



Newcastle Gas Storage Facility

Community Dialogue Group Meeting 6
29 May 2018

Agenda



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Open and welcome
Previous minutes
Business arising

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Local Community Investment
Update

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Modification 3

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NSW Generation Plan

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Next meeting
Close

Open and welcome

Previous minutes and business arising

Local Community Investment Program



19 May 2018 - AGL was proud to participate in Hunter Life Education's World's Biggest Car Boot Sale



AGL's contribution went towards set up and construction of the main presentation stage area for the "Preloved Salvaged for Relove" celebrity and local specialist presentations. AGL also had a stall at the event and spoke to visitors about energy savings.

Local Community Investment Program



- Round 2 of the LCIP has kicked off. Five applicants will join us later this morning to present their applications
- Applicants include:
 - Len Lollback from the Seaside Singers Community Choir of Port Stephens
 - Patricia Shearston The Hunter Region Botanic Gardens
 - Wendy Elworthy and Denise Tyler from Marine Lemon Tree Passage
 - Fran Corner from the Tilligerry Community Association
 - Damien Isaacs from Newcastle Meals on Wheels.
- The CDG will then assess the applications and determine funding allocations.

Modification 3

Update and next steps

Modification 3

On 27 February 2018, the Department of Planning and Environment (DP&E) approved the Newcastle Gas Storage Facility MOD 3 under Section 75W of the *Environmental Planning and Assessment Act 1979*.

The modification includes constructing and operating a 4.5 kilometre low pressure liquid natural gas (LNG) pipeline between the gas storage facility and the adjoining Tomago Aluminium Company (TAC) smelter facility.

You can view the official determination here:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8840

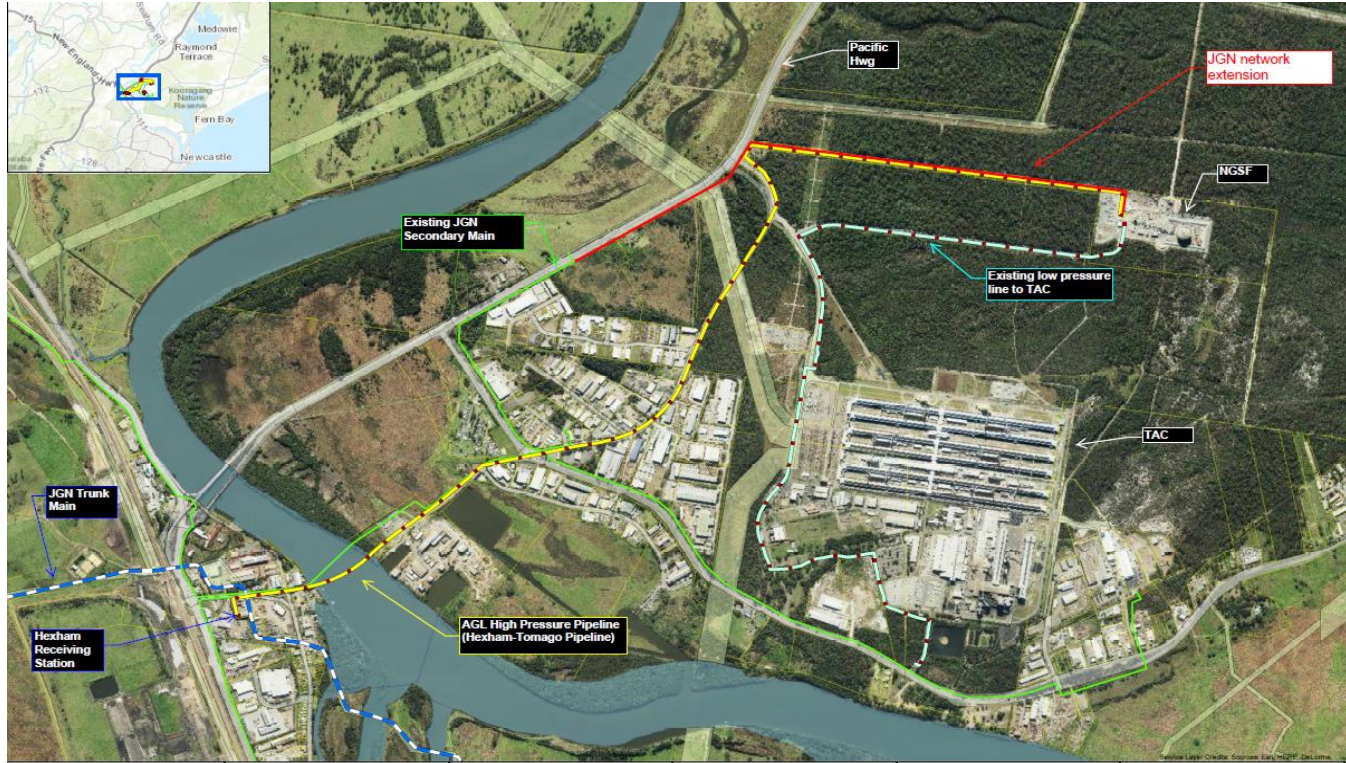
Next steps:

- Submit a variation application to the EPA for our Environment Protection Licence
- Update the Environmental Management Plan and submit to the DP&E.

