

Gloucester Coal Seam Gas Project

Community
information
fact sheet

Number 3
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Some questions we've been asked about the Gloucester Coal Seam Gas Project.

Frequently asked questions

Gas well investigation and construction

Q How long does it take to install a well?

A From the initial hardstand construction through to restoration will take approximately two to three months.

Q What is the minimum spacing for gas wells (full production)?

A We are planning for a 600 metre grid spacing – one well per 36 hectares (90 acres). This may increase or decrease in certain areas based on environmental constraints such as proximity to houses and streams.

Q Over time will wells be spaced more closely in order to extract remaining gas?

A 600 metres is likely to be sufficient spacing to extract the gas, however we can't be certain about this at the moment. Tighter spacing may be required.

Q Has this happened at other gas extraction areas?

A Coal seam gas development is a relatively new industry in Australia, so reduced spacing has not been needed anywhere we know of. Final spacing will depend on the reservoir's performance over time.



Q What is the schedule for the construction of the wells?

A Our current plan is to drill and complete 60-90 wells within a year of approval.

Q How many holes will be drilled between Gloucester and Duralie by next year?

A The project development plans for 60 – 90 wells between the east of Gloucester and to the south of Stratford. This won't start until project approval which we anticipate having mid to late 2009. The wells will be completed over approximately one year.

Q Does each production well require electricity and a dam for water?

A Each site will need electricity to run a pump, at least initially, depending on the well's performance. Some wells may not require pumps in the longer term. For wells that require a pump we intend to connect them to mains power through the

existing grid or new connections (generally underground). Wells that don't need pumps will get power through a solar array. Produced water will be returned to a central dam within the Central Processing Facility for treatment and dispersal, so we don't need dams at every site.

Q Will the wells be connected by a network of roads and/or pipelines?

A Roads and a gathering system are a necessary part of the development but will be implemented and located with landowner consultation and consent, and located to minimise any effect on existing land use.

Q What are wellheads?

A A wellhead (see photo above) comprises a pump, a separator and associated pipework and safety equipment. It is installed on a gravel hardstand approximately 10m x 15m.

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Q How noisy are wellheads?

A The wellhead pumps produce a small amount of noise.

Q When the location of the wells has been determined, will the community be notified?

A As soon as the project receives the director general's requirements, all landholders will be informed.

Q Where will the gathering lines be located on each property?

A The pipelines will be placed alongside existing infrastructure, boundaries and existing fence lines wherever possible in order to minimise the impact on current and future land use requirements

Q How will the landholder know where the gathering lines are located?

A The pipelines will be clearly marked with marker posts.

Environmental impacts and investigations

Q How will structures affect the scenic quality of the landscape, wildlife habitat and wildlife populations?

