# Climate Transition Action Plan 2025



agl Join the change

### **Contents**

Letter from the Chair and MD & CEO		
CTAP at a glance	4	
Introduction	6	
Our emissions profile	8	
Strong progress to date	10	
Operating environment	13	
Pathway to net zero	17	
Pathway to net zero – Scope 1 and 2 emissions	19	
Pathway to net zero – Scope 3 emissions	24	
Responsible transition	35	
Climate scenario analysis	42	
What we stand for	48	
Financial alignment	52	
Transparent engagement and reporting	56	
Risks to CTAP delivery, glossary & limitations	59	
Appendix: Scenario modelling	64	

#### **Acknowledgement of Country**

AGL recognises the First Nations people as the Traditional Custodians of the lands on which we work, and acknowledges those communities' continuing connections to their lands, waters and cultures. We pay our respects to their Elders, past and present.

#### **About the CTAP**

This Climate Transition Action Plan (CTAP) was published on **13 August 2025**, and has been approved by the AGL Board. The development of the CTAP over FY25 was overseen by a CTAP Steering Committee, which comprised members of AGL's Board and Executive Team.

The ambitions, commitments and targets outlined in this CTAP supersede those made in our former Climate Transition Action Plan released in September 2022 (2022 CTAP).

This CTAP references information published in AGL's 2025 Annual Report, available on our <u>website</u>.

#### Forward-looking statements

Forward-looking statements are based on AGL's current expectations, best estimates and assumptions as at the date of preparation of this document. These forward-looking statements are not guarantees or predictions of future performance, and involve known and unknown risks, which may cause actual results to differ materially from those expressed in this document.

This document should be read in conjunction with the <u>Risks to CTAP delivery</u>, <u>glossary & limitations</u> section on pages <u>59-63</u>.

#### **Targets**

The word 'target' is used in this document to refer to a commitment which is underpinned by plans, meaning we have a higher degree of certainty over the outcome.

#### **Ambitions**

The word 'ambition' is used in this document to refer to an intention to achieve an outcome, where outcomes are less certain or depend more strongly on external factors, and there may not be a specific plan of how this outcome will be achieved.



#### **Dear Shareholders**

We are undertaking a multi-decade decarbonisation of our business to allow AGL to continue to deliver shareholder value into the future and to support our customers through the energy transition.

We are proud to present our 2025 Climate Transition Action Plan (CTAP), which demonstrates our commitment and progress towards achieving our decarbonisation strategy. It outlines how we are setting ourselves up for success, the initiatives we are delivering to connect every customer to a sustainable future and drive electrification, and our policy advocacy priorities that outline the action and regulatory certainty needed to allow AGL, and the broader energy industry, to navigate a clearer and accelerated decarbonisation pathway.

Our 2025 CTAP builds on the ambitious targets and commitments set in our inaugural 2022 CTAP, including our commitment to exit coal-fired generation by the end of FY35, up to a decade earlier than planned prior to our 2022 CTAP.

Our resolve to achieve our ambition of being net zero for Scope 1, 2 and 3 emissions by 2050, in line with Australia's goals to transition to a net zero economy, is unwavering with our focus on the delivery of our strategy.

#### Strong progress on our decarbonisation strategy

We are proud of the progress we have made towards meeting our climate ambitions since our 2022 CTAP, with over \$3 billion deployed or committed towards our decarbonisation strategy.

The safe and respectful closure of Liddell Power Station in April 2023 marked the commencement of our exit from coal-fired power generation, and demonstrated the support and respect we showed our people impacted by the closure.

During the last three years, a key priority has been to grow our renewable and firming development pipeline, which has more than tripled to 9.6 GW since our 2022 CTAP, positioning us well in light of market conditions to prioritise developments that deliver long-term value to shareholders. We have also commenced the transition of our large thermal generation sites into the energy hubs of tomorrow, with the Torrens Battery now providing firming capacity to the grid and the Liddell Battery under construction. We are also investing in the flexibility of our generation and storage portfolio, and have increased our flexible generation capacity to 5.4 GW.

As the energy system decarbonises, our customers are front of mind. We are delivering innovative products and services, like our award-winning *Electrify Now*, that support our customers on their decarbonisation journeys and enable them to share in the benefits of the energy transition. Our significant Retail Transformation investment is also a key step to accelerating our electrification strategy.

#### We're building on our ambitions

We are on track to add 12 GW of new renewable and firming capacity by the end of 2035, powering our customers' demand, and we've increased our interim target to add 6 GW (up from 5 GW) by FY30, of which we're targeting at least 3 GW of grid-scale batteries.

We have charted a pathway to being net zero for Scope 1, 2 and 3 emissions. We have bolstered our interim Scope 1 and 2 emissions reduction targets, prioritising direct emissions reductions, and set a new ambition to reduce our Scope 3 emissions by 60% compared to FY19 levels following the closure of our coal-fired power stations.

Supporting our customers to decarbonise the way they live, move and work is a key component of our Scope 3 pathway.

We are committed to pursuing outcomes that enable our customers to share in the benefits of the energy transition. An example of this is AGL Community Power, which is our commitment to finding innovative ways to share the benefits of the energy transition, including with those who cannot purchase solar and batteries or who may be locked out due to barriers related to home ownership.

We have enhanced our commitment to a responsible transition, with clear principles developed to guide transparent engagement and meaningful support for our workforce, customers and communities as we navigate the transformation of Australia's energy systems together.

#### We're advocating for change

As global climate goals face increasing pressure from geopolitical challenges, sustaining strong and economy-wide national ambition is more important than ever. We're clear on the policy and regulatory settings needed to drive Australia's energy transition and we are committed to working transparently with all our stakeholders to shape them.

#### Driving shareholder value through the transition

Our Board and management team are focused on the delivery and execution of AGL's strategy to provide long term value for our shareholders, our customers, and the community. We are cementing our position as a responsible leader of Australia's energy transition and we invite you to support the decarbonisation commitments outlined in this CTAP via the 'Say on Climate' resolution at our upcoming 2025 Annual General Meeting.

