



# Newcastle Gas Storage Facility

Community Dialogue Group Meeting 7  
30 July 2018

# Agenda



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Open and welcome  
Previous minutes  
Business arising

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Local Community Investment  
Program

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Modification 3

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NGSF Environment Update

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NSW Generation Plan and 250 MW  
Gas-Fired Power Station

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Next meeting  
Close

# Open and welcome

Previous minutes and business arising



# Local Community Investment Program

# Local Community Investment Program Round 2



HUNTER REGION BOTANIC  
GARDENS

## SeaSide Singers



**TILLI NEWS**  
Edition 65 March 2017

**our Tilligerry community**

Editorial	1	Tilligerry Community Association meets at Tilligerry Habitat at 6pm on Tues 21st March
News News	2	
Notice	3	<b>Agenda</b> AGM Reports Elections <b>General Meeting</b> Minutes of Previous meeting Are we having a Tilligerry Festival? What committees will be involved? What changes will be made to the program? What band/music will be on the stage with Tilligerry Chamber of Commerce? Do we need more support for Tilli News? Other business from floor.
Tilligerry Park	4	
Wags Hill	5	
Chamber of Commerce	6	
KU Peninsula	7	
Longsight/Class Up Area	8	
TAG	9	<b>Re-formation of Tilligerry Chamber of Commerce</b> Tilligerry Chamber of Commerce is calling a meeting at <b>Lemon Tree Passage Bowling Club at 6pm on Wednesday 15th March</b> asking members from the whole Tilligerry Peninsula to work together for the future. At the time of going to print businesses were being described as organisations with an AEM. The annual Chamber dinner meeting in the past was a great community networking event. Phn 840775484
Tilligerry Tourism	10	
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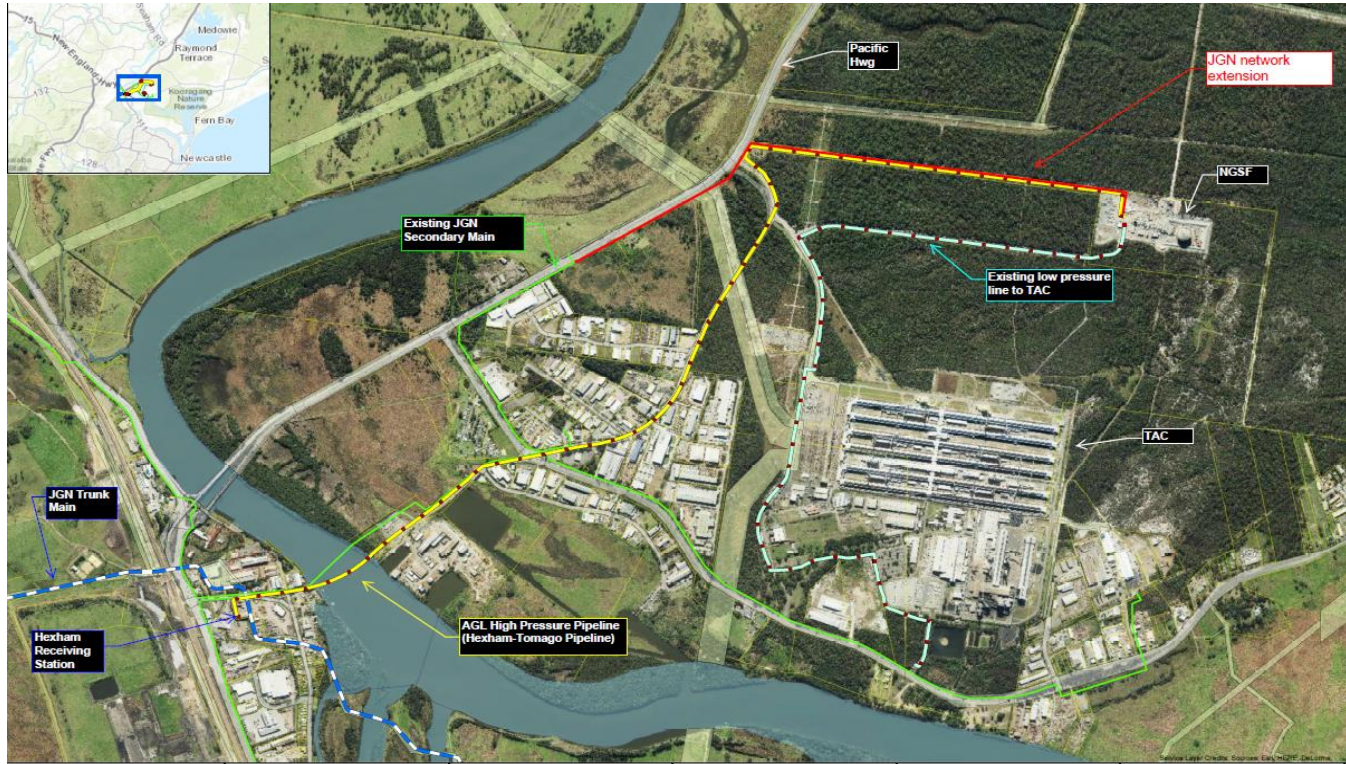
KU Peninsula Preschool  
40 Pershing Place Tarilba Bay 2319  
Phone—0245623398  
Email—ku.peninsula@ku.com.au