AGL has drafted the following timeframe for construction:

- Jemena construction period: June through to November 2018
- NGSF construction period: June to start of December 2018
- Commissioning period: October to start of December 2018 (to be completed at the same time as construction completion)

Modification 3



Energy in action.

Author: Group Operations
Date: 23-02-17
Ref: 2628R14

NGSF Gas Pipeline Route & Jemena Gas Network

Kilometres
0 0.5 1
Scale 1:15,000@A3

Legend

NGSF HP Pipeline	Jemena Gas Network	Cadastre	Strata, Strata
NGSF High Pressure Pipeline	JGN Trunk Pipelines	Parcel Type	Water
NGSF LP Pipeline	JGN Secondary Main	Lot Parcel	Rail
NGSF Low Pressure Pipeline		Road	Easement

Geocentric Datum of Australia 1994 MGA Zone 56
Sources: AGL Energy Limited, Omnilink PSMA Data, ESRI Imagery



Environment update

Environment related work at NGSF



- Offset Property annual monitoring and weed management
- 6 monthly groundwater and surface water monitoring
- Air emissions monitoring on H101



NSW Generation Plan

NSW Generation Plan

Liddell replacement is AGL's preferred option compared to the proposal to extend the life of Liddell

Liddell replacement

Preferred option

Liddell Power Station closed in 2022 and repurposed with series of investments in new, low emissions generation and upgrades to existing generation

- Staged approach to bring new investment online ahead of Liddell retirement
- Each phase will track timing, deliverables and completion dates of each new investment



Newcastle gas peaker
250MW or other NSW sites



NSW gas peaker
500MW



Renewables
1600MW



Demand response
up to 150MW



Bayswater upgrade
100MW



Liddell battery
250MW



NSW pumped hydro
Feasibility



Liddell synchronous condenser
Inertia and reactive power

Total capital investment: ~\$1,360m
(of which ~\$490m in stage 1 projects)

Levelised cost of energy: \$83/MWh

Asset life: 15 to 30 years

Liddell extension

Work undertaken at Liddell Power Station to enable AGL to operate the station beyond 2022

- Extending Liddell's life by five years to deliver 1000MW of peak capacity at reduced availability
- Analysis has been done to examine the costs and other risks associated with extending Liddell



