

Questions & Answers

Question – What is a Gas Storage Facility (GSF)?

Answer: It is an above ground insulated tank kept at atmospheric pressure. The gas is cooled to a liquid at about minus 161°C and stored. When the stored liquefied natural gas (LNG) is needed, it is warmed up and converted back into natural gas.

Question – Why is AGL proposing to build a GSF at Tomago?

Answer: The Tomago industrial area is appropriately zoned for this type of development and is close to a major demand centre. The site is adjacent to the Tomago Aluminium smelter, a significant industrial operation with high standards of safety consistent with those of AGL. The site is large enough to provide the buffer zone as required by the Department of Planning.

Question – Why do we need more gas?

Answer: The Facility will prevent supply constraints, particularly on cold winter days, with the capacity to store the equivalent of about two weeks' gas for the Greater Newcastle region.

Question – What makes up the Newcastle GSF?

Answer: The Facility comprises four components –

1. Gas Pipeline – A gas pipeline will join the gas plant to the Hexham receiving station.
2. Gas Plant – This will include a refrigeration plant to liquefy natural gas, an LNG storage tank, and a vaporisation system to convert the stored LNG back to natural gas for delivery into the pipeline.
3. Access Road and Utility Corridor – The Facility will be accessed from Old Punt Road via a 1.4 kilometre access road with a dedicated corridor for utilities.
4. Hexham Receiving Station – The natural gas will be transferred to and from the Jemena distribution network at the Hexham receiving station.

Question – Why do we need the GSF?

Answer: This reserve of natural gas will play a critical role in ensuring security of supply during periods of peak energy demand or during periods of supply disruption. It will also support the development of gas-fired power generation which can be used to back up renewable energy supplies such as wind power. This is consistent with the New South Wales Government's future energy planning needs.

Question – What is the level of investment?

Answer: The development would result in an investment by AGL of about \$300 million.

Question – How many jobs will be created?

Answer: During construction of the GSF, up to 300 people will be employed. Once constructed, up to 15 permanent full-time employees will be required.

Question – How big will the LNG storage tank be?

Answer: The tank height from the ground to the roof apex will be approximately 56 metres.



Question – Is LNG hazardous?

Answer: LNG is natural gas which has been cooled down sufficiently to form a liquid at atmospheric temperature. LNG is not like LPG (liquefied petroleum gas) which has to be stored under pressure.

As a liquid, the risk of LNG burning is extremely low. It is colourless, odourless and non-toxic. It does not mix with water and leaves no residue.

The hazards associated with LNG are similar to those of natural gas except that it is much cooler and therefore forms a much smaller gas cloud for the same size release.

If LNG did escape from its storage containment to the environment, it would form a pool and begin warming immediately and returning to its gaseous form. As the gas warms up, the vapours become lighter than air and rise into the atmosphere and dissipate.

LNG and natural gas are mainly composed of methane gas. Methane vapour is only flammable if it is within the concentration range of 5-15% gas in air, otherwise it is non flammable.

Question – What are the risks associated with the GSF?

Answer: The GSF will process, handle and store substantial quantities of LNG. The GSF will be designed to Australian and International standards to minimise the risk of an incident happening and provide mitigation measures in the event an incident does occur.

Over 100 small- and large-scale LNG storage facilities are in operation in the United States and Europe. A similar facility to the GSF was built in Melbourne, Victoria, in 1980 and has experienced no adverse incidents.

The construction, commissioning and operation of the Newcastle GSF will be subject to government approvals processes, including the WorkCover Safety Case process, minimising risk to workers and the community.

The safety, efficiency and stability of the GSF will be achieved through the use of high-integrity safety systems, regular preventative maintenance programs, detection and protective measures. Security measures will include security patrols, protective enclosures, lighting and monitoring equipment.

The site and plant layout will ensure that any operational issues are contained within the site boundaries, including an appropriate buffer zone as required under legislation.

Question – When will construction occur?

Answer: AGL aims to be ready to deliver gas to market from the GSF in 2014. To meet this target, construction will need to start by mid 2011.

Question – What is the current status of the project?

Answer: The project is subject to Part 3A of the NSW Environmental Planning and Assessment Act, 1979. A Preliminary Environmental Assessment (PEA) was submitted to the NSW Department of Planning in August 2010. A full Environmental Assessment (EA) is being prepared and will be placed on exhibition and submissions from the community will be invited.

Question – How will the project affect the community and the environment?

Answer: AGL has engaged Coffey, a specialist environmental consulting firm, to prepare the EA. Community consultation is an important part of this process.

Question – How will the community be kept informed?

Answer: AGL will keep the local community updated throughout the planning process and ensure residents and businesses are fully informed. AGL will update its website as important information becomes available (www.agl.com.au/NewcastleGSF). A 24 hour information telephone line is also available (1300 473 660). Alternatively any queries can be sent by email to GSF@agl.com.au.