and in an already cleared area. The project site selected is on land entirely mapped as Category X under Queensland's Vegetation Management Act 1999. This means that the vegetation is classified as non-remnant and therefore is exempt from State approval requirements under the VMA.
- The Project initially contemplated an area of approximately 70ha by including an area directly to the north of the current Project footprint of 62ha (refer to **Att B-SGP North Solar Farm Location map** and **Att K-SGP North Solar Farm Avoidance Areas**). This had incorporated remnant vegetation directly to the north of the current Project site and was also intersecting narrow bands of remnant vegetation to the south and east. By decreasing the Renewable Penetration Percentage, the number of panels was reduced from 43,000 panels to 30,000 panels and the Project footprint was refined and reduced to 62ha to ensure that all remnant vegetation areas and associated habitat were avoided, and with the corresponding infrastructure to be located entirely in existing cleared areas and regrowth vegetation.
- The reduction of the Project site from 70.38ha to 62ha reduced the need to clear areas of remnant habitat for Matters of National Environmental Significance (MNES) species within the Project site (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 1.3.2, page 8**).
- Even though the planned Project site's maximum potential disturbance footprint is 62ha, it is likely that the area to be utilised for the solar panels will be less than this maximum footprint, with a minimum footprint of 45ha. It is important to note that the exact footprint/size of the Project is to be confirmed once Arrow Energy onboards an independent contractor to complete the required scope of works.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Arrow CSG has an agreement with a landholder to utilise identified sections of a property for the purpose of offsetting project impacts upon protected biodiversity habitat. This property has previously been assessed by the Department of Climate Change, Energy, the Environment, and Water (DEECCW) as an acceptable offset site for koala and other MNES impacts in regard to another EPBC offset area which has subsequently been secured via a legally binding mechanism.

This agreement provides Arrow CSG the ability to secure additional areas within that property as offset site and will cover the potential impacts to koala habitat from the Project as described in **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 6.2.2, pages 45-48, section 6.2.4, pages 51-53, Table 6.3 (page 51), and Figure 6.2 (page 49) and Figure 6.2b (page 50)** and Section 4.1.4.5 of this referral form.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Motacilla flava	Yellow Wagtail
No	No	Myiagra cyanoleuca	Satin Flycatcher
No	No	Rhipidura rufifrons	Rufous Fantail

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.5.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not impact migratory species.

The migratory specie *Hirundapus caudacutus* (White-throated Needletail) was recorded during field surveys for the Supplementary SGP Environmental Impact Statement in 2013. While previously recorded overflying the Project area, the White-throated Needletail is an almost exclusively aerial species that forages above a wide variety of habitats ranging from heavily treed forests to open habitats. They seldom alight on the ground or vertical substrates, i.e., wooded habitats in the Project area which are considered too sparse and open to provide suitable roosting habitat and, as such, it is unlikely that the Project will have a direct or indirect impact on this species.

Although the White-throated Needletail is 'known to occur' within in the Project site, meaning '*the species or ecological community has been recently recorded on the Project site within the last 10 years*', there is no significant impact to this species from the development of the Project (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.7, page 33, and Table 4.2 (page 35)**).

Similarly, Squatter Pigeon (southern) has been assessed as 'likely to occur', but it is considered to be a transient specie (refer to **Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025), section 4.7, page 33, and Table 4.2 (page 34)**), on which basis, this specie was not included int he significant impact assessment.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not involve a nuclear action.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not impact Commonwealth Marine Areas.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not have impacts on the Great Barrier Reef.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.
*

The proposed action does not impact water resources in relation to the development of coal seam gas as it is not a coal seam gas extraction activity (refer to project description in Section 1.2.1 of this referral form).The Project, as described in Section 1.2.1, does not consider the extraction of water resources.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not impact Commonwealth Land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action does not have impacts on Commonwealth Heritage Places Overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

An alternative option to the Project has not been considered. In the event that the Project is not approved or constructed, the Field Compression Station (FCS) would still be able to operate on natural gas, however the reduction and offset of greenhouse gas (GHG) emissions resulting from energy provided by the Solar farm would not be fulfilled and would impact Arrow CSG’s ability to reduce its GHG emissions (refer to Section 1.2.1 of this referral form, i.e., Project purpose).

Given the location of the FCS, there is currently no existing connection into high voltage power to purchase renewable energy through a power purchasing agreement (PPA).

The purpose behind the SGP North Solar Farm is to reduce the GHG emissions of the associated FCS. To optimise the reduction in GHG emissions, construction and commissioning is desired to occur as soon as reasonably practical and in alignment with the FCS go-live date. The proposed schedule allows for the earliest online date for the SGP North Solar Farm, and any delays are not desired.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High
#2.	Document	Att B-SGP North Solar Farm Location map.pdf Location and footprint of the SGP North Solar Farm Project (the Project)	29/08/2024	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att C-SGP North Expansion Media Release (12 Aug 2024).pdf	12/08/2024	No	High

