



ASX & Media Release

AGL Investor Day

13 December 2017

AGL Energy Limited (AGL) will today host its 2017 Investor Day featuring presentations from members of AGL's Executive Team.

Copies of the presentations are attached and are also available on [AGL's website](#).

The Investor Day will be webcast live from approximately 12.45pm to 2:15pm and approximately 2:45pm to 4:30pm. You can register to view the webcast via AGL's website or this [link](#), or listen in using the following dial-in details:

Dial-in details: Toll-free (Australia) 1800 896 323
Click [here](#) for international dial-in list
Participant code: 8648 365 040

A transcript and archive of the webcast will be available on AGL's website in due course.

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About AGL

AGL is committed to helping shape a sustainable energy future for Australia. We operate the country's largest electricity generation portfolio, we're its largest ASX-listed investor in renewable energy, and we have more than 3.6 million customer accounts. Proudly Australian, with more than 180 years of experience, we have a responsibility to provide sustainable, secure and affordable energy for our customers. Our aim is to prosper in a carbon-constrained world and build customer advocacy as our industry transforms. That's why we have committed to exiting our coal-fired generation by 2050 and why we will continue to develop innovative solutions for our customers.

Investor Day

13 December 2017
Melbourne



Disclaimer and important information



The information in this presentation:

- Is not an offer or recommendation to purchase or subscribe for securities in AGL Energy Limited or to retain any securities currently held.
- Does not take into account the potential and current individual investment objectives or the financial situation of investors; and was prepared with due care and attention and is current at the date of presentation.
- Actual results may materially vary from any forecasts (where applicable) in this presentation.
- Before making or varying any investment in securities in AGL Energy Limited, all investors should consider the appropriateness of that investment in light of their individual investment objectives and financial situation and should seek their own independent professional advice.
- Major expenditure remains subject to standard Board approval processes.

Statutory Profit and Underlying Profit:

- Statutory Profit is prepared in accordance with the Corporations Act 2001 and Australian Accounting Standards, which comply with International Financial Reporting Standards.
- Underlying Profit is Statutory Profit adjusted for significant items and changes in fair value of financial instruments.
- Underlying Profit is presented with reference to the Australian Securities & Investments Commission's Regulatory Guide 230 "Disclosing non-IFRS financial information" issued in December 2011. AGL's policy for reporting Underlying Profit is consistent with this guidance. The Directors have had the consistency of the application of the policy reviewed by the external auditor of AGL Energy Limited.
- Amounts presented as Statutory Profit/(Loss) and Underlying Profit are those amounts attributable to owners of AGL Energy Limited.

Strategy and Business Update

Andy Vesey

Agenda



1200 - 1245	Lunch and booth interaction	1445 -1530	Customer Markets Update Melissa Reynolds, Chief Customer Officer
1245 - 1330	Strategy and Business Update Andy Vesey, Managing Director & CEO	1530 - 1615	Capital Allocation through Transition Brett Redman, Chief Financial Officer
1330 - 1415	Wholesale Markets Update Richard Wrightson, Executive General Manager, Wholesale Markets	1615 - 1630	Closing remarks
1415 - 1445	Afternoon tea and booth interaction	1630 - 1800	Drinks

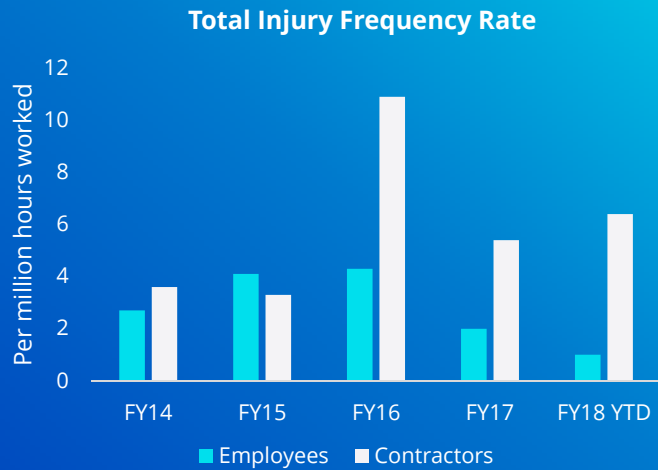
Delivering "safety and beyond"



Safety comes first because physical and mental wellbeing are fundamental to a successful workplace

We create a supportive environment, where we feel safe to challenge the norm, to speak up, to say what we mean

Safety is a shared responsibility – by taking care of each other, AGL becomes a better business for all



Driving gender equality for sustainable performance



TARGETING PAY DISPARITY

AGL gender pay gap analysis to be undertaken twice yearly

Analysis indicates no material gap exists that cannot be explained by experience, location or years of service

Leaders required to consider gender equity relativities during remuneration review process

WOMEN IN SENIOR LEADERSHIP PIPELINE

Up 4 ppts to **38%** in FY17

FY19 target: **40%**

48% of FY17 internal appointments were women

51% of FY17 external appointments were women



We have refreshed AGL's values to support our ongoing transformation

| Safety and beyond

| Sustainable thinking

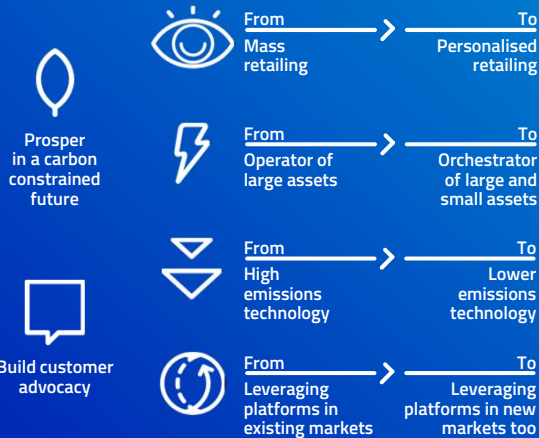
| Inclusive of all

| Focused on what matters

Anticipating and responding to an industry in transition



STRATEGIC IMPERATIVES & KEY OBJECTIVES



FY18 PRIORITY FOCUS AREAS



Liddell replacement is AGL's preferred option compared with 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 (~\$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

Projects to replace Liddell have been staged to adapt to an evolving market

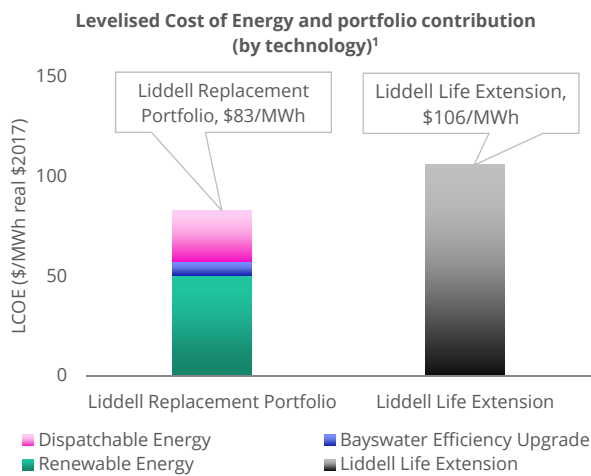


Stage	Description	Projects	Cumulative capex ¹	Cumulative LCOE ²
Approved Projects	Projects are under construction having already achieved Final Investment Decisions	Wind <ul style="list-style-type: none"> - Coopers Gap 453MW - Silverton 200MW 	Committed	\$62/MWh
Stage 1 Feasibility 2019 or earlier ⁴	Stage 1 comprises projects required to balance AGL's committed customer needs consistent with the Government's proposed National Energy Guarantee	Approved in NSW Generation Plan <ul style="list-style-type: none"> - Bayswater upgrade 100MW - Solar offtake (NSW) 300MW - Synchronous condenser Liddell - Demand response up to 20MW Feasibility <ul style="list-style-type: none"> - Newcastle gas peaker³ 250MW 	\$490m	\$76/MWh
Stage 2 Feasibility 2020 ⁴	Stage 1 and 2 comprise projects required to meet AGL's potential uncontracted customer demand (C&I) assuming that other market participants respond to market signals	<ul style="list-style-type: none"> - NSW gas peaker 500MW - Renewables 500MW - Demand response up to 50MW 	Stages 1 and 2 \$1,100m	\$83/MWh
Stage 3 Feasibility 2021 ⁴	Stage 1, 2 and 3 comprise projects required to completely replace Liddell assuming no other market participants respond to the signal for investment	<ul style="list-style-type: none"> - Liddell battery 250MW - Renewables 250MW - Demand response up to 30MW 	Stages 1, 2 and 3 \$1,360m	\$83/MWh