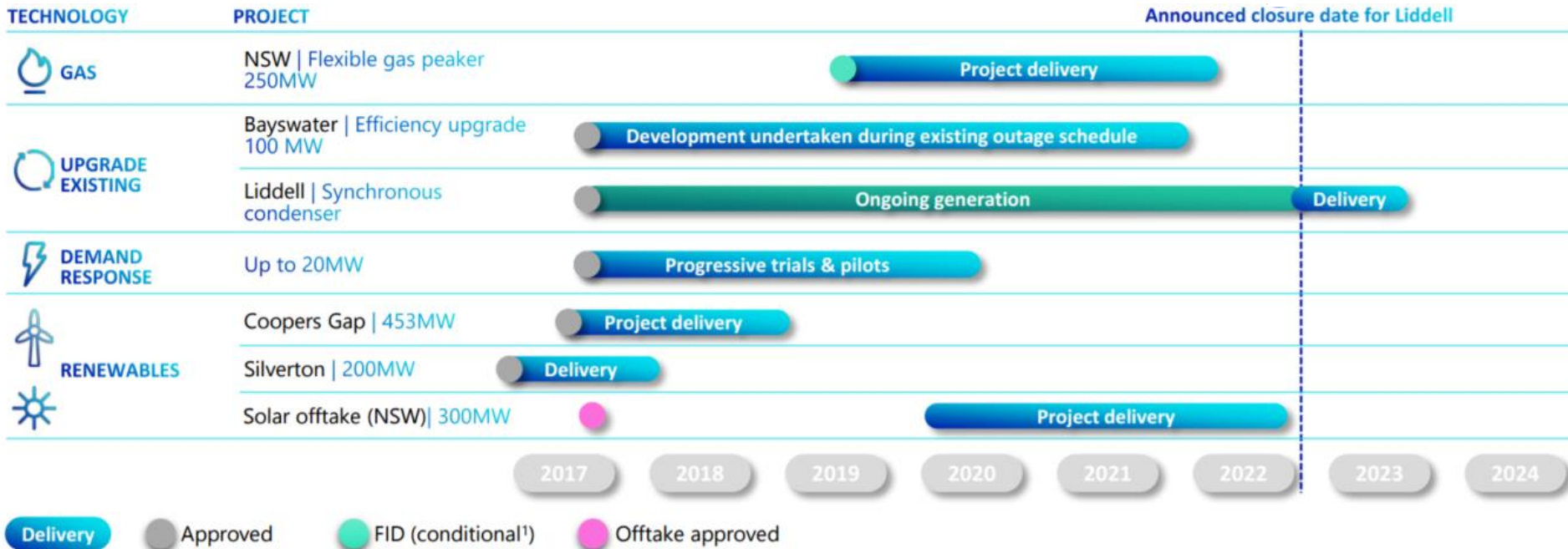
Total capital investment: ~\$920m

Levelised cost of energy: \$106/MWh

Asset life: five years

NSW Generation Plan

Stage 1 (feasibility during 2019 or earlier)



1. Conditional final investment decisions will be subject to planning approval, EPC contract and connection agreement.

NSW Generation Plan



Announcement of a 250 MW gas-fired electricity generation plant near the NGSF in the Tomago region

On 26 April, AGL announced its commitment to build a gas fired power station near Newcastle that will form part of the electricity market's response when old coal fired power stations are withdrawn from the market. This station will play an increasingly important role by providing capacity to firm intermittent renewable generation.

Tomago is one of the sites AGL is looking at, as well as elsewhere in NSW.

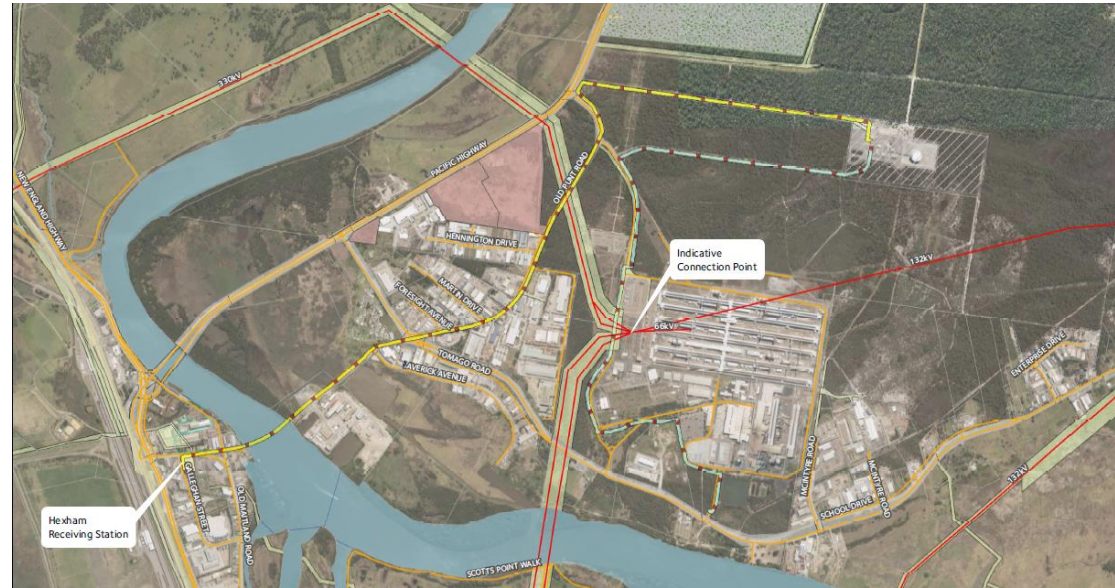
As well as the site, AGL are considering the best technology for the plant, this could be reciprocating engines or gas turbines.

NSW Generation Plan

Announcement of a 250 MW gas-fired electricity generation plant near the NGSF in the Tomago region

AGL is still assessing sites near Tomago that will be most appropriate. We expect the site to be on the northern side of the Hunter River and near AGL's Newcastle Gas Storage Facility (NGSF).

The location must meet the key criteria which includes accommodating the proposed 250MW Power Station and ancillary equipment, proximity to major roads, existing transmission lines for connection, high pressure gas pipeline for tie in, in addition accessibility during construction and ongoing operations.



NSW Generation Plan

Announcement of a 250 MW gas-fired electricity generation plant near the NGSF in the Tomago region

Next steps include (over the next 6 – 12 months):

- Feasibility studies to help determine site
- Community and stakeholder engagement and Community Dialogue Group
- Prepare planning submission

General Business

Next meeting and close



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