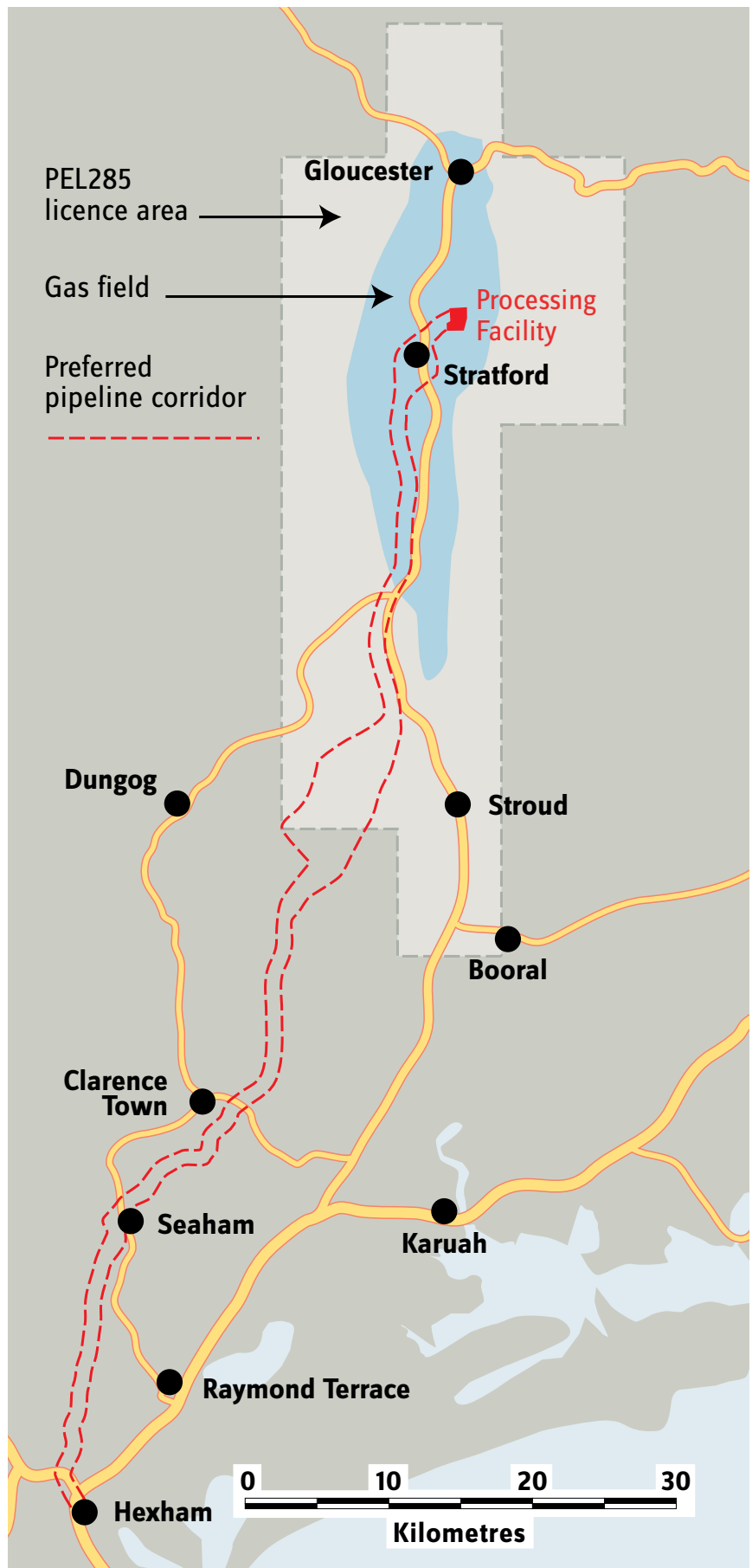
A All these issues will be addressed in detail as part of the environmental assessment (EA) and appropriate mitigation measures will be taken to minimise these effects.

Q How will gas extraction affect groundwater flows?

A Preliminary hydrogeological studies have been completed, and further detailed hydrological studies will be undertaken as part of the environmental assessment process. Monitoring wells are currently in place for the pilot project and, to date, have not shown any effect on the aquifers. Further monitoring wells will be implemented across the proposed field to monitor groundwater conditions during production.

Q How is the produced water going to be treated?

A Currently, the produced water from the exploration wells is contained in sealed storage dams located on



This map shows the proposed site of the Central Processing Facility and the corridor for the pipeline.

the Tiedeman's property. Once the project goes into production, the produced water will be treated, probably by reverse osmosis, to remove the salt and minerals from the water to a suitable quality for use in the area.

Q Can extraction cause land subsidence?

A No. Previous work has demonstrated that coal seam gas production does not cause measurable subsidence. This will be reviewed during the EA process.

Q Has the Avon River and its potential flooding impact to the project been considered?

A Yes. The Avon River and potential impacts have been considered; however we do not see this as a significant concern for the project.

Central Processing Facility

Q What is the Central Processing Facility?

A All the gas and water produced by the wells will be carried to the Central Processing Facility via underground pipelines. There, the gas will be treated, dried and compressed for transport via pipeline to Hexham. The produced water will be treated for irrigation or industrial use.

Q Are any compressor stations being built?

A No compressor stations are planned for the field other than at the Central Processing Facility.

Q Will the compressor station be connected by a network of roads and/or pipelines?

A All the gas and water gathering lines will be constructed underground and return to the Central Processing Facility. Access roads will only be constructed to each well.

Q What noise does a compressor station make?

A While a compressor does produce noise, we will enclose all compression equipment in acoustic enclosures to attenuate this.

These will be engineered to meet the standards determined in the environmental assessment.

Q Will there be many truck movements when the compressor station is being constructed?

A The units of the compressor station will be shipped to Newcastle and then delivered to the site by road. The transport logistics will form part of the environmental assessment.

Q Will you need to close the road when the compressor station is being constructed?

A This will form part of the environmental assessment. Community members will be notified in advance of any road closures, increased traffic or large truck movements.

High pressure pipeline investigation and construction

Q. How wide is the Construction Corridor?

A. We typically need a 25-30 metre wide work space. This can be reduced where necessary in confined or environmentally sensitive areas.

Q. Will an easement be required?

A. Yes. As part of our legislative requirements under the Pipeline Act 1967, an easement must be registered on the land's title. This will typically be 20m wide.

Q. Will the construction area be restored upon completion?

A. Yes. The work area will be fully restored and formed back to the land's original contours. To ensure all land is reinstated to the landowners' expectations, a Construction & Restoration Agreement will be developed with each landowner. This will cover issues such as construction access and re-seeding requirements.