1. Dollars are cumulative on the bundle of assets (Real \$2017, pre-tax). Solar offtake is based on a 300MW, 15 year power purchase agreement. Renewables assets are modelled using wind assets using an off-balance sheet structure like PARF with AGL contributing capital equivalent to a 20% equity share. 2. Levelised cost of energy (LCOE) is the average cost per MWh of production of the cumulative bundle of assets contained within each stage of the NSW generation plan. LCOEs are based on information sourced by AGL. Dollars have been presented in real \$2017, pre-tax. 3. Newcastle gas peaker to be located at Newcastle gas storage facility or another suitable location in NSW. 4. Feasibility will be subject to financial feasibility, planning approval, EPC contract and connection agreement.

Supplementary Information

Liddell replacement delivers a more affordable solution for customers



Weighted levelised cost of energy (LCOE) for an equivalent level of energy production is lower for replacement than for lifetime extension

Liddell replacement portfolio contains equivalent amount of energy and dispatchable power to extension, to deliver a similar level of reliability

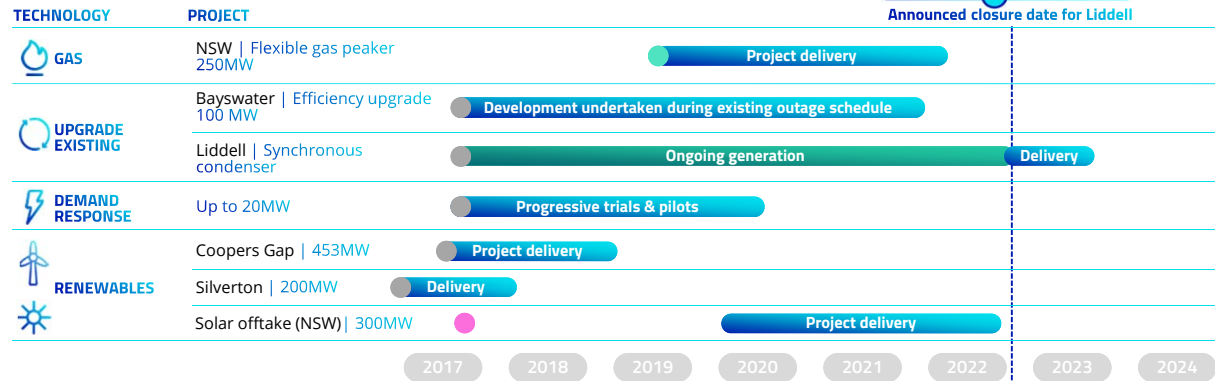
- Energy is sourced predominantly from renewable technologies and upgrades to Bayswater efficiency
- Firming is provided through high-efficiency gas peakers, the Bayswater efficiency upgrade, storage (battery or pumped hydro) and demand response

1. Levelised Cost of Energy based on information sourced by AGL including: the capital cost of the Liddell life extension works as advised by WorleyParsons (Advisian). AGL's discount rate in line with commercial target returns. Westpac Banking Corporation's forecast of the Newcastle coal price discounted based on the lower calorific value required for power station coal. A carbon emissions cost has been included as per AEMO's "Moderate" 2015 scenario. 2. Removal of the cost of carbon from the LCOE has the effect of reducing the Liddell Replacement portfolio to \$82/MWh and the Liddell lifetime extension portfolio to \$92/MWh.

Plan to transform our options into commercial solutions



Stage 1 (feasibility during 2019 or earlier)



Delivery
 Approved
 FID (conditional!)
 Offtake approved

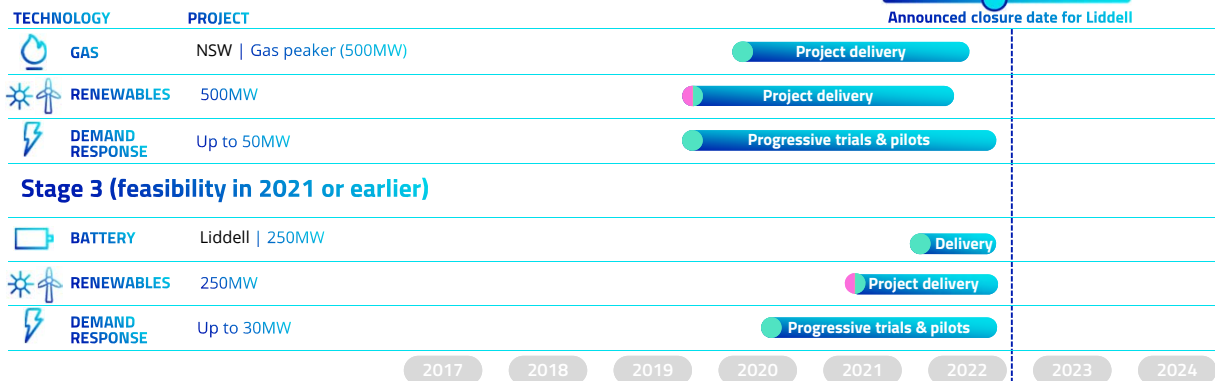
1. Conditional final investment decisions will be subject to planning approval, EPC contract and connection agreement.

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Plan to transform our options into commercial solutions



Stage 2 (feasibility in 2020 or earlier)



AGL is considering the feasibility of pumped hydro assets in New South Wales in Stage 2 & 3

Delivery
 Approved
 FID (conditional!)
 Offtake approved

1. Conditional Final Investment Decisions will be subject to planning approval, EPC contract and connection agreement.

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Wholesale Markets Update

Richard Wrightson

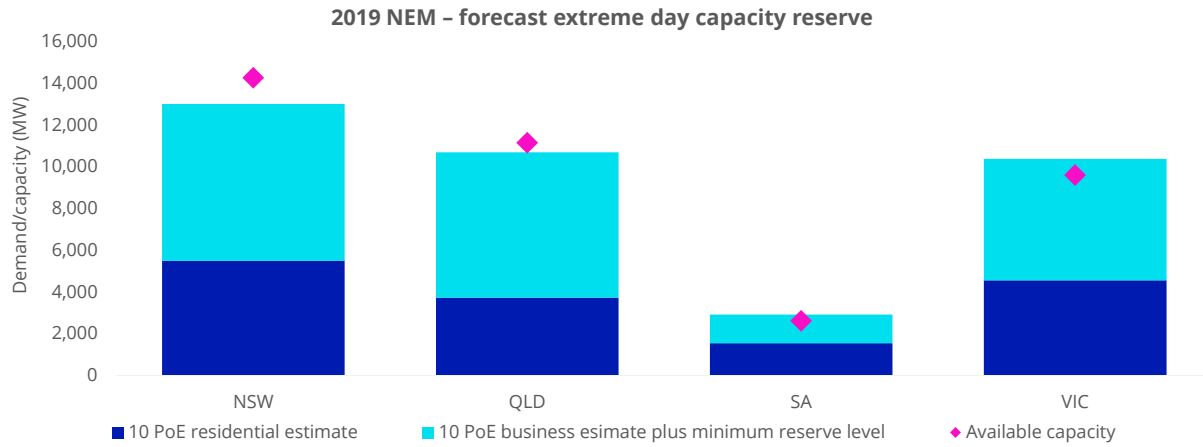
Three key topics of discussion...