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# Modification 3

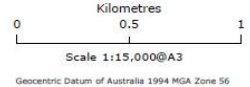
Update and next steps

# Modification 3



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

## NGSF Gas Pipeline Route & Jemena Gas Network



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

Disclaimer: While AGL has taken great care and attention to ensure the accuracy of the data represented on this map, no liability shall be accepted for any errors or omissions. No part of this map may be reproduced without prior permission of AGL.

Sources: AGL Energy Limited, Omnilink PSMA Data, ESRI Imagery



# Modification 3

## AGL Pipe Easement

- All pipe strung out and welded with about 1.34 km in ground
- HP crossing expected to start around the second week of August
- Tie in to NGSF targeted for around the second week of September
- Hydrostatic testing date to be confirmed. Water disposal after hydro test to be trucked out.
- Ongoing safety surveillances with no safety issues
- Ongoing monitoring with no environmental issues
- water samples taken at trench levels sent to Hunter Water. Hunter Water agreed with results and the proposed water management.
- Pre-pump and post pump water test carried out to confirm no contaminates added if pumping to ground. All tests have been cleared and approved.

## Pacific Highway

- 260 metres of pipe in the ground
- case bore (under highway) to start around the second week of August on the west side of the highway.

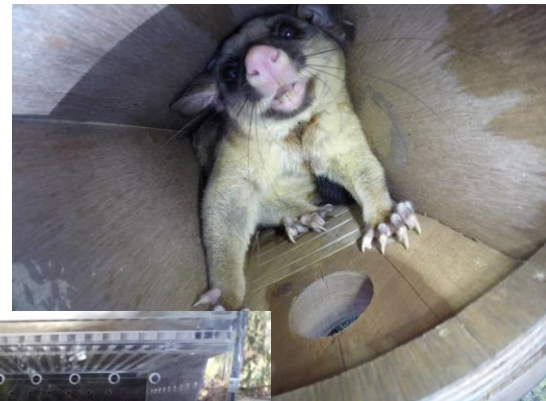




Environment update

# Environment related work at NGSF

- Annual Nest Box monitoring and reporting
- Medowie Offset Property weed management
- Annual air emissions monitoring on three boilers
- Environmental Management Plan reviewed and updated
- Preparation of Annual Returns for EPA (in progress)
- Preparation of National Pollutant Inventory Report for EPA (in progress)
- PSC Koala Surveys (scheduled 01 August 2018)
- Annual Monitoring Reports for CAs to OEHL and PSC