Q. How will the pipeline be constructed across watercourses?

A. As part of our environmental assessment process, each

watercourse crossing is examined to determine the best crossing method, either open cut and buried or using trenchless technologies. The best option depends on geology, environmental constraints and permanent water levels.

Community Consultation

Q Will I be kept informed throughout the project?

A Yes. A thorough community engagement program has been prepared to ensure landholders and the community is kept informed throughout the duration of the project.

The community will be kept informed throughout the project via a number of communications mechanisms, including; community updates, fact sheets, letters, meetings, project website, and through the community consultative committee.

Q What is the community consultative committee (CCC)?

A As part of this project, a community consultative committee will be formed to assist the project team with the investigations. This group will meet four times a year and is an important way in which the community can provide input into the development of the project.

Q How can I contact the CCC?

A If you would like to contact a member of the CCC, please call the project information line on 1800 810 680 (free call).

Q What can the public do if they are being affected by traffic?

A The project team would appreciate feedback on all traffic problems as soon as they occur by calling the project information line on 1800 810 680 (free call).

A traffic management plan and traffic management protocols are being developed for the project to minimise effects on the local community.

Other

Q If Lucas is planning on developing a power station will they consider consolidating with the Stratford mine site to minimise the visual impact on the region?

A A power station is not part of the concept plan submitted for approval. If a power station were to be considered, it is likely to be sited in proximity to the Central Processing Facility which will be determined as part of the site selection study during the Environmental Assessment process.

Q Is there a chance that the gas could leak?

A The wellheads, gas gathering lines, compressor station, and high pressure pipeline are all designed to Australian Standards and must adhere to a stringent risk assessment study which forms part of the environmental assessment.

Q What precautions are put in place to ensure there are no gas leaks at the wellhead?

A Safety valves are installed at the wellheads which would automatically isolate the flow of gas if there was a gas leak.

Q How many permanent jobs will be created?

A Once the project is developed and operating approximately 30 – 40 permanent jobs will be required.

Q Will there be additional power lines throughout the community?

A Lucas Energy will use existing power network where possible and generally connect the electricity to the each well site with underground cable.

Q What impact will heavy loads have on our bridges?

A The transport of heavy loads is covered by permits from the RTA with input from the police and council.

Q What controls does Lucas Energy plan for its Tiedeman's operation in relation to:

Hours of operation

A Currently the hours of operation are generally between 7am to 6pm unless there is an emergency.

Heavy vehicle access

A During construction there will be periods of high activity which will be limited to the hours of operation noted above. During operations there will be mainly light vehicle traffic.

Heavy vehicle frequency

A A traffic management study will be included as part of the environmental assessment. An alternative access to Tiedeman's property may be considered following review of this.

Heavy vehicle speed

A The speed of all vehicles, including heavy vehicles, will be subject to normal road rules.

Noise and light from the facility

A Flaring of gas is currently occurring at a central location as part of production testing. Flaring of gas other than on rare occasions will not occur after development and connection of the Central Processing Facility.

Q What short and long-term plans does Lucas Energy have in place for Tiedeman's?

A The short term plan for Tiedeman's has been to establish a centre to set up a pilot project as part of our exploration program. This forms part of our requirements as a holder of a petroleum exploration licence.

A long-term plan has not been established and will be considered as part of our project planning and Environmental Assessment processes.

As part of the Environmental Assessment we will evaluate the suitability of the Tiedeman's site compared to potential alternative sites.

Q What approval process does Lucas need to go through in order to develop and change the Tiedeman's site?

A All exploration including the Pilot Project at Tiedeman's falls under Part 5a of the Environmental Planning and Assessment (EP&A) Act 1979, which is regulated by the Department of Primary Industries (DPI). Before any exploration work is undertaken a "review of environmental factors" is completed and submitted to DPI for approval. All current activity on Tiedeman's has been authorised through this process.

Lucas Energy has submitted a project application to the Department of Planning seeking approval for the development of 60 – 90 gas wells, a central processing facility and a high pressure pipeline to deliver gas to Hexham. This application is being assessed under Part 3a of the EP&A Act 1979 and is subject to approval by the Minister for Planning.

Q Why can't the Central Processing Facility be located in a designated industrial area as opposed to a rural area?

A At this stage there is no designated heavy industry zone suitable for the plant. There have been a number of discussions with Gloucester Council on this matter, and these are continuing to see if a viable alternative exists.

Q Will Fairbairn's Road need to be re-zoned for project activities to occur?

A No. The proposed activities are permissible on land zoned Rural under the Gloucester LEP and therefore no re-zoning will be required.