- 1 Key market design issues today**
 - National Energy Guarantee
 - Five-minute pricing
- 2 Bringing on new supply**
 - Crib Point LNG import jetty
 - Barker Inlet Power Station,
 - Firming costs
- 3 Longer-term perspective**
 - Grid-scale batteries
 - Distributed energy orchestration

Potential implications of the National Energy Guarantee

The electricity system is relatively well equipped to meet a dispatchability mechanism



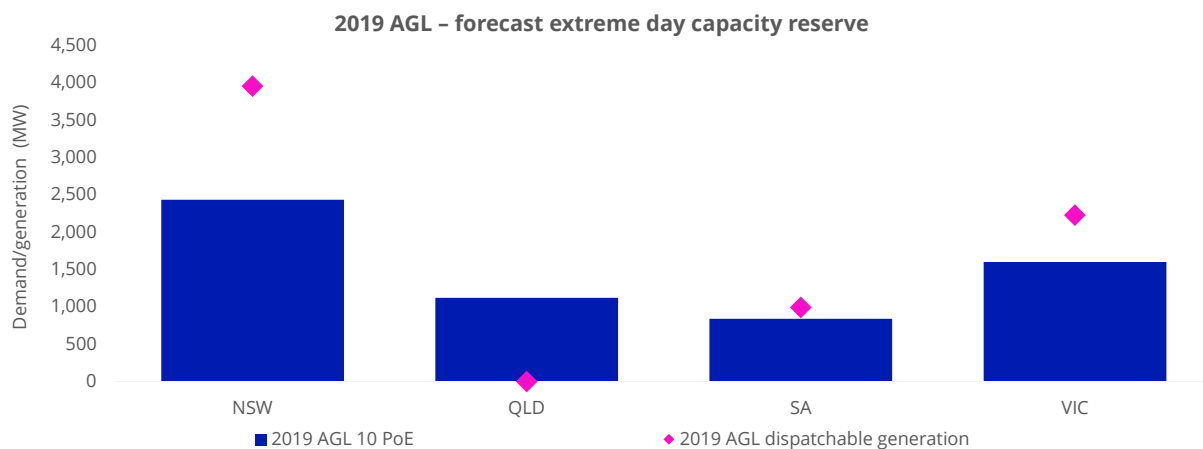
Source: AEMO, AGL; 10 PoE = 10% probability of demand exceeding this number

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Potential implications of the National Energy Guarantee

AGL's positioning relative to a dispatchability mechanism reflects its generation footprint by state



Source: AEMO, AGL; 10 PoE = 10% probability of demand exceeding this number

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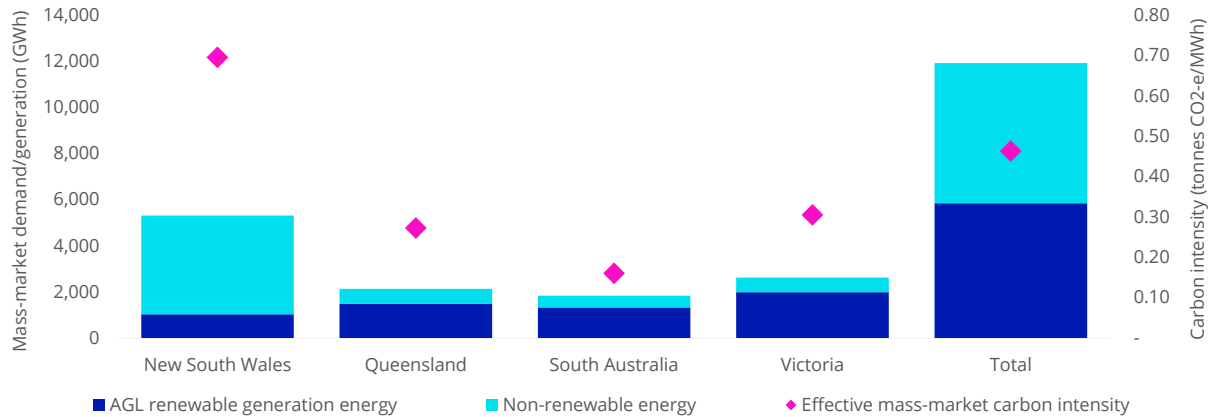
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Potential implications of the National Energy Guarantee

Emissions mechanism will support development of new renewables projects



Estimated AGL emissions intensity for consumer market customers



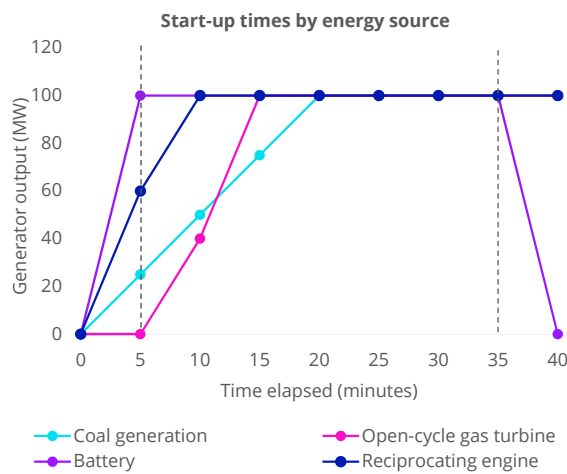
Source: AEMO, AGL; includes Silvertown and Coopers Gap wind farms currently under construction

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Implications of introduction of five-minute pricing rule

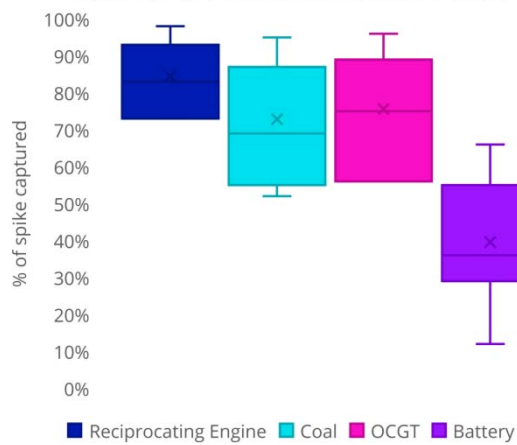
Ability to run for high prices critical to selling insurance products



Source: AEMO for South Australian market data; all other data illustrative

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Capturing high prices: South Australian example



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Crib Point LNG import jetty

Feasibility study under way for FY19 decision

Why it makes sense

- Victorian gas market reliant on production from declining Gippsland basin
- East Coast gas market restricted to four main producers, not all of which are actively selling to other wholesale participants
- Domestic gas being priced at premium to international LNG
- Gas being transported from Queensland to satisfy southern market demands
- Limited financial signals being sent to the domestic gas market

What the impact could be

- Establishment of forward price for gas
- Removal of premium to international markets
- Wholesale competition in the gas market

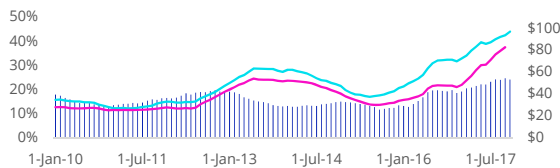


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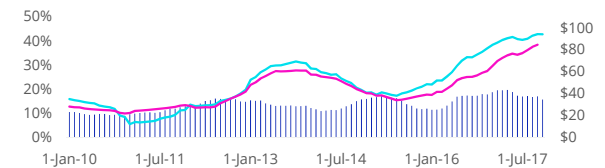
Cost of gas-fired generation continues to set wholesale electricity price