# Conservation Agreements Background

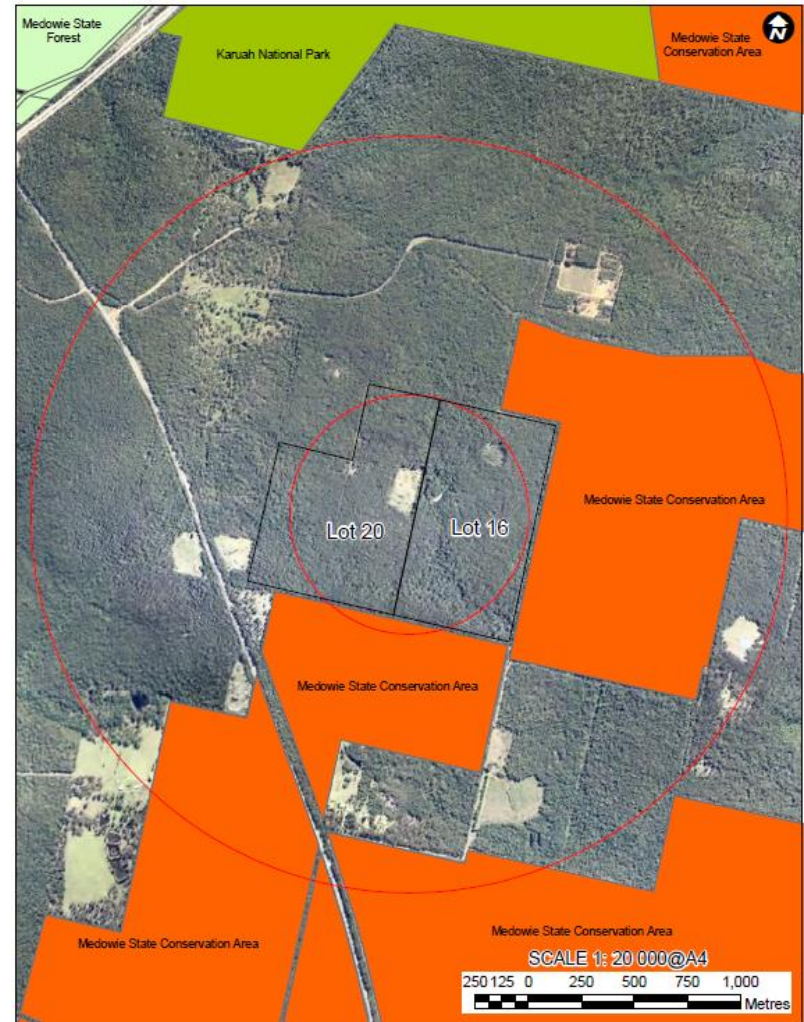


- NGSF Environmental Assessment Ecological Assessment completed in May 2011:
  - 19.3ha of vegetation to be cleared
  - Five native vegetation communities, including 0.64ha of Swamp Mahogany-Paperbark Swamp Forest (endangered)
  - Four Earps Gum (threatened species)
  - Nine threatened Fauna species recorded including Koala, Squirrel Glider, various Bats, and New Holland Mouse
- The EPBC Approval (Commonwealth) and Project Approval (State) required AGL to commit to Biodiversity Offsets to offset the impact to flora and fauna.
- Offsets Strategy developed in consultation with the Office of Environment and Heritage (State) and Department of Sustainability, Water, Environment, Population and Community (Commonwealth)



# Medowie properties

- Two adjoining lots purchased by AGL around 2012
- Off Old Swan Bay Road and Medowie Road, Medowie
- Combined offset area of approximately 113ha
- Two Exclusion areas, 2ha each
- Internal fire trails
- Unoccupied, heavily vegetated, minimal weeds
- Adjoin other land under conservation (State Forest and State Conservation Area)
- High ecological value
  - Koala habitat
  - 11.8ha Swamp Mahogany-Paperbark Swamp Forest (endangered)
  - 17 Fauna species listed under *Threatened Species Conservation Act*
  - 3 Fauna species (incl New Holland Mouse) listed as Vulnerable.



# Conservation Agreements



- Signed by AGL and OEH in 2016
- Attached to the title of the land, no expiry date
- Residential dwelling permitted in each of the Exclusion Areas
- Restricted land use in conservation areas (e.g. no grazing, land clearing, limited vehicle use)
- Ongoing maintenance, monitoring and reporting obligations
- Works completed to date:
  - Weed control
  - Track maintenance
  - Pest management
  - Fire management (uncontrolled)
  - Fencing and signage
  - General rubbish removal
  - Asbestos removal
  - Annual Monitoring and Reporting for 2016-17 and 2017-18

# 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**

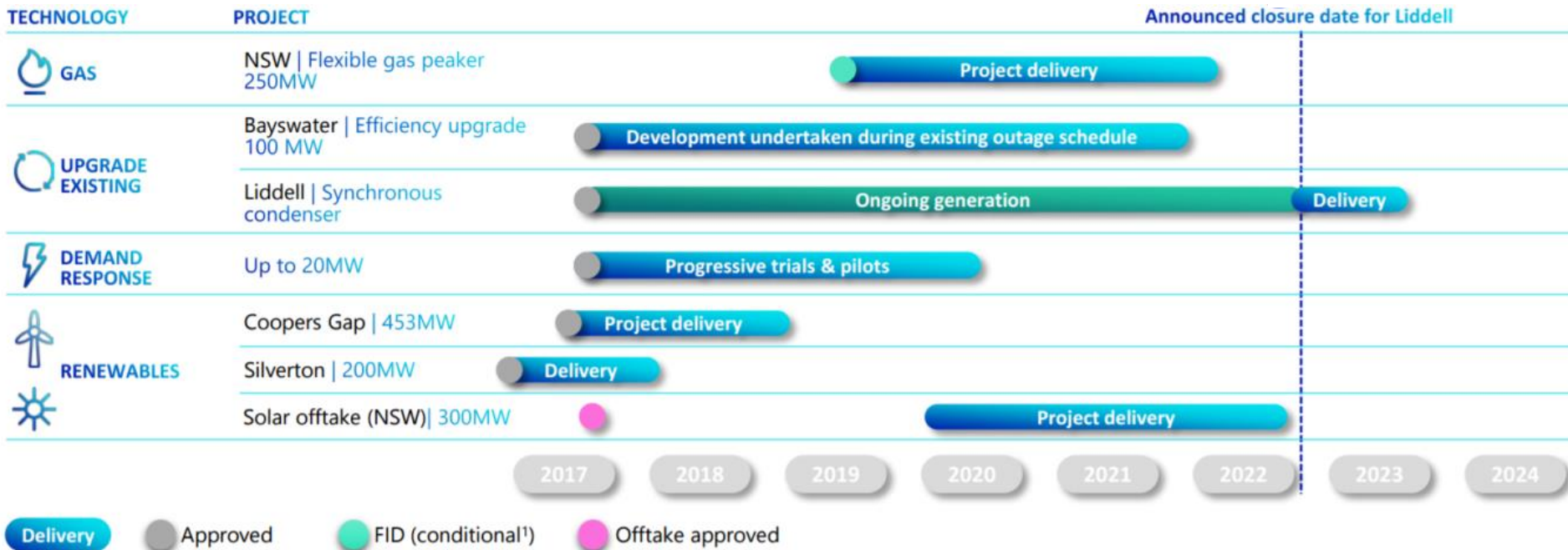
**Levelised cost of energy: \$106/MWh**

**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

## Benefits to NSW and the region



- Improves security of electricity supply to NSW
- Facilitates transition from ageing coal-fired generation post the retirement of Liddell Power Station in 2022
- Proximate to high electricity demand industry in the Newcastle region

- Modernisation of NSW generation fleet will lower carbon intensity
- Fast start dispatchable generation complements intermittent renewables and peak summer demand
- Consistent with the Government's proposed National Energy Guarantee (NEG)

- Represents a substantial capital investment of up to \$400m in NSW
- An estimated 200 new jobs will be created during construction of the power station over 18 months with about half a dozen full time positions once in operation
- A long term development expanding AGL presence in the region

# Newcastle Gas Power Station Project



## Generation Overview

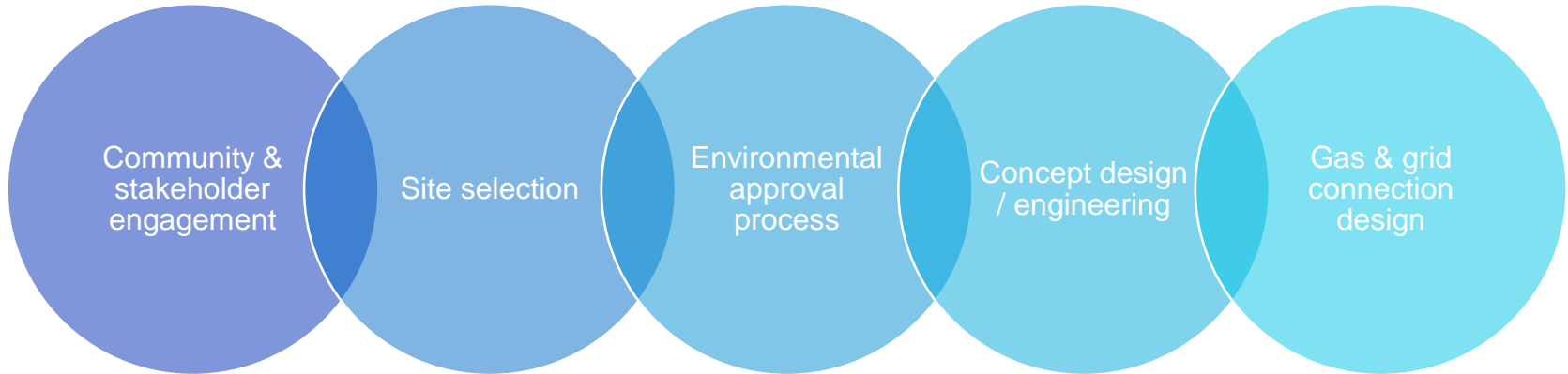
- ~250MW new-build power station
- Reciprocating engines or gas turbines
- Fast start 'peaker' with primary role of providing firming capacity
- Dual fuel – natural gas + diesel
- Gas pipeline connection & diesel storage
- Targeting construction completion in 2022



## Location

- Northern side of the Hunter River (north channel) in the vicinity of AGL's existing LNG storage facility in Tomago
- Preferred site remains to be determined
- Key electricity tie-in point is an existing switch yard (shown above)
- Easements for gas pipelines and electricity transmission will be required

# Near term activity



# General Business

Next meeting and close



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Independent Chairperson

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