**Miles George** Chair Namian Niek

**Damien Nicks**Managing Director & CEO

# 2025 Climate Transition Action Plan at a glance

**Achieved closure of Liddell Power Station**  **Bayswater Power Station closure** 

2033

2023

**FY24 - FY26** 

**-17%** 

Scope 1 and 2 target<sup>1</sup>

From FY27

-19%

Scope 1 and 2 target<sup>1</sup>

**FY35** 

-52%

Scope 1 and 2 target1

#### Connecting every customer to a sustainable future

We are building on our commitments

Our decarbonisation

journey and

pathway

to net zero

**300 MW** 

Cumulative customer assets installed targeted by **FY27**<sup>3</sup>

2.5 GW

Demand-side flexibility by **FY27**<sup>4</sup>

1m+ EVs5

Forecast to be powered by 2035

We are setting ourselves up for success

#### Our responsible transition

- Individual transition plans for impacted employees
- Transparent community engagement for all operating and proposed projects
- Protections for customers experiencing vulnerability

We have made strong progress to date

**Electrify Now** 

Platform launched, with over 500,000 visits



In commercial solar9



1.49 GW

Decentralised assets under orchestration<sup>10</sup>



**Loy Yang A Power** Station closure

#### Our Scope 3 pathway to net zero

- Decarbonisation of the electricity grid
- Electrification of homes, businesses and vehicles
- ( ) End of brown coal supply following closure of our coal-fired power stations
- Energy affordability through the transition and protection of customers experiencing vulnerability

**FY35** 

Following coal closure

**Net zero** 

Scope 1 and 2 target

Following coal closure

-60%

Scope 3 ambition<sup>2</sup>

By 2050

Net zero

2050

Scope 1, 2 & 3 ambition

Transitioning our energy portfolio

**6 GW** 

New renewable and firming capacity targeted by **FY30**<sup>6</sup>

**3 GW** 

Total grid-scale batteries targeted by **FY30**8

**12 GW** 

New renewable and firming capacity by **2035**7

We plan to deploy

### ~\$10 billion

of balance sheet capital to enable our portfolio transition, supported by robust capital allocation and ESG frameworks

#### Our policy advocacy priorities

Action and regulatory certainty needed in five key areas:

- Drive electrification
- Support affordability
- Promote investment and market stability
- Streamline connections and approvals
- Develop a new sustainable economy



1.2 GW

New renewable and firming capacity in development, contracted or in delivery6



8.3 GW

Flexible fleet capacity<sup>11</sup>



9.6 GW

Development pipeline<sup>12</sup>

- Reduction in gross Scope 1 and 2 emissions compared to FY19 baseline.
   Ambition to reduce gross Scope 3 emissions compared to FY19 baseline,
- from the first financial year following closure of our coal-fired power stations.
- Installations completed from FY24 FY27 inclusive.
- Ambition for the capacity that can respond to AGL-initiated signals to orchestrate assets and the customer-led capacity that may respond to AGL's incentives to time-shift electricity or asset use.
- 5. Forecast only; 2035 outcome will be subject to customer uptake.
- Ambition for new renewable and firming capacity from FY23 onwards.
- This also includes consumer energy resources.

  Total grid-scale batteries operated, contracted or in delivery.
- AGL is ranked #1 for commercial solar market share per 2025 SunWiz Annual PV Market Report, 15+ kW (January 2025).
- 10. Refers to the aggregation of flexible load and generation assets managed as a part of AGL's virtual power plant. This includes smelters



#### We provide

#### 4.56 million

services to customers across Australia<sup>1</sup>

We employ over

## **4,300 people** across our corporate offices

and in regional areas<sup>2</sup>

We delivered over

#### 31.2 TWh

in FY25, equating to over 15% of total **NEM** generation

We operate

#### 7,928 MW

of generation assets, including 1,713 MW of renewable energy assets

Our portfolio includes

#### 5.4 GW

of flexible generation capacity

We have a development pipeline of

#### 9.6 GW

of potential new renewable and firming projects at various stages of development

We take our decarbonisation responsibilities seriously and recognise the significant role we can play in helping Australia reach its climate commitments.

- 1. Includes energy, telecommunications and Netflix customer services.
- 2. On a full-time equivalent (FTE) basis.

## Introduction

#### **About AGL**

Proudly Australian for more than 187 years, AGL supplies energy and other essential services to residential, small and large businesses and wholesale customers. AGL is committed to providing our customers with simple, fair and accessible services as they decarbonise and electrify the way they live, move and work.

AGL operates the largest private electricity generation portfolio in Australia. Our operational portfolio comprises coal-fired generation, renewable generation sources such as wind, hydro and solar, electricity storage and firming technologies including batteries and gaspowered generation, and gas storage assets. We are building on our history as one of Australia's leading private investors in the construction of renewable energy projects and owner of the largest privately owned fleet of hydro assets in Australia, to be a leader in the transition to a lower emissions and smart energy future.

#### Decarbonisation at the heart of our strategy

Australia's energy system is undergoing a significant transformation, shifting from a system that is heavily reliant on coal-fired power stations to a system comprised of a mix of grid-scale renewable generation technologies supported by storage and firming, along with decentralised consumer energy resources (CER). The move towards low-emissions energy sources and the continued development of new customer-centric technologies are driving a structural and economic shift in energy markets, and in the way that energy is produced and consumed.

AGL is committed to contributing to Australia's decarbonisation journey by connecting every customer to a sustainable future and transitioning our energy portfolio. Our strategy also aims to balance energy affordability, system reliability and security while adapting to the evolving needs of our customers and communities.



# Connecting every customer to a sustainable future: As the energy transition accelerates, our strategy is focused on connecting every customer.

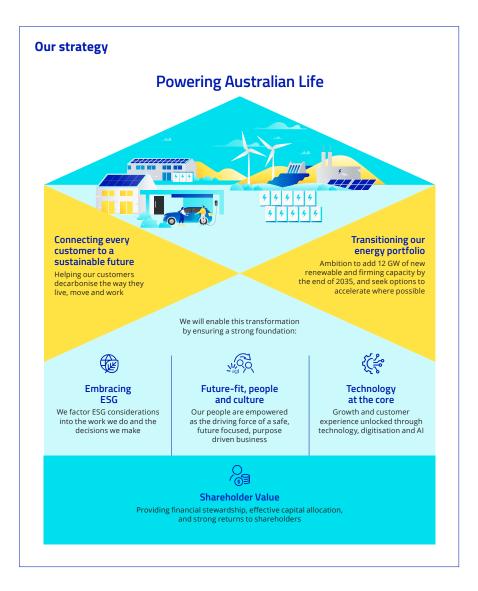
transition accelerates, our strategy is focused on connecting every customer to a sustainable future, meeting their changing needs today and tomorrow. We are enhancing our capabilities in electrification and decarbonisation solutions to support our customers, and working toward a reliable, cost-efficient energy transition that leads to a net zero future.

#### Transitioning our energy portfolio:

As we phase out our coal-fired power stations, we aim to add 12 GW of new renewable and firming capacity by the end of 2035, making efforts to accelerate this transition where possible. The reliable performance of our coal-fired power stations, along with the flexibility of our portfolio, will continue to play a key role in providing energy for our customers during the energy transition.

Our goals are supported by three foundational strategic pillars: embracing ESG, fostering a future-fit culture and workforce, and leveraging technology at the core of our business.

We aim to maximise opportunities to create value for our customers, shareholders, and other stakeholders through the energy transition. With a strong and ambitious strategy, our focus is now on execution and delivery.



#### About the CTAP

AGL's inaugural Climate Transition Action Plan (2022 CTAP) was released on 29 September 2022, outlining the decarbonisation goals set as part of AGL's updated strategy. Shareholders had the opportunity to vote on the 2022 CTAP via the 'Say on Climate' resolution at our 2022 Annual General Meeting, with the majority supporting the plan.

This second CTAP continues our track record of transparently communicating with our stakeholders about our decarbonisation approach. It outlines our ambitions, commitments and targets for the short (1-4 years), medium (5-10 years) and long (10+ years) term. The CTAP also provides market context to our decarbonisation commitments and broader strategy.

This CTAP is in place for the FY26-FY28 period. AGL expects to release updated plans in 2028, alongside our FY28 full-year financial results. In the event of material changes to AGL's strategy or operating environment during this period, AGL may choose to publish updated plans in advance of this date.

#### Related disclosures

While this CTAP sets out our decarbonisation strategy, further information on how AGL manages climate-related risks and opportunities, governance, strategy, and metrics and targets relevant to the FY25 reporting year is available in the following documents:

- <u>2025 Annual Report</u>: Includes disclosures with reference to the Australian Accounting Standards Board (AASB) S2 Climaterelated disclosures.
- <u>FY25 ESG Data Centre</u>: Includes FY25 and historical performance data across a broad range of metrics.

An index of further information is available on page 62.

#### **External references**

In preparing this document we have used the following publications as a guide to inform our disclosure: Climate Action 100+ Net Zero Company Benchmark, IGCC's Corporate Climate Transition Plans guide, Climate Leaders Coalition's Credible Transition to Net Zero and Transition Plan Taskforce's Disclosure Framework. We have also relied on third party data, including AEMO's ISP and GSOO, as noted in the text.

## Our emissions profile

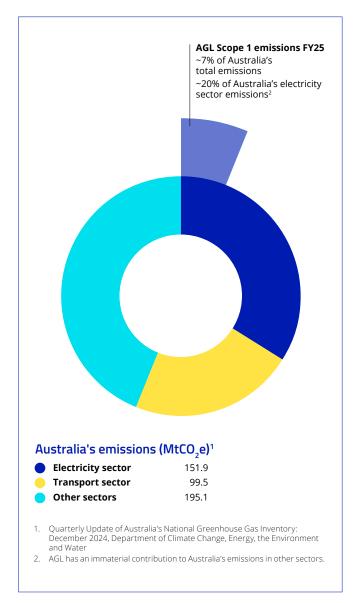
AGL operates the largest private electricity generation portfolio in Australia. The operation of this portfolio, which includes two coal-fired power stations, makes AGL Australia's largest corporate greenhouse gas emitter, and we recognise both the responsibility and opportunities that this presents to lead the country's energy transition.

The electricity sector currently contributes around one third of Australia's total greenhouse gas emissions and has a critical role to play in decarbonising Australia's economy through the inevitable closure of ageing coal-fired power stations and delivery of a rebuilt power system based on renewables and firming, and through the electrification of other sectors.

In FY25 AGL's operated Scope 1 and 2 emissions contributed around 20% of emissions from Australia's electricity sector, and approximately 7% of Australia's total emissions¹. AGL has a key role to play in Australia's energy transition. By delivering on our strategy through our energy portfolio transition commitments, and supporting customers to decarbonise, we are making good progress toward delivering on one of Australia's largest corporate decarbonisation initiatives.

Over 95% of AGL's Scope 1 and 2 emissions arise from the combustion of coal at our Bayswater and Loy Yang A power stations to generate electricity for our customers and other energy consumers in the NEM.

Our Scope 3 emissions arise from our value chain outside of our direct operations. They predominantly comprise emissions arising from the combustion of brown coal sold by AGL to the Loy Yang B Power Station, as well as emissions associated with the supply of electricity and gas to our customers. In FY25, our Scope 3 emissions represented approximately 45% of our total Scope 1, 2 and 3 emissions.

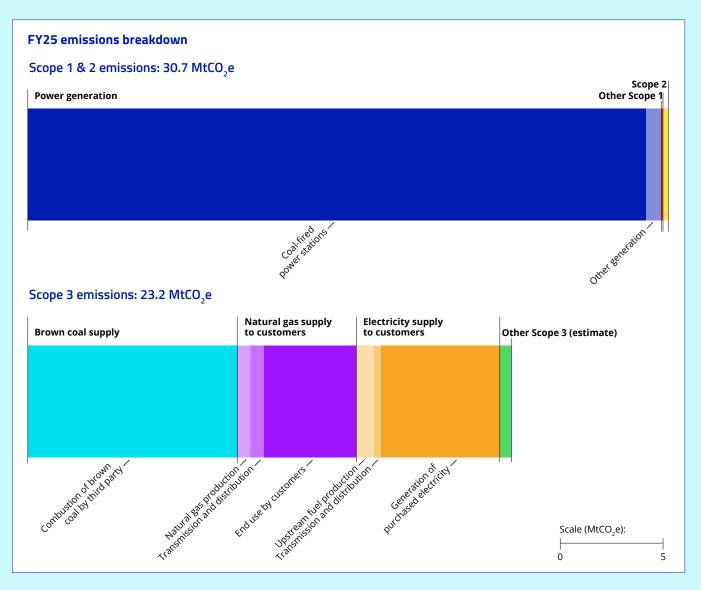


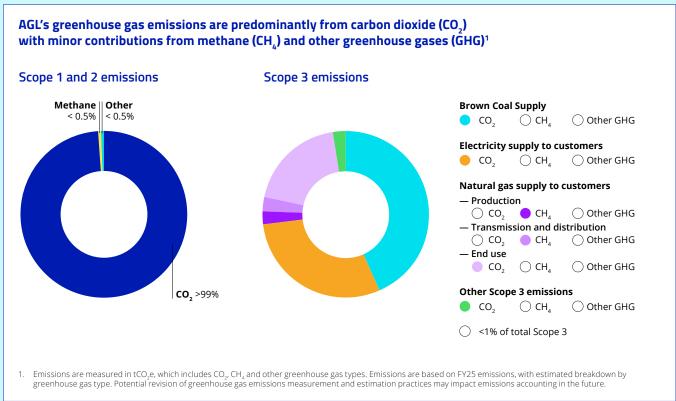
# How our Scope 1 emissions from electricity generation and our Scope 3 electricity supply emissions interact

AGL's Scope 3 emissions from electricity supplied to customers largely arise from electricity we source from the electricity market to meet customer demand when the generation from our operated power stations does not cover our customer demand. As we transition our energy portfolio and reduce the Scope 1 emissions from our operated generation portfolio, we expect to increase the proportion of electricity that we source from the market, including contracted electricity volumes, which may increase our Scope 3 emissions in the short term. Continued uptake of behind the meter assets and energy efficiency improvements may help to offset some demand growth. Over time the sector-wide transition to a decarbonised grid will drive a reduction in our Scope 3 electricity supply emissions.

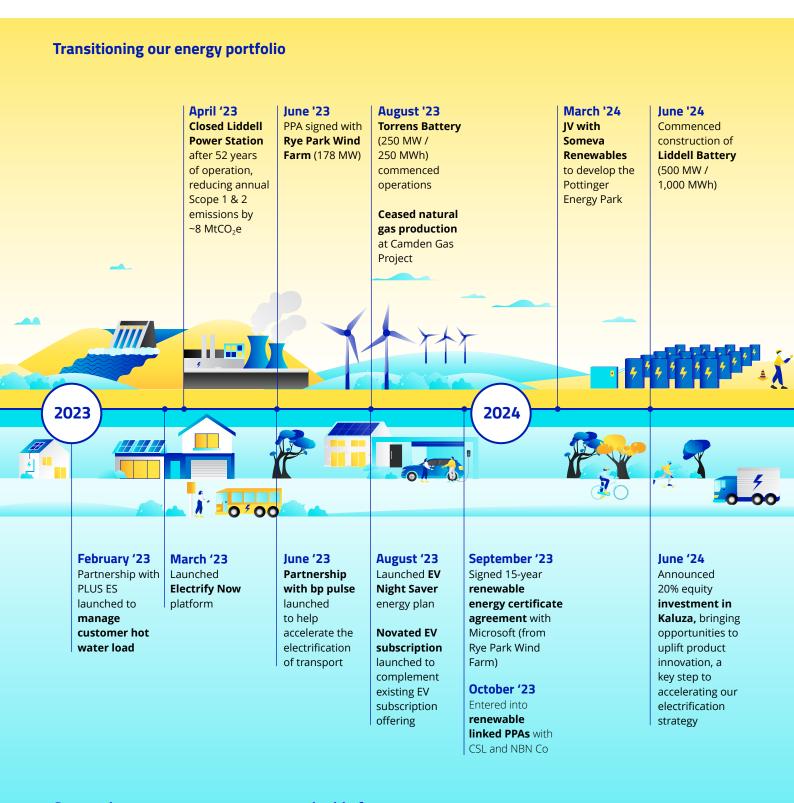
Increased demand driven by our customers electrifying their homes and businesses and charging their electric vehicles may increase our Scope 3 emissions in the near-term. However, electric vehicle uptake will provide emissions reduction benefits to the broader economy by reducing greenhouse gas emissions from the use of fossil fuels in the transport sector.

1. Based on data from the Quarterly Update of Australia's National Greenhouse Gas Inventory: December 2024, Department of Climate Change, Energy, the Environment and Water.



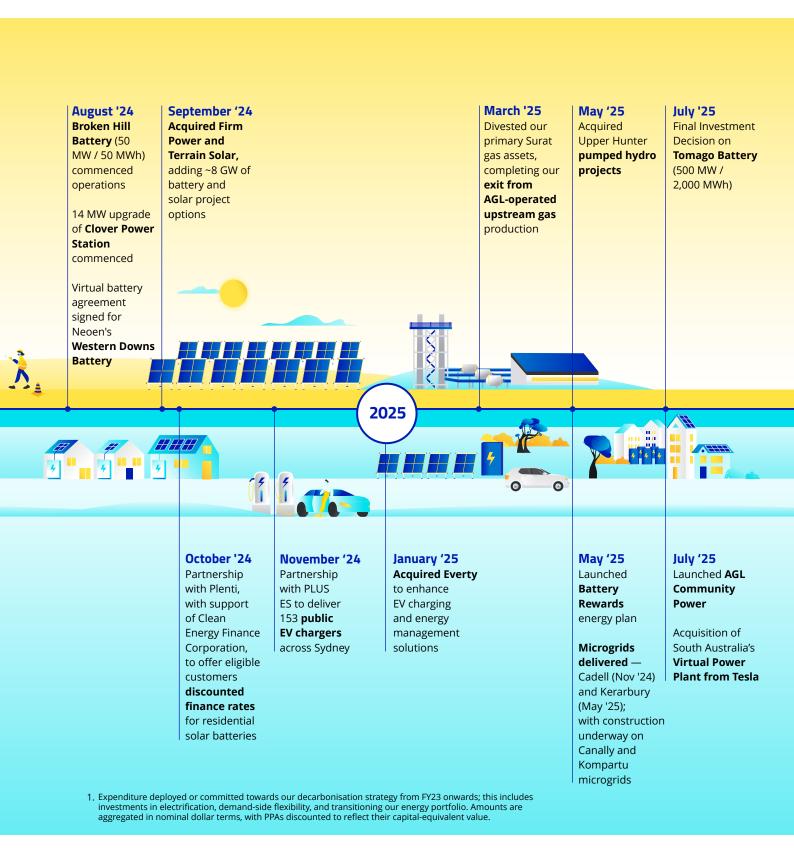


# We are making strong progress towards a sustainable energy future



#### Connecting every customer to a sustainable future

We are delivering on our strategy of transitioning our energy portfolio and connecting every customer to a sustainable future. Over the past three years we have made strong progress with over \$3 billion<sup>1</sup> deployed or committed toward our decarbonisation strategy.



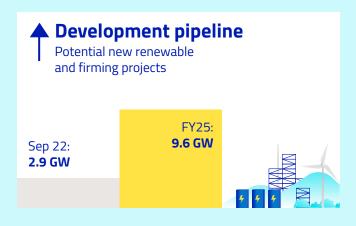
# We've made major progress toward our decarbonisation strategy

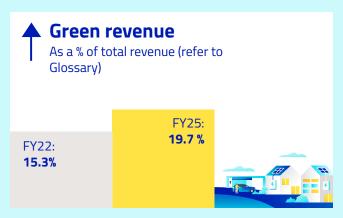














# Operating environment

Addressing the challenges and harnessing the opportunities from decarbonising Australia's energy system.



# AGL strongly supports Australia's goal to achieve net zero emissions by 2050.

A coordinated approach to achieving net zero will foster economic growth and productivity, create new jobs and industries, and attract sustainable investment in Australia. Contributions from all sectors of the Australian economy will be needed to deliver on this goal and meet more ambitious interim climate targets.

Decarbonising the electricity sector, which accounts for about one third of Australia's emissions, is making a significant contribution to meeting Australia's climate commitments, while supporting emissions reductions in other sectors.

As shown on page  $\underline{16}$ , strong collaboration and collective action by industry, governments and regulators across all parts of the energy supply chain are key to the successful achievement of a responsible energy transition that considers the needs of customers, communities and the workforce.

# Replacing existing energy infrastructure with more modern, flexible, and distributed low-carbon resources

As coal-fired power stations are phased out of the NEM, additional renewable generation capacity will be required, supported by firming technologies including batteries, hydro, pumped hydro, and gaspowered generation, as well as consumer energy resources (CER).

### CER will have a more important role in the future energy system

The energy transition is providing new opportunities for customers to interact with the energy system. Rooftop solar, batteries, electric vehicles and controlled loads (e.g. hot water systems) are forecast to play a significant role in meeting the future energy needs of homes and businesses, and in the future composition of the NEM.¹ Large energy customers and grid-scale integrated resource providers will utilise new technologies to support efficient delivery of energy and services

- CER uptake and orchestration: When orchestrated effectively, CER can deliver benefits to individual customers and support grid stability, enabling increasing levels of renewable generation to enter the market. A simplified regulatory framework that puts customer choice and competition at the centre of CER deployment will drive innovation in products and services, enabling more customers to access value from their investments.
- Energy efficiency and productivity: Regulation and incentives should continue to support steps to improve the energy efficiency of buildings and appliances, which can contribute significantly to reducing energy demand and meeting emissions reduction targets.
- Demand response: New technologies and incentives including meaningful tariff reform will act to support load-shifting and facilitate greater engagement between customers and energy providers, driving the uptake of useful products and services for customers.

### A well-coordinated transition will be more successful and support acceleration towards net zero

A responsible and orderly transition for the electricity sector is crucial for maintaining energy security, reliability, and affordability for customers as the energy system decarbonises.

- Coordinated retirement of coal-fired power stations and delivery of replacement capacity: The retirement of Australia's coal-fired power stations must be signalled well in advance to support timely investment in replacement generation, engagement with impacted workers and local communities, and consideration of options for site transition, rehabilitation and repurposing.
- Engineering challenges and system security: The electricity
  grid must address significant engineering, technical, and market
  barriers to continue to meet security and reliability needs, as
  it transforms to accommodate a different technology mix and
  different modes of operation.
- Long-duration storage and gas-powered generation: In the
  transition to a renewable energy system, long-duration storage
  and firming, including gas-powered generation, will support grid
  reliability as coal-fired power stations close. Long-duration storage
  and firming can also support the accelerated decarbonisation
  of the electricity system, however gas-powered generation will
  generate emissions that must be considered in defining and
  realising the path to decarbonise the energy system.

# Attracting investment and delivering the energy transition through effective markets and support for new projects

Global cooperation to act on climate change and the deployment of global capital to support investment in the energy transition remains strong, despite global policy uncertainty, geopolitical instability and the risk of escalating trade disputes.

- Market settings and supportive investment environment:
   Across the energy market there is a strong pipeline of new renewable and firming projects under consideration<sup>2</sup>. With a favourable investment environment comprising the right market settings and long-term policy certainty, global and domestic capital can be deployed to support Australia's energy transition. Reform programs (including the Independent Review of Wholesale Market Settings in the NEM (Nelson Review)) are currently underway to recommend reforms so that the right type and amount of generation, storage and transmission infrastructure is incentivised and delivered.
- Improved infrastructure delivery: While system planning frameworks such as the Integrated System Plan (ISP) have provided a pathway for the energy transition, investment in critical energy infrastructure (including transmission and distribution networks, generation assets and other supporting infrastructure and systems) remains challenging because of complex planning and approvals processes and ongoing policy uncertainty.

- 1. AEMO 2024 Integrated System Plan. For example, orchestrated batteries are expected to provide the majority of the NEM's storage capacity by 2050.
- 2. For example, the first auction of the federal government's Capacity Investment Scheme, in mid-2024, received more than 40 GW of project registrations.

 Project delivery challenges: Additional non-market risks that need to be addressed to keep the energy transition on track include unlocking supply chain constraints for materials and critical components, access to a skilled workforce, and complementary infrastructure development across other sectors including transport, IT and logistics.

#### Delivering for customers, communities and the workforce through the energy transition

The energy transition presents a significant change for many stakeholders, including workers and communities that are directly impacted by the closure of existing power stations or the development of new generation and transmission infrastructure across Australia.

- Social licence: Stakeholders across the energy sector have an important role to play in continuing to build community trust, awareness, and support for the energy transition, by listening to community needs, continuing to provide education, and delivering shared benefits.
- Workforce transformation: Collaboration between industry, government and tertiary institutions is necessary to cultivate the skills and capabilities required for the future workforce, as well as enabling strong support for workers impacted by the energy transition.

Energy affordability impacts arising from the energy transition are a pressing concern for customers, with external pressures such as inflationary conditions and rising fuel costs contributing to increases in the delivered price of energy for customers.

- Support for customers: AGL, along with governments and all
  parts of the energy industry, will need to have a sustained focus
  on delivering better outcomes for energy customers, including
  providing support for those experiencing vulnerability.
- Equitable access: Barriers to accessing CER will need to be removed to enable all customers to participate in accessing the benefits of the energy transition, with appropriate cost allocation frameworks that consider equitable recovery of transition costs.
   Effective frameworks and education programs are required so that customers are protected and empowered to make the right choices for their circumstances.

The energy transition is complex and represents a significant shift for many customers in how they live, move, and work. The right policy and regulatory settings are needed to build a healthy ecosystem of trusted energy providers, so that the energy transition delivers a range of affordable and convenient products and services that deliver new value for customers.

- **Effective regulatory settings and appropriate customer protections:** Regulatory settings must continue to support the long-term needs of customers by reducing complexity, supporting competition and delivering trusted energy products and services. An appropriate principles-based regulatory environment that enhances competition between energy providers will facilitate innovation, create optionality and reduce costs for customers.
- Minimising costs associated with regulatory reform: In developing the right policy settings to support these objectives, careful consideration must be given to the volume of regulation that will be required to support necessary reform. There are significant costs associated with regulatory reform which should not be underestimated.

Gas is expected to play a critical role in the energy transition, underpinning the reliability of Australia's energy system and supporting customers as they decarbonise

Adequate gas supply and flexible gas-powered generation are expected to play a key role in enabling the energy transition and achieving Australia's net-zero emissions targets.

In the 2024 ISP and 2025 Gas Statement of Opportunities (GSOO), AEMO has emphasised the importance of gas in maintaining Australia's energy security and highlighted the urgent need for investment in new gas supplies and infrastructure.<sup>1</sup>

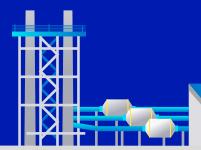
AEMO's Step Change scenario predicts a rise in flexible gas-powered generation capacity to provide the firming support needed for a system with high levels of variable renewable energy, such as wind and solar. Flexible gas-powered generation can be used intermittently to support periods of exceptionally high demand or when renewable output is limited (e.g. during short-term or sustained wind droughts or in inclement or extreme weather), and short-term storage is unavailable.

Reliable gas supply is also essential for electricity generation, as well as industrial and residential use. All of the scenarios modelled by AEMO in the 2025 GSOO identified the need for new supply investments to meet future gas demand.

Electrification of the broader economy will take time: AEMO's 2024 ISP notes that the NEM will need to triple its capacity by 2050 to support other sectors as they decarbonise through electrification. Managing the costs of this essential transition will be important, as will the collaboration between government and industry to solve the complexities of this challenge. As an essential service, cost-effective gas will need to be available to customers who need it, while industry and government work together to deliver electrification at scale.

As the energy transition progresses, other technologies (e.g. long-duration batteries) and low-emissions fuels (e.g. green hydrogen) may be used in place of gas, however at present these alternatives do not achieve outcomes at the lowest cost to customers, and are not being delivered at the required pace to meet emissions targets and replace ageing infrastructure.

1. AEMO 2024 ISP and AEMO 2025 GSOO, available at <a href="mailto:aemo.com.au">aemo.com.au</a>.



# Australia's energy transition requires a collective effort

Strong collaboration and cooperation are required to deliver a nationwide energy transition at pace and at scale, to contribute to the achievement of Australia's climate goals

A sustainable economy, underpinned by a renewable, affordable, reliable energy system

#### Widespread electrification

- · Solar PV and battery acceleration
- Electrification of homes and businesses
- · Electric vehicle uptake at scale
- · Demand-side flexibility
- Improved energy efficiency and productivity
- · Fuel-switching from natural gas

#### **Economy-wide decarbonisation**

- Progressive closure of coal-fired power stations
- Acceleration of renewable energy generation, energy storage capacity and firming generation
- Green transport, industrial processes, and sustainable fuels
- Widespread circular economy principles and solutions

Accelerated through long term policy certainty, effective market settings, improved infrastructure delivery, and a supportive investment environment

#### Long-term policy certainty

- Ambitious and achievable long-term climate targets
- Comprehensive policy frameworks across all sectors of the economy

#### **Effective market settings**

- Efficient markets delivering energy and essential services at lowest cost
- Utilisation of competitive markets to unlock innovation and support new investment

#### Improved infrastructure delivery

- Streamlined planning, approval and connection processes
- Future-ready transmission and distribution networks
- Enhanced project delivery, advanced logistics and resilient supply chains

### Supportive investment environment

- Easy access to capital for funding the transition
- Attractive conditions for domestic sustainable development
- Funding grants and support for capital intensive developments

Enabled by a responsible transition that builds trust with customers, communities and workers

### Customer-centric electrification

- Attractive and competitive energy products and services that support customer choice
- Energy affordability and support to vulnerable customers
- Equitable access and better customer protections

#### Social licence

- Broad community understanding of energy transition
- Strong local support of new projects with shared benefits
- Site transformation and rehabilitation

### Workforce transformation

- Responsible transition for the existing workforce
- Building skills and capabilities required for the future



AGL's major contributions

Lead in electrification

Support customer affordability

Closure of coal-fired power stations by FY35°

12 GW new renewable and firming capacity by 2035\*

Net zero Scope 1 & 2 post coal closure\*

Net zero Scope 1, 2 & 3 by 2050\*

Building new capabilities, site transition and energy hubs

Stakeholder and community engagement

**Policy advocacy** 

<sup>\*</sup> Refer to AGL's Pathway to net zero for details of our commitments

# Pathway to net zero

AGL supports the Australian Government's target of achieving net zero by 2050, and we have charted a pathway to becoming net zero for our operations and business value chain.



### Pathway to net zero - Scope 1, 2 and 3 emissions

Our decarbonisation pathway outlines our targets and plans towards meeting our target to be net zero for Scope 1 and 2 emissions following closure of our coal-fired power stations, and our ambition to be net zero for Scope 1, 2 and 3 emissions by 2050. Key emissions reduction milestones in our decarbonisation pathway are illustrated below. Further details on interim targets and our actions to reduce emissions are presented on pages 19-23 (Scope 1 and 2 emissions) and pages 24-34 (Scope 3 emissions).

#### Our net zero targets and ambitions

Target

Net zero for Scope 1 & 2

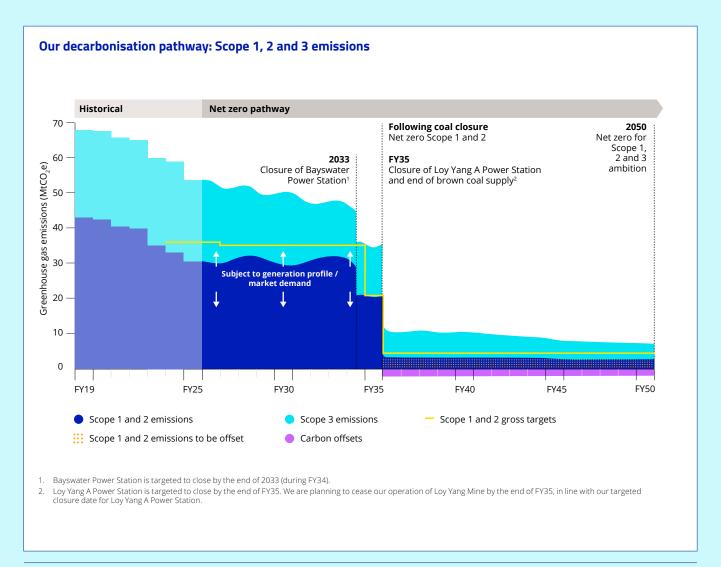
following the closure of our coal-fired power stations¹

Ambition

Net zero for Scope 1, 2 & 3

by 2050

1. Net zero target applies from the financial year following the closure of our coal-fired power stations, planned to be FY36. Loy Yang A Power Station is targeted to close by the end of FY35.



# Pathway to net zero – Scope 1 and 2 emissions

Our emissions reduction pathway for Scope 1 and 2 emissions is focused on closing our remaining coal-fired power stations in line with the significant decarbonisation commitments made in our 2022 CTAP, and accelerating the transition of our energy portfolio with new and increased targets for renewable and firming capacity to provide our customers with reliable electricity.

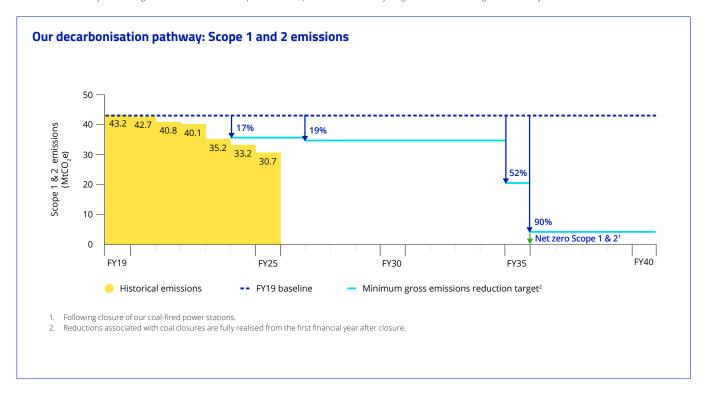
#### Our Scope 1 and 2 pathway

#### Our Scope 1 and 2 emissions1 reduction targets

(Reduction in gross annual Scope 1 and 2 emissions compared to FY19 baseline)

Short term FY26	Short to medium term FY27 – FY34 <sup>2</sup>	Medium term FY35 <sup>3</sup>	<b>Long term</b> Following closure of our coal-fired power stations <sup>4</sup>	
Scope 1 & 2				
17%	19%	52%	≥90%	Net zero

- 1. Emissions comprise Scope 1 and 2 greenhouse gas emissions for all facilities operated by AGL, as reported under the National Greenhouse and Energy Reporting Act 2007.
- 2. Target applies from FY27 to FY34 inclusive
- 3. FY35 is the first full financial year following the targeted closure date of Bayswater Power Station by the end of 2033 (FY34).
- 4. From the financial year following the closure of our coal-fired power stations, planned to be FY36. Loy Yang A Power Station is targeted to close by the end of FY35.



# The operating profile of our coal-fired power stations and their associated emissions will vary in response to broader electricity market needs as the energy transition progresses

The operating profile of, and emissions arising from, our coal-fired power stations is influenced by the energy mix and energy demand within the NEM, as well as operational constraints such as planned and unplanned outages. As the electricity market transitions to include more renewables and experiences more peaky loads, flexibility of our power stations will become increasingly important.

Our annual gross Scope 1 and 2 emissions reductions are expected to outperform the targeted percentages. AGL has exceeded our target to reduce annual Scope 1 and 2 emissions compared to a FY19 baseline by 17% (as originally set in our 2022 CTAP) each year since FY23, achieving reductions ranging from 18.5% to 29.1%.

Our emissions reduction targets factor in the likely impact of the energy transition, allowing for years where our coal and gas fleet may be required to generate more electricity so that customer demand is met reliably and safely. Reliability may also vary: our experience with Liddell Power Station (which was 52 years old at the time of retirement) showed that the reliability of ageing coal-fired power stations is expected to decline substantially. Our Bayswater and Loy Yang A power stations will be approximately 50 years old by their targeted closure dates.



# Actions to reduce our Scope 1 and 2 emissions

The actions we are taking to reduce our Scope 1 and 2 emissions are outlined below.

#### **Power station closures**

AGL is committed to meeting the targeted closure dates for our coal-fired power stations:

- Bayswater Power Station is targeted to close by the end of 2033<sup>1</sup>
- Loy Yang A Power Station is targeted to close by the end of FY35<sup>2</sup>

In addition, Torrens Island 'B' Power Station (gas-fired) is scheduled to close by 30 June 2026. The South Australian Government, recognising the importance of having sufficient long-duration firming capacity to ensure secure, reliable and resilient electricity supply in South Australia, has requested that AGL considers extending the operation of the Torrens Island 'B' Power Station for two years.

As at the date of the CTAP, discussions regarding this request are ongoing. While the discussions have not yet resulted in a legally binding agreement, AGL has agreed in-principle to the request and continues to engage constructively with the South Australian Government. To provide certainty to relevant stakeholders (including our employees), AGL has advised the South Australian Government that any binding agreement to extend the operation of the Torrens Island 'B' Power Station must be finalised by no later than 30 September 2025.

This extension, if agreed, would not impact AGL's delivery of the commitments outlined in the CTAP in relation to emissions reduction targets or the approach to responsible transition. AGL will continue to plan for the closure of the power station and the ongoing transition of the site into an integrated energy hub by the relevant closure date. More information regarding the closure of this power station is included in the <u>Responsible transition</u> section on page <u>38</u>.

### Optimising the operations of our coal-fired power stations over their remaining lifetimes

We are investing in increasing the flexibility of our coal-fired generation fleet as its role in the electricity system evolves. Our investments over the past three years and further upgrades at Loy Yang A (planned for completion in FY26) are expected to reduce the combined minimum generation capacity of our coal fleet to 1,760 MW (previously 2,000 MW) – meaning we can flexibly operate over 60% of our total coal generation capacity of 4,925 MW. In addition to enabling improved commercial outcomes, flexible operations may deliver emissions reduction benefits. The investment in operational flexibility upgrades at Bayswater and Loy Yang A power stations enabled the avoidance of approximately 290,000 tCO<sub>2</sub>e of greenhouse gas emissions in FY25.<sup>3</sup>

- 1. Subject to market and regulatory conditions. Asset management plans have been structured to support the closure of Bayswater Power Station by the end of 2033.
- Asset management plans have been structured to support the targeted closure of Loy Yang A Power Station by the end of FY35. AGL has a Structured Transition Agreement
  (STA) with the Victorian Government which provides for the orderly closure of the Loy Yang A Power Station by a scheduled closure date of 30 June 2035, and a framework for
  safeguarding the continued and reliable operation of Loy Yang A Power Station until its planned closure date.
- 3. Based on comparison of estimated greenhouse gas emissions from operating the units at Bayswater and Loy Yang A power stations at their previous minimum generation levels versus estimated emissions from operation of units at reduced minimum generation levels during FY25.

# Enabling a flexible asset base to support the energy transition

With increasing volatility in energy generation, our approach to improving the flexibility of our coal fleet includes:

- Trialling "two-shifting", which allows a unit of a power station
  to be taken offline and back online within a period of time
  (typically ranging from 12-48 hours). In FY25, a unit at Bayswater
  Power Station was successfully returned to service within
  12 hours of being taken offline. Two-shifting may not deliver
  emissions benefits where fuel combustion continues during the
  offline period (referred to as "de-synchronised two-shifting").
  Two-shifting is an alternative to mothballing of units which
  involves shutting down a unit for an extended period of time.
- Investing in upgrades to lower minimum generation capacity, allowing units to run at reduced generation levels with lower greenhouse gases emissions.

Increasing the flexibility of our coal-fired power stations helps us to manage the impacts of lower demand or negative electricity prices during peak solar times. While this flexibility supports the energy transition and may reduce emissions, flexible operations are driven by market conditions.



#### Adding new sources of electricity supply

We are adding new renewable and firming capacity to deliver energy for our customers and enable the responsible exit of our coal-fired generation fleet. We have built a significant 9.6 GW pipeline of new renewable and firming projects, which has more than tripled since our the release of our inaugural CTAP. We are on track to meet our ambition to add 12 GW of new renewable and firming capacity for our customers by the end of 2035, and we will seek options to accelerate where possible. We have also increased our interim target from 5 GW by 2030 to 6 GW<sup>4</sup> by FY30.