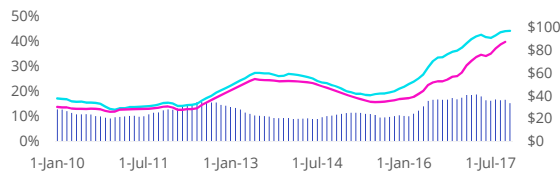
Victoria



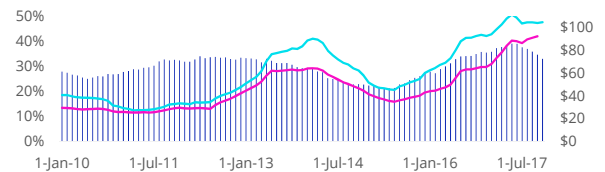
Queensland



New South Wales



South Australia



— Gas price setter (%) — Average pool price (\$/MWh) — Gas setter spot price (\$/MWh)

Source: AGL, AEMO

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Barker Inlet Power Station

Construction set to begin early in 2018 calendar year



- Improved efficiency, reducing AGL total gas usage
- Dual fuel operations driving down fixed cost of gas haulage and swing
- Option to running on diesel caps cost of gas for generation
- Step change in reliability through multiple newer units, improving contracting ability
- Extremely rapid start up times to balance high penetration of renewables in South Australian market
- Reciprocating engine technology is best suited to five-minute market

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Firming costs will become a more critical component of market pricing

Five key considerations go into estimation of costs



1

Diversity of renewable resources

(source and location)

2

Concentration of renewables in state

(e.g. wind in South Australia and solar in Queensland)

3

Flexibility of existing portfolio, including generation and demand-side management

4

Ability to contract insurance products with third parties

5

Development of new assets
(gas peaking plant versus storage)

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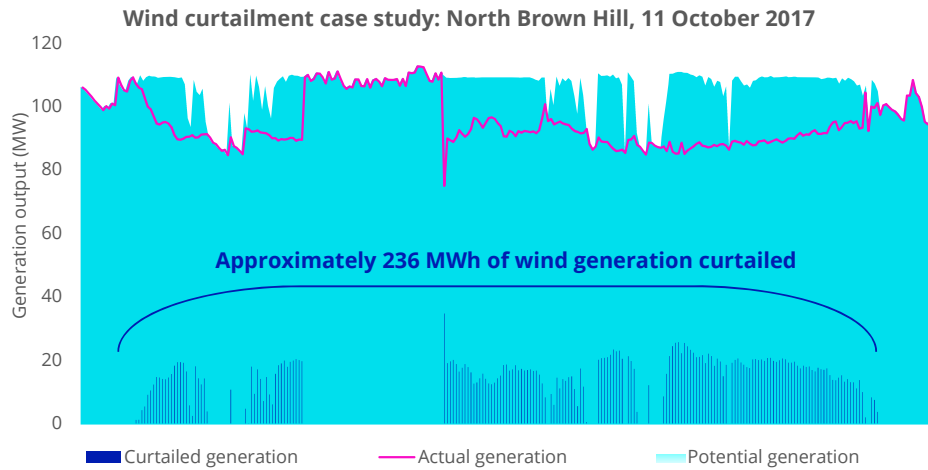
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What does large-scale battery technology mean for the National Electricity Market?



Five potential areas of impact across the system; renewables integration most interesting

- 1 Renewables integration
- 2 Capacity
- 3 Frequency control
- 4 Price arbitrage
- 5 Transmission and distribution



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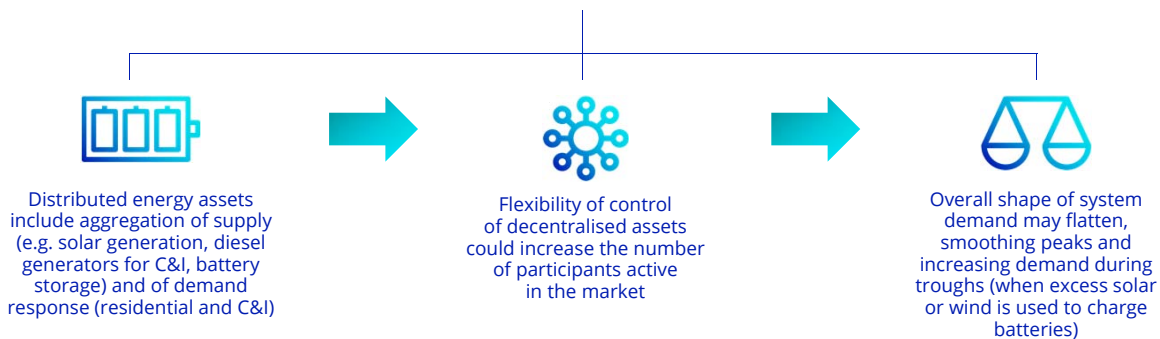
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We are preparing for the integration of small-scale batteries



Virtual Power Plant in South Australia is about leading and learning

Aggregation of distributed energy assets and the dynamics of the NEM



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In conclusion...



1

Our portfolio is well positioned for changes on near-term horizon

2

Key energy supply projects will aid portfolio efficiency and flexibility

3

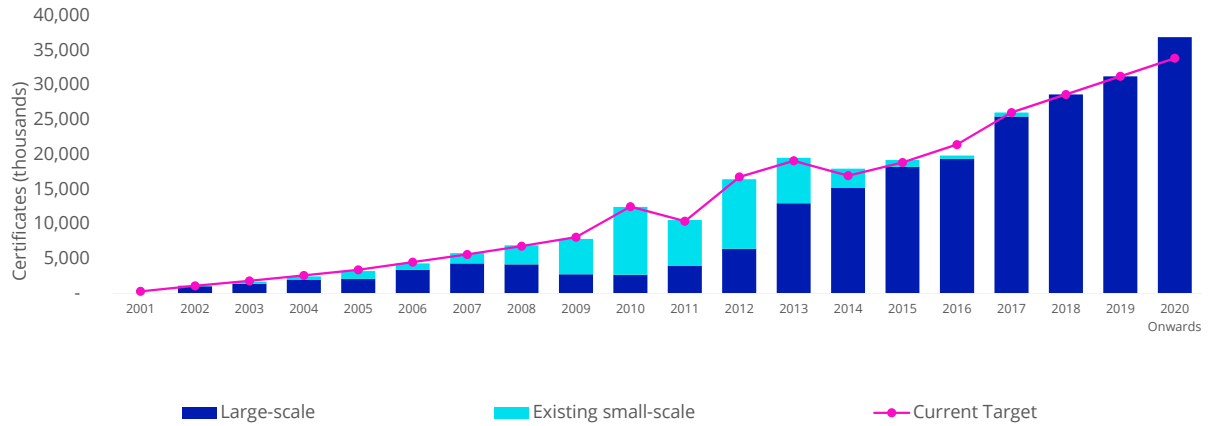
We are making sure we are prepared for the longer-term market transition

Supplementary Information

LRECs: from under-supply to over-supply



Renewable generation certificate surrenders by type: Australia-wide



Source: Clean Energy Regulator, AGL

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Customer Markets Update
Melissa Reynolds

Three key topics of discussion...



- 1 Customer Markets strategy
- 2 Affordability, market context and pricing
- 3 Customer Experience Transformation progress and targets

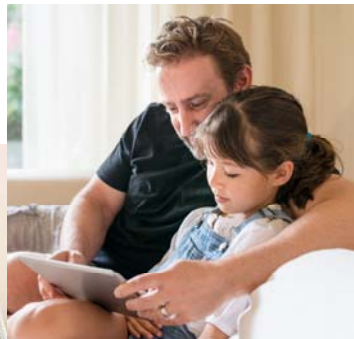


Voice of the Customer

Our customers are at the centre of everything we do



It's important that I'm dealing with a bigger company... It gives me peace of mind



If I were to look in the future, I think service providers would be more focused on the technology side



You want a company that's looking at the present and into the future... thinking about what's next



I would like more energy efficient functionality within my home

Customer Markets strategy aligned to Strategic Imperatives

Build long-term sustainable value by helping customers through an increasingly complex energy market




Prosper
in a carbon
constrained
future


Build
customer
advocacy



Personalised, digital-led customer experiences



Lean, low-cost operations



Innovative products and services



A leading, distinctive customer brand

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Addressing affordability

Fairness, simplicity and transparency are key

- Clear focus on transparency, simplicity and fairness
- Industry-leading Fairer Way package
 - No fees charges to concession and hardship customers
 - More hardship customers with access to exclusive guaranteed discounts
 - More concessions customers on market offers
 - Communication to all standing offer customers
- Over 1.1 million customers accessing loyalty programs
- Reducing bill shock for customers
 - Helping manage budgets through product innovation
 - Providing customer choice in billing and payment options
 - Usage alerts and insights into energy usage



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Intense competition with informed customers accessing better deals

Proactive intervention and rewarding loyalty to defend market share



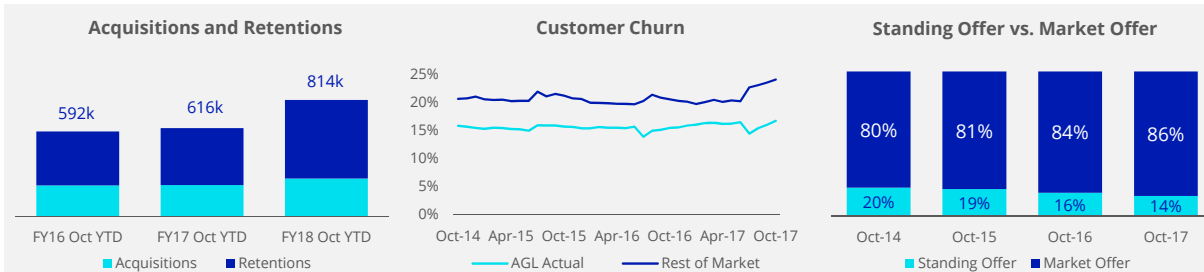
Market activity has driven 32% increase in acquisitions and retentions



Increased churn spread to rest of market to 7ppts from 4ppts



Customers accessing competitive market offers up year on year
Only 14% of customers remain on standing offers



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Customer Experience Transformation

Investing in capability to drive value, productivity and personalised customer experiences



Cultural DNA

- Customer journeys
- Capability streams
- Agile @ Scale
- CX and UX
- Human-centred design

Enabling Technologies



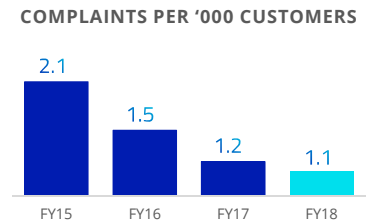
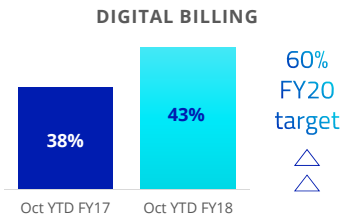
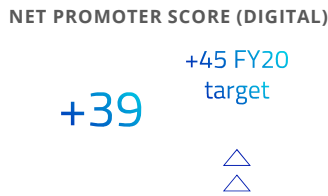
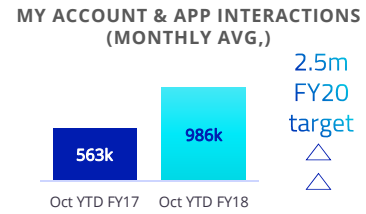
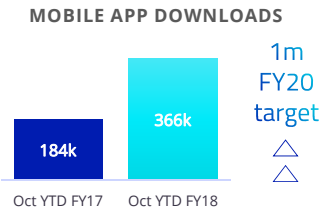
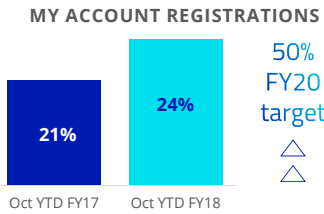
Signature Moments

- Easy Move
- Self-Service Meter Read
- Energy Insights
- One Touch Pay
- Simple Sign-On

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Driving results through digital adoption



Personalised Retailer



Customer Experience Transformation

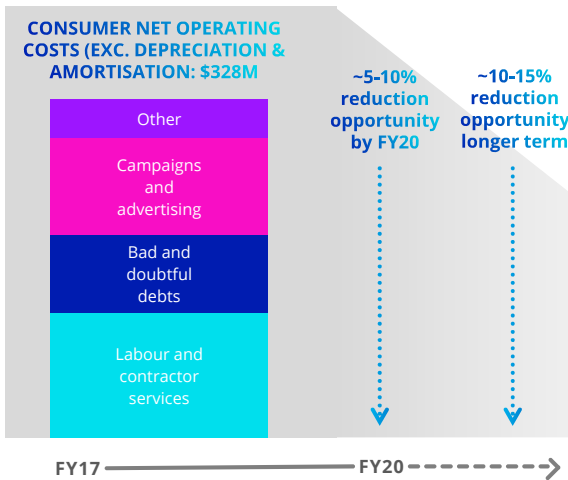


Data Analytics and Insights

Customer Experience Transformation

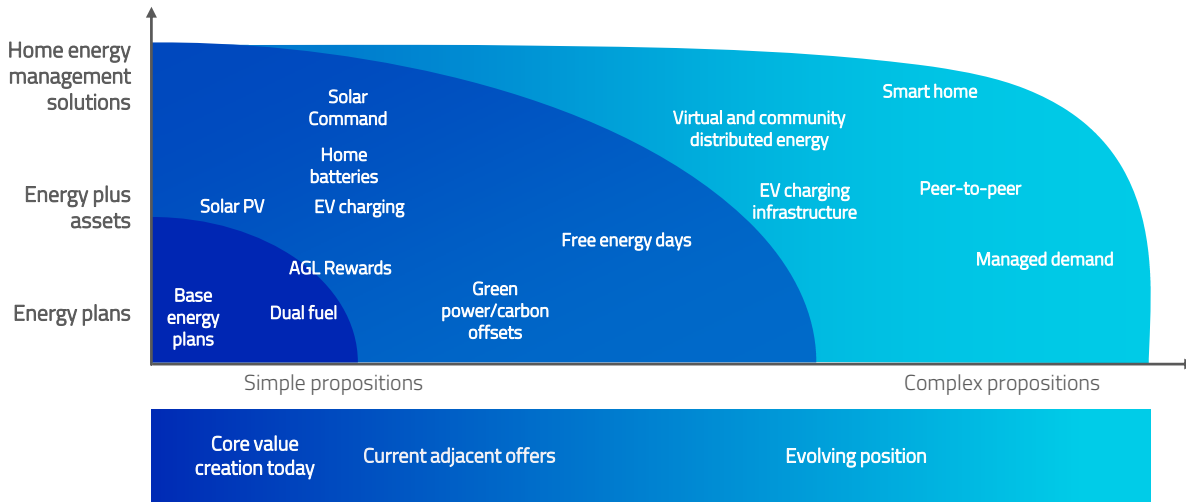


Benefits to net operating costs as productivity improves with digital adoption and self-service



- 60% of calls relate to billing, moving and paying
- Customers with digital ID interact more than non-registered customers
- Digital interactions increase customer awareness, reduce bill shock and drive down call volume
- For example: Easy Move has reduced 15-min call time to 3-min digital experience
- For example: 134k customer meter reads reducing transactions/calls related to estimations
- Digital wallet to drive down payment channel costs (\$6m transacted to date on 36k payments)
- Digital sales and decisioning optimising channel, campaign and advertising costs

Our personalised retailing model will meet the needs of customers today and into the future



In conclusion...