SGP North expansion media release				
#2.	Document	Att D-SGP North Public Notice (2 Aug 2024).pdf SGP North Public Notice on local newspaper	02/08/2024	No High
#3.	Document	Att E-Letter to Landholders on Arrow Energy's proposed future development.pdf Letter to landholders on Environmental Authority amendment application	02/08/2024	No High
#4.	Document	Att F-Cultural Heritage Field Assessment 2021-UNREDACTED.pdf Cultural Heritage assessment of Project site area UNREDACTED	28/02/2024	Yes High
#5.	Document	Att G-Cultural Heritage Field Assessment 2021-REDACTED.pdf Cultural Heritage assessment of Project site area REDACTED	28/02/2024	No High
#6.	Link	Current Environmental Authority application or amendment documents - Petroleum & gas applications https://environment.desi.qld.gov.au/management/a..		High
#7.	Link	Surat Gas Project (SGP) North Environmental Authority (EA0001399) amendment application RFI response https://www.arrowenergy.com.au/media/public-noti..		High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att H-Health Safety and Environment (HSE) Policy (Arrow Energy, Rev 6.0, 6 June 2024).pdf Arrow Energy's Health Safety & Environment Policy	06/06/2024	No	High
#2.	Document	Att I-HSE Standards Compendium (Arrow Energy, Version 5.0, March 2021).pdf Arrow Energy's Health Safety & Environment Framework	18/03/2024	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

#2.	Document	Att B-SGP North Solar Farm Location map.pdf Location and footprint of the SGP North Solar Farm Project (the Project)	28/08/2024	No	High
#3.	Document	Att J-SGP North Solar Farm Original Footprint Metadata.pdf SGP North Solar Farm Original Footprint Metadata	26/08/2024	No	High
#4.	Document	Att K-SGP North Solar Farm Avoidance Areas map.pdf SGP North Solar Farm Project Avoidance Areas	17/09/2024	No	High
#5.	Document	Att L-SGP North Solar Farm Final Footprint Metadata.pdf SGP North Solar Farm final footprint metadata	26/08/2024	No	High
#6.	Document	Att M-SGP North Solar Farm Avoidance Areas Metadata.pdf SGP North Solar Farm avoidance areas metadata	26/08/2024	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High
#2.	Document	Att B-SGP North Solar Farm Location map.pdf Location and footprint of the SGP North Solar Farm Project (the Project)	28/08/2024	No	High
#3.	Document	Att N-WDRC Property Report for Lot Plan 17AU199 (22 Aug 2024).pdf Regional Council (WDRC) property report for Lot Plan 17AU199	22/08/2024	No	High
#4.	Document	Att P-Solar Site Layout-REDACTED.pdf SGP North Solar Farm estimated infrastructure and ancillaries' layout	06/11/2024	No	High

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

3.1.4 Gradient relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf	08/01/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att F-Cultural Heritage Field Assessment 2021-UNREDACTED.pdf Cultural Heritage assessment of Project site area UNREDACTED	27/02/2024	Yes	High
#2.	Document	Att G-Cultural Heritage Field Assessment 2021-REDACTED.pdf Cultural Heritage assessment of Project site area REDACTED	27/02/2024	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High
#2.	Document	Att B-SGP North Solar Farm Location map.pdf Location and footprint of the SGP North Solar Farm Project (the Project)	28/08/2024	No	High
#3.	Document	Att O-Condamine-Balonne River catchment area.pdf Condamine-Ballone River Catchment	13/09/2024	No	High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

Type	Name	Date	Sensitivity	Confidence
#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

Type	Name	Date	Sensitivity	Confidence
#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

4.1.4.8 (Threatened Species and Ecological Communities) Why you think your proposed action is a controlled action

Type	Name	Date	Sensitivity	Confidence
#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

Type	Name	Date	Sensitivity	Confidence
#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High
#2.	Document A-SGP North Solar Farm Location map.pdf Location and footprint of the SGP North Solar Farm Project (the Project)	28/08/2024	No	High
#3.	Document A-SGP North Solar Farm Avoidance Areas map.pdf SGP North Solar Farm Project Avoidance Areas	17/09/2024	No	High

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

Type	Name	Date	Sensitivity	Confidence
#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	No	High

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

Type	Name	Date	Sensitivity	Confidence
------	------	------	-------------	------------

#1.	Document A-SGP North Solar Farm Significant Impact Assessment (Rev 5, 8 Jan 2025).pdf Significant Impact Assessment Report on Matters of National Environmental Significance	08/01/2025	High
-----	---	------------	------

5.2 Declarations

☒ **Completed Referring party's declaration**

The Referring party is the person preparing the information in this referral.

ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland
Representative's name	Tyson Croll
Representative's job title	Team Lead Regulatory Approvals
Phone	+61730124417
Email	RegApprovals.GovCorro@arrowenergy.com.au
Address	111 Eagle Street, Brisbane, 4000 QLD

☒ Check this box to indicate you have read the referral form. *

☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

☒ By checking this box, I, **Tyson Croll of ARROW CSG (AUSTRALIA) PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

☒ **Completed Person proposing to take the action's declaration**

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	054260650
Organisation name	ARROW CSG (AUSTRALIA) PTY LTD
Organisation address	4000 QLD
Representative's name	Matthew Jeffries
Representative's job title	Vice President External Affairs, Safety, Sustainability & People
Phone	0730124294
Email	matthew.jeffries@arrowenergy.com.au
Address	Level 39, 111 Eagle Street, Brisbane 4000 Queensland

☒ Check this box to indicate you have read the referral form. *

☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

☒ I, **Matthew Jeffries of ARROW CSG (AUSTRALIA) PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

☒ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☒ Check this box to indicate you have read the referral form. *

☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

☒ I, **Matthew Jeffries of ARROW CSG (AUSTRALIA) PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *