

ASSESSMENT REPORT

Narrabri Coal Seam Gas Utilisation Project

Extension of Time to Use Gas from PAL 2 (MP 07_0023 Mod 5)

1. BACKGROUND

The Narrabri Coal Seam Gas (CSG) Utilisation Project (the project) is located within the Narrabri local government area. The project comprises the gas-fired Wilga Park Power Station, gas compression facilities and gas gathering lines at the Bibblewindi and Bohenia CSG pilot wells, and a 32 kilometre (km) long buried gas flow line (see Figure 1).

Santos NSW (Eastern) Pty Ltd (Santos) operates the project, while Wilga Park Power Station is operated through Santos' subsidiary, Santos NSW (Narrabri Power) Pty Ltd.

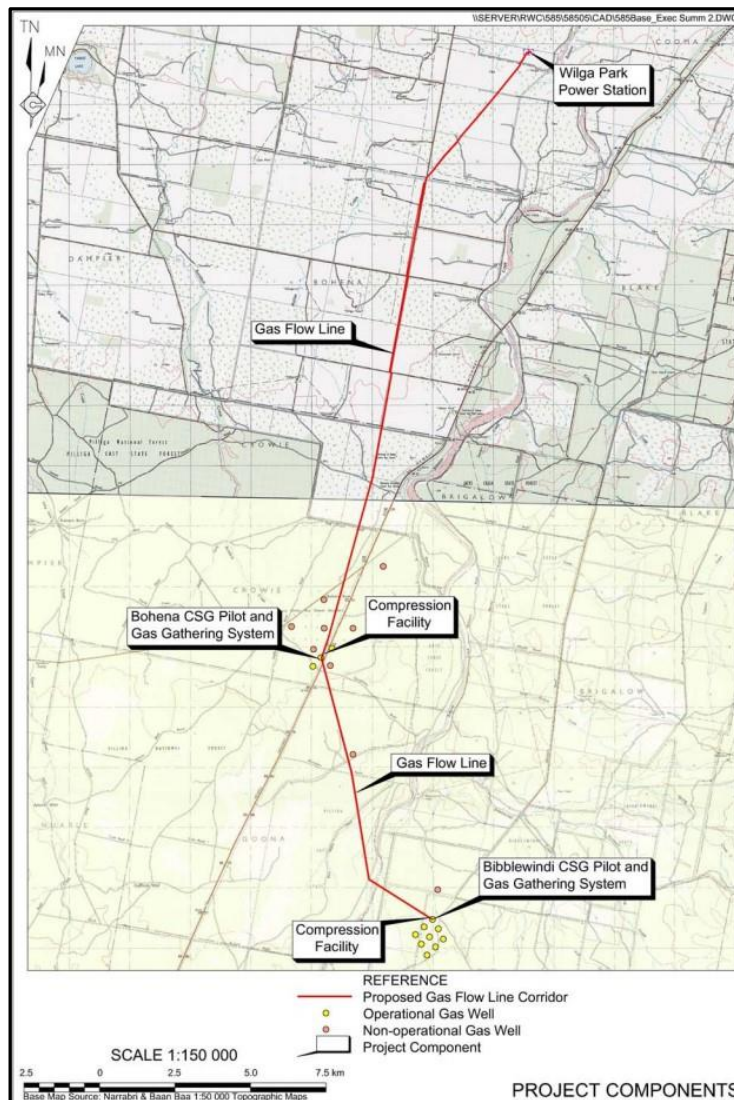


Figure 1: Approved Project

Santos also undertakes exploration and appraisal activities within a number of petroleum titles in the area, including Petroleum Exploration Licence (PEL) 238, Petroleum Assessment Lease (PAL) 2 and Petroleum Production Lease (PPL) 3 (see Figure 2).

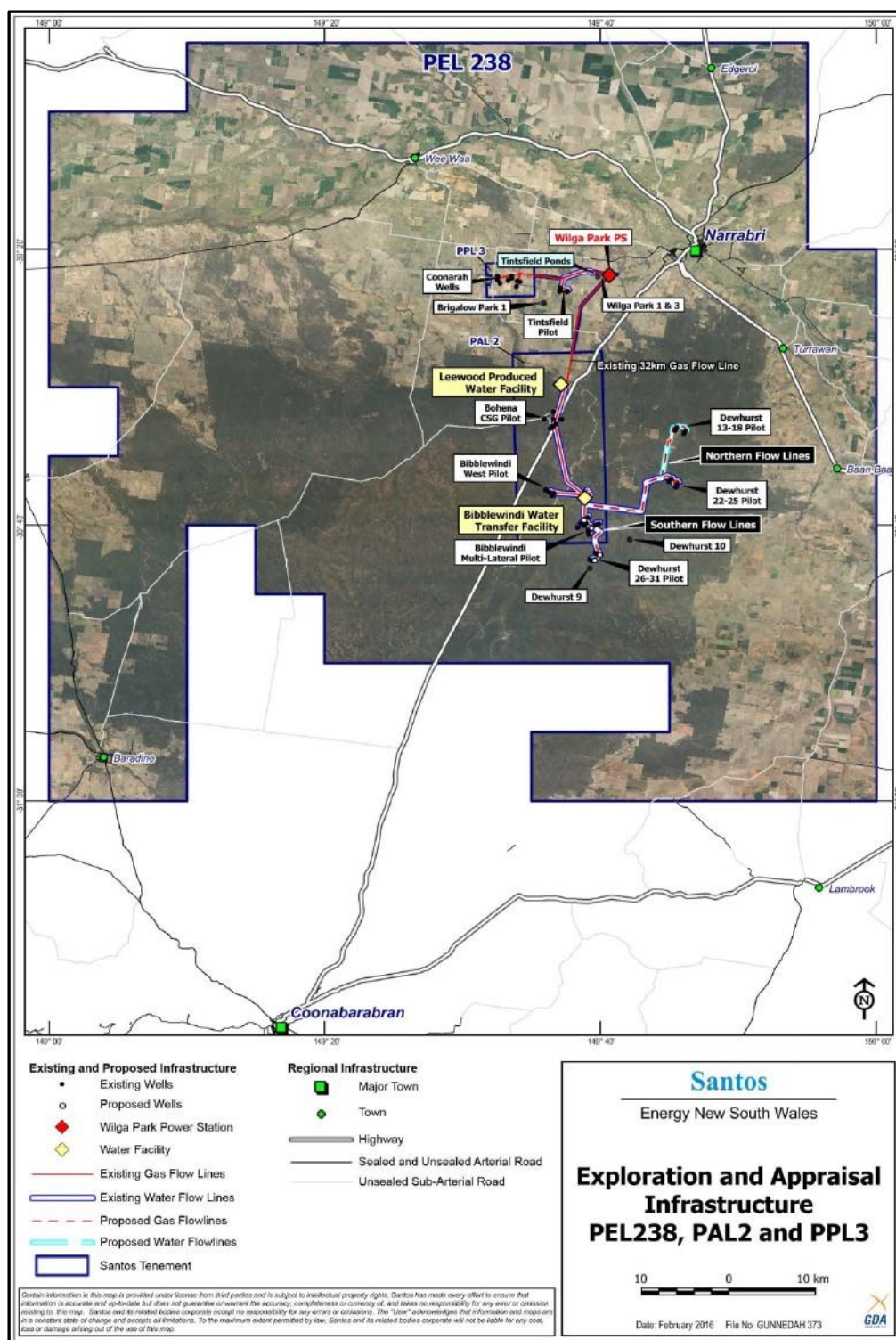


Figure 2: Gas exploration areas and infrastructure

The Wilga Park power station is permitted to receive gas from CSG wells located within the PAL 2 and PPL 3 areas. While the use of gas at the power station from existing or future wells within PAL 2 and PPL 3 is approved, all wells within PPL 3 are either plugged and abandoned or in the process of being plugged and abandoned, and there is no active gas production from this gas field.

The approval does not allow the receipt of gas from any CSG wells located within PEL 238.

Part 3A project approval

In December 2008, the project was approved by the then Minister for Planning under Part 3A of the EP&A Act.

The project was physically commenced in 2009 with construction of the gas gathering system, pipeline and compression facilities. New electricity generators have also been installed at the power station which currently has a generating capacity of 16 MW. However, Santos is currently operating the power station below 12 MW generating capacity.

The approval has been modified on three occasions and allows Santos to:

- generate up to 40 MW at Wilga Park Power Station using CSG sourced from the Bibblewindi and Bohena CSG pilot wells and from other wells within PAL 2 or PPL 3; and
- transfer gas and water from the Bibblewindi facility and Tintfield ponds to the Leewood water treatment facility along the gas flow line.

In 2016, Santos lodged a fourth modification application seeking to allow the receipt of gas from CSG wells located within PEL 238. This application was subsequently withdrawn.

The project approval does not include the extraction of gas from the wells within PAL 2, only the compression and transfer of the gas to the Wilga Park Power Station and gas gathering lines at the Bibblewindi and Bohena gas pilots.

Narrabri Gas Project

In February 2017 Santos lodged a development application and supporting Environmental Impact Statement (EIS) for the Narrabri Gas Project. That project would involve the progressive development of a coal seam gas field comprising up to 850 new gas wells on up to 425 well pads over 20 years, and the construction and operation of gas processing and water treatment facilities.

The Narrabri Gas Project would also include ongoing operation of existing and approved wells within PAL 2, PEL 238 and PPL 3.

The Narrabri Gas Project is the subject of a separate assessment process, and the Department is currently undertaking a comprehensive assessment of the merits of that project.

2. PROPOSED MODIFICATION

In July 2014, the project approval was modified (Modification 3) to allow gas sourced from additional CSG pilot wells in PAL 2 to be received at the Wilga Park Power Station to generate electricity, rather than being flared or released to the atmosphere. Prior to this modification, the receipt of CSG at the power station was restricted to CSG from the Bibblewindi and Bohena pilot wells only.

Under these modified conditions, the receipt of gas is limited to a period of 3 years from the date of determination of the modification (18 July 2014) for existing wells located in PAL 2, or from the commencement of receipt of gas for any new wells. This 3 year period for beneficial use of the gas at the power station from existing wells ends on 18 July 2017.

In its assessment of Modification 3, the Department noted that the 3 year period provided a reasonable time period for the supply of gas flow from the pilot wells and that a modification would be required to further extend this period.

Santos has advised that during the past 3 years appraisal activities have been impacted due to maintenance and repair work on the wells, and that further assessment of gas from the pilot wells within PAL 2 is required to continue to provide technical information for the proposed Narrabri Gas Project.

Consequently, the proposed modification seeks to extend the period of time for a further 3 year period (until July 2020) that gas from existing pilot wells within PAL 2 may be received for beneficial use in the power station.

The proposal does not seek to increase the capacity of the power station beyond the already approved 40 MW, and would not involve the construction of any new infrastructure.

No other changes to existing approved activities are proposed.

The proposed modification is described in the supporting information which accompanied the application (see **Appendix A**).

3. STATUTORY CONTEXT

Although Part 3A was repealed on 1 October 2011, the project remains a “transitional Part 3A project” under Schedule 6A of the EP&A Act, and hence any modification to the approval is to be made under the former Section 75W of the Act.

The Department is satisfied that the application can be characterised as a modification to the existing approval as the proposal would not alter the nature or scale of the development and would not significantly increase its environmental impacts.

Given these considerations, the Department is satisfied that the proposal is within the scope of Section 75W, and may be determined accordingly.

Under Section 75W of the EP&A Act, the Minister for Planning is the approval authority for the modification application. However, under the Minister’s delegation dated 16 February 2015, the Executive Director, Resource Assessments and Business Systems, may determine the application.

Beneficial Use Restrictions – *Petroleum (Onshore Act) 1991*

Section 28B of the *Petroleum (Onshore) Act 1991* allows the holder of a petroleum exploration licence or assessment lease to beneficially use recovered gas, in recognition of environmental benefits associated with generating energy from gas that would otherwise have been flared or released into the atmosphere.

Further, Section 16(2)(a) of the *Petroleum (Onshore) Regulation 2016* restricts the right to beneficial use to 1,000 days (whether or not consecutive) per well. This restriction was first introduced in an amendment to the previous *Petroleum (Onshore) Regulation 2007* in December 2015 and applies to coal seam gas wells where an activity approval has been issued under the *Petroleum (Onshore Act) 1991*.

It is important to note that this restriction is a statutory requirement on the existing wells within PAL 2 in addition to any requirements of the project approval, as modified.

4. CONSULTATION

The Department made the modification application and accompanying information publicly available on its website from 20 June 2017 and consulted with the Environment Protection Authority (EPA), the Division of Resources and Geoscience (DRG) within the Department of Planning and Environment and Narrabri Shire Council.

None of these agencies raised concerns about the modification (see **Appendix B**).

While the modification was not publicly exhibited, the Department received comments from two special interest groups, Lock the Gate and People for the Plains and two members of the public (both residing within the Narrabri region).

All objected to the modification and raised concerns about the justification for ongoing exploration activities, that the continuing beneficial use of the gas may constitute petroleum production and impacts associated with extending gas extraction (see **Appendix B**).

5. ASSESSMENT

In assessing the merits of the proposal, the Department has considered the:

- supporting information provided for the proposed modification;
- existing conditions of approval;

- the *Petroleum (Onshore) Act 1991* and the *Petroleum (Onshore) Regulation 2016*, in regard to beneficial use of gas;
- relevant environmental planning instruments, policies and guidelines;
- comments from the public received on the modification; and
- requirements of the EP&A Act, including the objects of the Act.

There are 15 active pilot wells currently under appraisal within PAL 2. An additional well is active, but is currently used for water monitoring only.

Santos has advised that appraisal of these pilot wells has been impacted by delays due to maintenance and repair work, and the Department accepts that further appraisal is required to further improve understanding of gas production rates to establish well production curves, which are used for predicting gas production rates from development wells.

Currently, gas sourced from these pilot wells may be used beneficially to generate power at Wilga Park Power Station. However, from 18 July 2017 gas produced from these wells during appraisal activities would need to be either flared or vented (released into the atmosphere) without opportunity for beneficial use for power generation, or the wells would be suspended without further appraisal work.

The Department believes that extending the time frame for use of the gas at the power station would minimise the venting or flaring of gas and associated environmental impacts and provide a better environmental outcome.

No new infrastructure is proposed and there would be no additional disturbance.

The Department notes that use of gas at Wilga Park Power Station remains subject to the existing approved 40 MW capacity. Gas in excess of that required to operate the power station at 40 MW could not be used without further planning approval.

Consequently, the Department is satisfied that there would be no increase to the environmental (e.g. biodiversity, heritage and water) or amenity (e.g. noise, air quality and visual) impacts from the transfer of gas and generation of power that have already been assessed and approved.

The Department also notes that, notwithstanding any modification of the project approval to allow receipt of the gas beyond July 2017, use of the gas from the wells would be limited under clause 16(2)(a) of the *Petroleum (Onshore) Regulation 2016* to 1,000 days (whether or not consecutive) per well.

Due to the limited number of wells and the statutory restrictions on the beneficial use of gas from these wells, the Department is satisfied the modification would not facilitate commercial production under the petroleum assessment lease.

It is likely the Narrabri Gas Project will be determined within the next 12 to 18 months. However, even if that project is approved, Santos would have five years to act on the consent. During that period, further appraisal activities in preparation for commercial production would still be required. Consequently, the Department considers that a three year extension is justified.

6. RECOMMENDED CONDITIONS

The Department has prepared a notice of modification and consolidated project approval for the modification (see **Appendices C and D**) to allow Santos to continue to receive gas for use from the PAL 2 appraisal wells that existed at the date of approval of Modification 3 at Wilga Park Power Station for a further 3 years until 17 July 2020.

The Department has also recommended some administrative amendments to the conditions, including:

- requiring the operational environmental management plan to be reviewed, and revised if necessary, based on modifications to the project approval, complaints and incidents; and

- removing condition 2.26A which required Santos to amend the Gas Field Produced Water Management Plan, following approval of Modification 3, as this plan was approved by DRE in 2014.

The Department has also made some minor amendments to reflect changes to Government agency names and relevant administrative changes.

7. CONCLUSION

The proposed modification would extend the period of time that gas generated by exploration and appraisal activities within PAL 2 can be beneficially used at Wilga Park Power Station.

The Department considers the modification to be minor in nature and that it is unlikely to increase the environmental impacts of the previously approved project as no additional infrastructure would be required and there would be no disturbance beyond the existing disturbance footprint.

The Department believes the proposed modification is consistent with NSW Government policy promoting the beneficial reuse of gas from exploration activities.

The Department also believes fuelling the power station from gas that would otherwise be wasted would be a positive environmental outcome.

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act, including the objects of the Act and the principles of ecologically sustainable development, and considers that it is approvable, subject to conditions.


8. RECOMMENDATION

It is recommended that the Executive Director, Resource Assessments and Business Systems, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report, noting that the Department considers that the modification is approvable, subject to conditions;
- **determines** that the proponent's request is a modification under Section 75W of the EP&A Act; and
- if the Executive Director determines to modify the approval, **signs** the attached notice of modification.

 12/7/17

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 12/7/17

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APPENDIX A – SUPPORTING INFORMATION

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8508

APPENDIX B – GOVERNMENT ADVICE AND PUBLIC COMMENTS

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8508

APPENDIX C – NOTICE OF MODIFICATION

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8508

APPENDIX D – CONSOLIDATED PROJECT APPROVAL

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8508