1

Affordability is a key issue: we are addressing it on multiple fronts

2

Technology investment will drive productivity and deliver sustainable margins over time

3

We are defending market share amid unprecedented market activity

4

CXT is delivering digital adoption and great customer experiences

5

We are building brand leadership in the energy sector

Capital Allocation through Transition

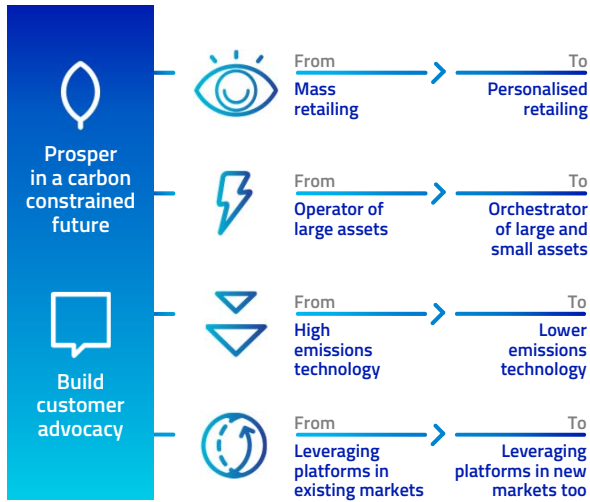
Brett Redman

Three key topics of discussion...



- 1 **Current capital expenditure plans**
- 2 **Scale of potential investment opportunity to FY20**
- 3 **Capital allocation framework and principles**

Strategic imperatives drive capital allocation



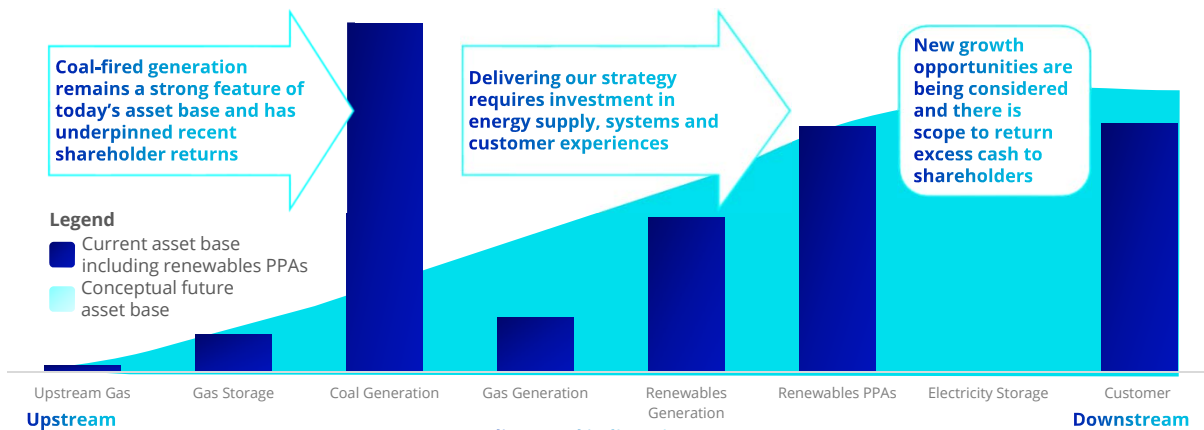
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Strategic imperatives drive capital allocation



Strong cash flow today supports transition to the asset base of the future



Note: Renewables PPAs calculated as net present value of expected future payments; not included on balance sheet

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Strategic imperatives drive capital allocation



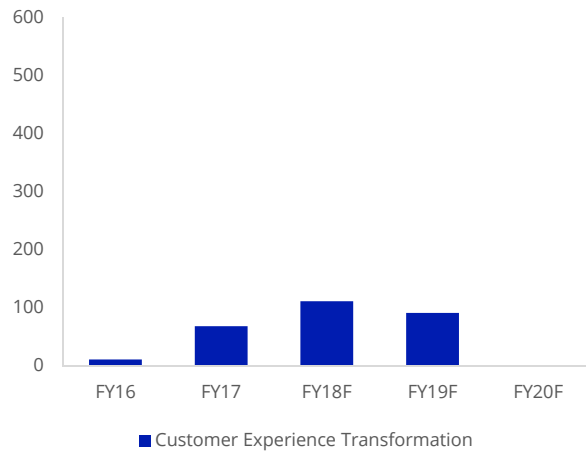
Transformation investments to FY19 to drive returns from FY20 onwards

Prosper in a carbon constrained future

Build customer advocacy



Current investment scope (\$m, approximate)



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Strategic imperatives drive capital allocation



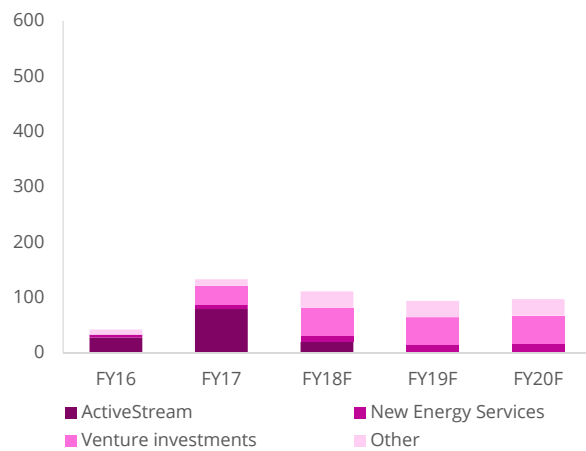
Investment to date primarily focused on smart home and distributed energy investments

Prosper in a carbon constrained future

Build customer advocacy

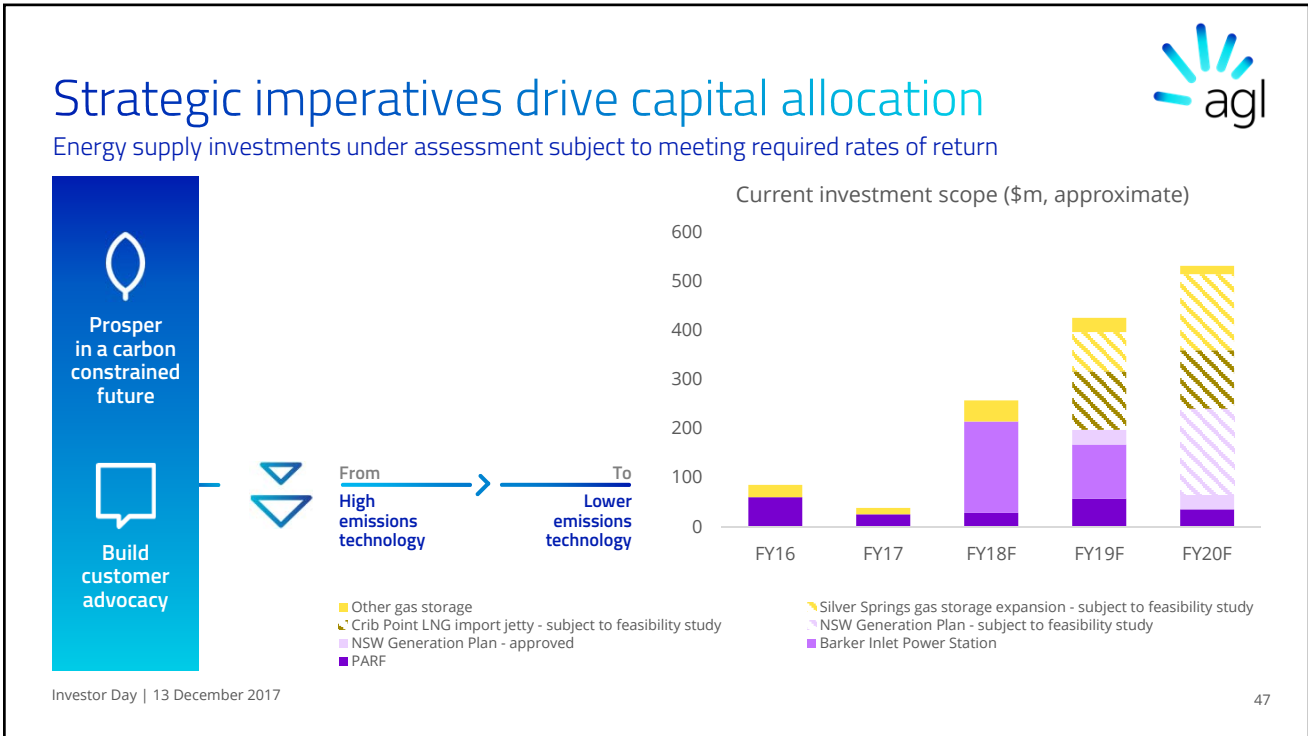


Current investment scope (\$m, approximate)



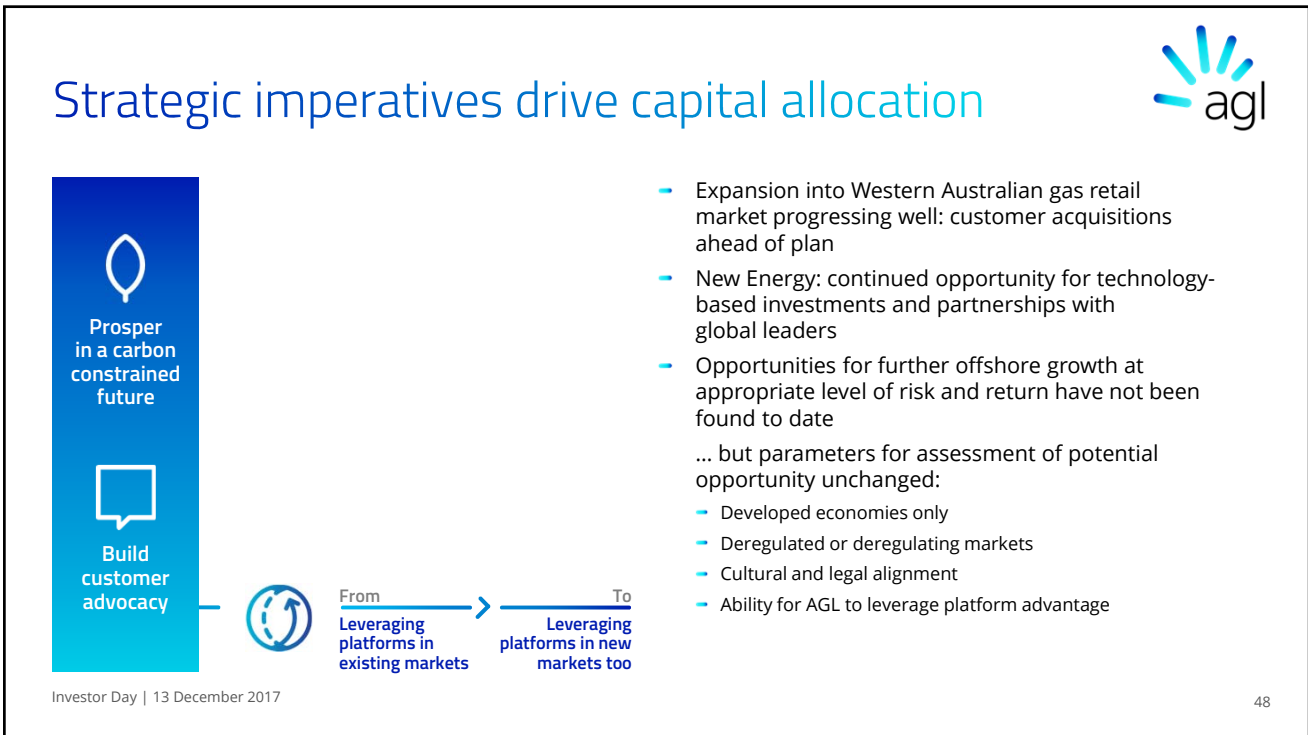
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- Other gas storage
- ▨ Crib Point LNG import jetty - subject to feasibility study
- NSW Generation Plan - approved
- PARF

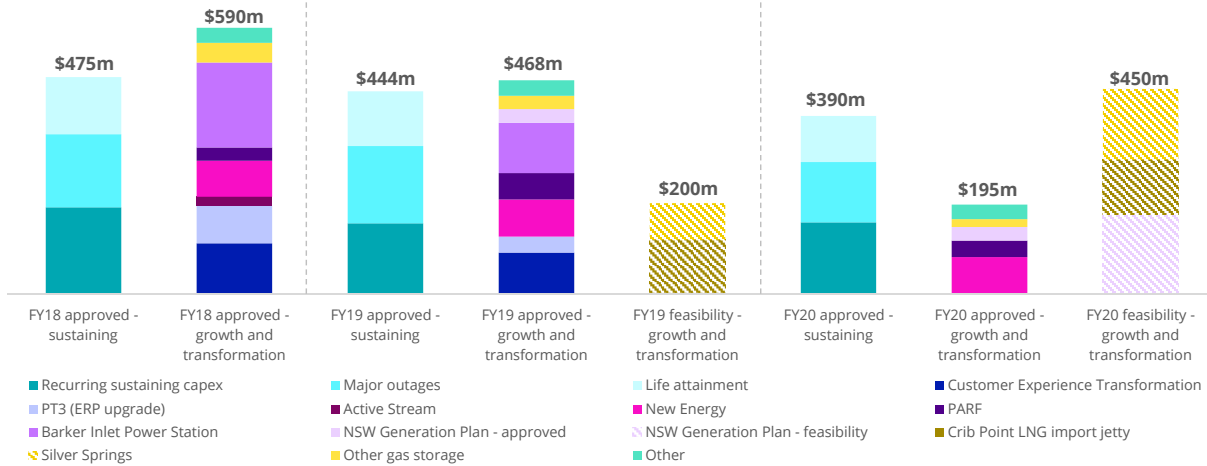
- ▨ Silver Springs gas storage expansion - subject to feasibility study
- ▨ NSW Generation Plan - subject to feasibility study
- Barker Inlet Power Station



Summary of current investment plans



Investment approved or subject to feasibility (approximate, includes capex and equity investments)



Disciplined capital allocation in a transforming market

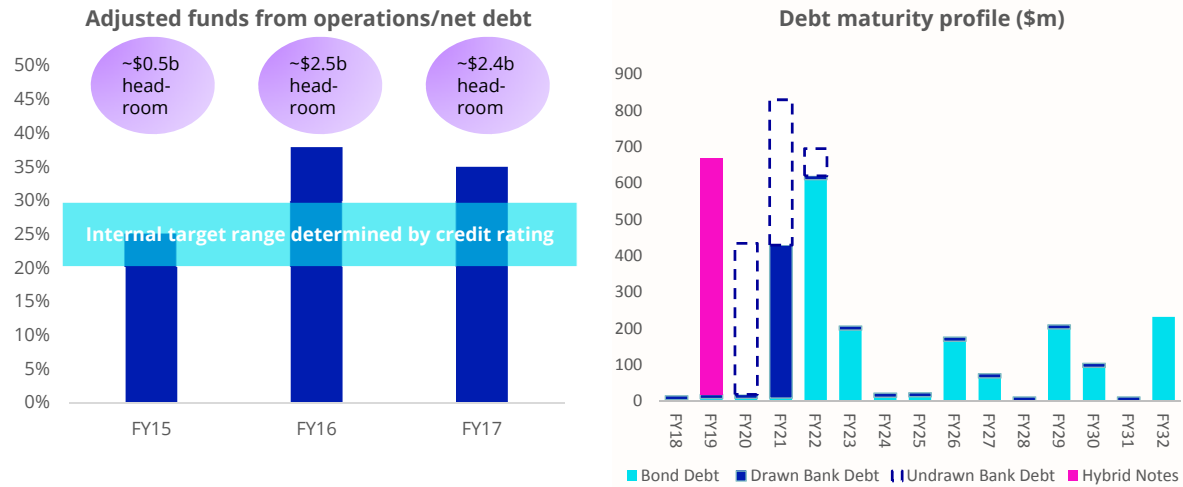


- 1 Maintain balance sheet strength consistent with Baa2 credit rating to enable optimal response to opportunities as they emerge
- 2 Maintain target dividend payout ratio of 75 percent of Underlying Profit after tax, franked to 80 percent
- 3 Agile Capital approach to drive improved return on equity over time amid rapidly evolving business environment...
 - Optionality:** maintain and maximise ability to pivot/exit as objectives evolve
 - Quantum:** AGL capital deployed only to level required to achieve strategic objectives
 - Time to value:** within appropriately short time-frame relative to uncertainty
- 4 Continued application of threshold hurdle rate supported by ongoing analysis of cost of capital and appropriate risk adjustment for competing investment classes
- 5 Return excess cash to shareholders if more accretive opportunities are not identified within reasonable time-frame

Flexibility to fund growth and capital management



Significant headroom remains, with no major re-financing until hybrid call in June 2019



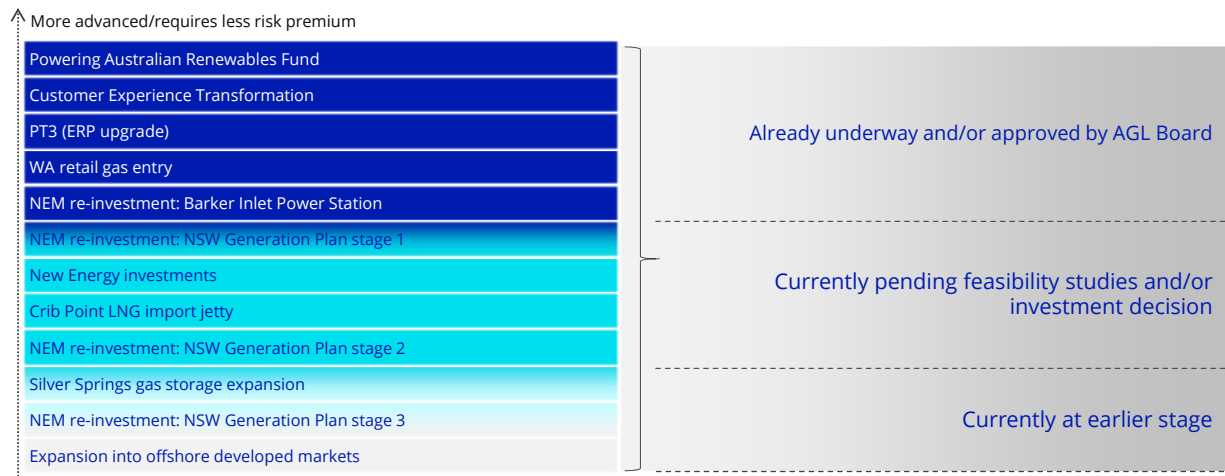
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Broad scope of investment opportunities



Continued assessment and development relative to risk and uncertainty

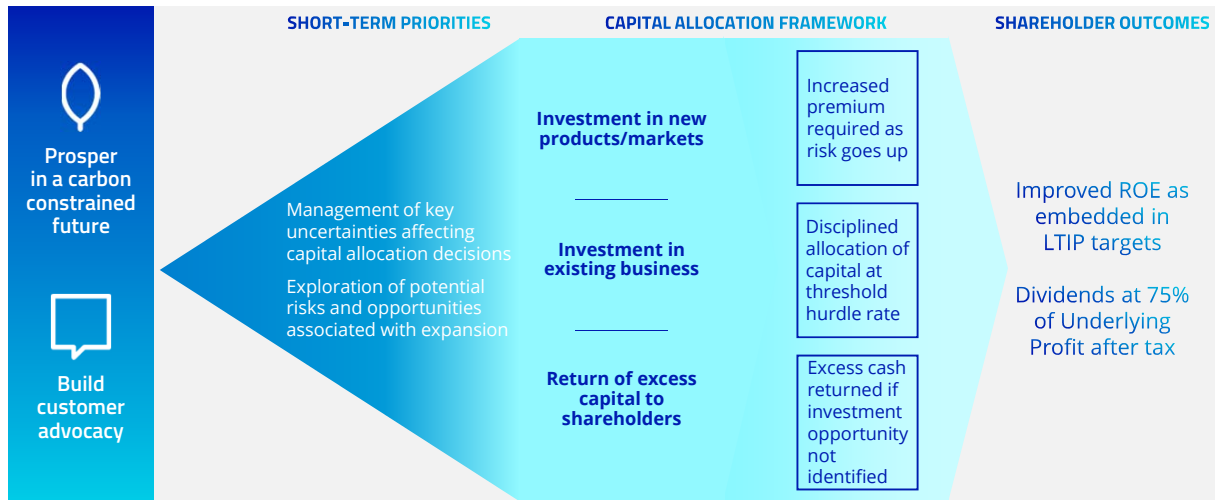


Other opportunities have been assessed and rejected: (e.g. entry into broadband retailing)

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Allocating capital to drive shareholder returns



In conclusion...



Supplementary Information

Guidance unchanged from FY17 result/AGM

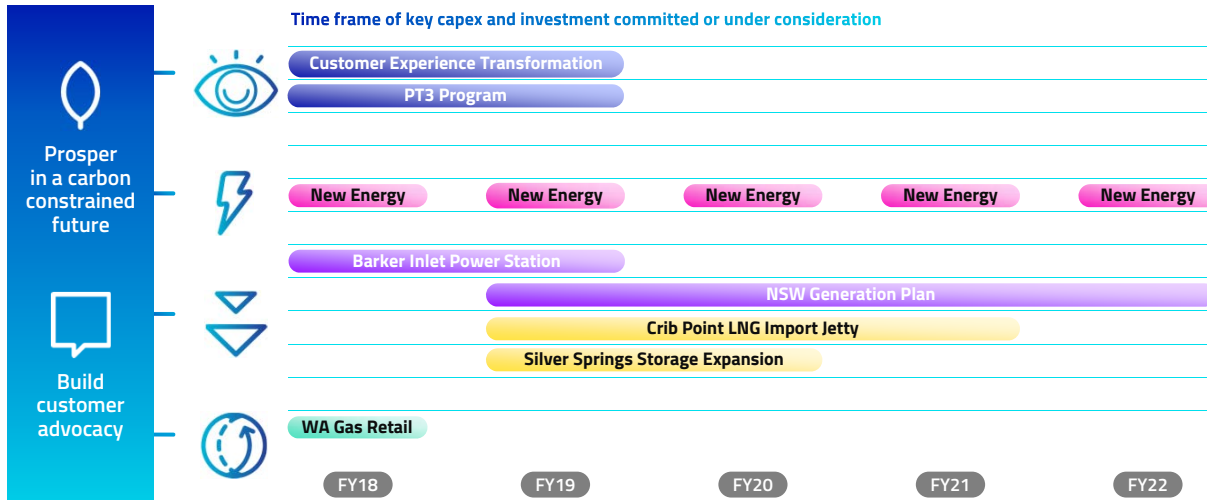
Positioned for further profit growth in FY18



**Underlying Profit after tax
expected to be \$940 million to
\$1,040 million**

- Wholesale Electricity and Gas improvements to outweigh impact of reduced Eco Markets
- Subject to normal trading conditions
- Subject to any adverse impacts arising from policy and regulatory uncertainty

Potential timeframe of capex and investment



Prosper in a carbon constrained future

Build customer advocacy

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