#### Our portfolio rebuild plans

Medium term End of FY30	Long term End of 2035	
New renewable and firming capacity		
Target <sup>1</sup> 6 GW	Ambition <sup>2</sup> 12 GW	

- 1. In construction, delivery or contracted from FY23 onwards.
- This includes consumer energy resources.

These targets and ambitions are supported by existing and new short- and medium-term interim targets:

- 1.5 GW total grid-scale batteries by FY27<sup>5</sup>
- · 2.1 GW of new renewable and firming capacity by FY274
- At least 3 GW total grid-scale batteries by FY30<sup>5</sup>

- 4. Measured as new renewable and firming capacity in construction, delivery, or contracted from beginning of FY23.
- 5. Total grid-scale batteries operated, contracted or in delivery.

#### Other actions to reduce emissions

As shown on page <u>9</u>, over 99% of our Scope 1 and 2 greenhouse gas emissions arise from our electricity generation and storage facilities, with over 95% arising from our coal-fired power stations. Other sources of Scope 1 and 2 emissions currently do not have a material impact on our emissions profile, however they will become a greater relative proportion of our emissions following the closure of our coal-fired power stations. Therefore, as we approach the closure of these assets, efforts to reduce these other sources of Scope 1 and 2 emissions will become increasingly important.

#### Other Scope 1 emissions

Sources of Scope 1 emissions outside of our power generation activities currently arise from natural gas combustion and fugitive emissions from the Newcastle Gas Storage Facility, combustion of natural gas in buildings, and the combustion of liquid fuels (e.g. diesel and petrol) in vehicles and equipment.

Following the closure of the Camden Gas Project in FY24 and the divestment of gas production, storage and processing facilities in the Surat basin in FY25, our remaining Scope 1 emissions arising from operations associated with natural gas supply arise from Newcastle Gas Storage Facility. Emissions from this facility vary from year to year in line with the facility's use profile.

Scope 1 emissions arising from company fleet vehicles are currently a minor source of our Scope 1 emissions. We are committed to pursuing the transition of 100% of eligible company vehicles<sup>2</sup> from fuel to electric over time.

#### Scope 2 emissions

Electricity imports at our generation and storage sites accounted for over 90% of our Scope 2 emissions in FY25, with the remainder of Scope 2 emissions arising from gas production<sup>3</sup> and storage facilities, offices, warehouses and staff accommodation. As the emissions intensity of the electricity grid declines over time, this will contribute to a reduction in our Scope 2 emissions. The actions we are taking to transition our energy portfolio will support a reduction in the emissions intensity of the electricity grid over time.



#### Nature and climate

The physical effects of climate change (including rising temperatures, changing precipitation patterns, and increasing frequency of extreme weather events) can disrupt habitats, threaten species, and degrade ecosystem services, which in turn affect the health, livelihoods, and economies of the communities that depend on them. As such, actions taken by the global community to mitigate the extent of climate change will improve nature outcomes.

As we take action to transition our existing large thermal generation sites into energy hubs and add new sources of renewable and firming capacity, we are also seeking opportunities to improve environmental outcomes at these sites.

We recognise the importance of continuing to improve our understanding of nature-related impacts, risks, opportunities and dependencies in our operations and broader value chain to inform better decision-making and promote resilience.

- 1. Other sources of Scope 1 emissions in FY25 and prior years include natural gas extraction and processing activities. Following the closure of Camden Gas Plant in FY24 and the divestment of our primary Surat gas assets in FY25 these emissions sources will not be part of AGL's emissions profile from FY26.
- 2. Eligible company vehicles include our corporate vehicle fleet, excluding vehicles used at Loy Yang mine.
- 3. Gas production operations were fully exited in FY25 and will not contribute to AGL's Scope 2 emissions from FY26.

#### Residual emissions

As outlined in our <u>Carbon Offsets Policy</u>, our approach to reducing our Scope 1 and 2 emissions is guided by the mitigation hierarchy, whereby the reduction of sources of emissions within our value chain are prioritised over other measures such as offsetting.<sup>4</sup>

Following the closure of our coal-fired power stations, we are targeting a 90% or more reduction in gross emissions compared to FY19 levels. We plan to offset residual Scope 1 and 2 emissions arising from the operation of gas-powered generators, batteries, renewable generation assets, offices and other facilities. More details about our approach to offsets are outlined in our Carbon Offsets Policy on our <u>website</u>.

Achieving our net zero target for our Scope 1 and 2 emissions relies on the availability of commercially viable offsets that meet stakeholder needs for integrity and a supportive regulatory environment. AGL may also consider using CCUS technologies in the future to help meet our emissions targets, subject to technological and commercial viability, community support, and an appropriate policy framework.

We support a level playing field, whereby the costs of realising a net zero economy are borne fairly by all market participants, where participants with carbon-intensive assets and with credible emissions reduction plans are not at a competitive disadvantage in the broader market.

Offsets will not be used towards meeting our interim Scope 1 and 2 gross emissions reduction targets (i.e. the targets that apply before the closure of Loy Yang A Power Station). These emissions reduction targets are *gross* rather than *net* targets, intended to drive direct emissions reductions.

#### Key enablers and dependencies

The decarbonisation of AGL's generation portfolio requires the delivery of significant amounts of supporting infrastructure to support a low-emissions electricity system and the continued delivery of reliable and affordable energy for our customers. Australia's energy transition will require an unprecedented level of coordination between all levels of government, regulated networks, private businesses, and the broader community, as well as a favourable external operating environment for energy businesses and global advances in the cost of low-emissions technologies. The material risks to achieving our targets and commitments are outlined in further detail on page <u>60</u>.

# Our Scope 1 and 2 emissions profile will evolve as our energy portfolio transitions

- Our Scope 1 and 2 emissions will decrease significantly over time, reaching 90% or more below our FY19 baseline following closure of our coal-fired power stations.
- The emissions profile of gas-powered generation is dependent on the carbon intensity of the technology used, as well as the output level and frequency at which it is used (capacity factor).
- We plan to abate residual Scope 1 and 2 emissions following the retirement of our coal-fired power stations; future offsets are factored into our financial planning and capital allocation process.
- While the retirement of our coal-fired power stations will materially reduce our total Scope 1 and 2 emissions, the addition of new assets to our operational portfolio – including gas-powered generation, behind the meter back-up diesel generators, batteries and renewables will introduce new sources of Scope 1 and 2 emissions. We have considered potential new emissions sources associated with meeting our portfolio rebuild targets when setting our Scope 1 and 2 emissions reduction pathway.<sup>1</sup>
- Excludes potential emissions from any future energy hubs projects operated by AGL, for which it is not possible to forecast emissions at this stage.



 Mitigation hierarchy approach guided by the Voluntary Carbon Markets Integrity Initiative, Claims Code of Practice, April 2025.

### Pathway to net zero – Scope 3 emissions

Over 95% of our Scope 3 emissions<sup>1</sup> arise from three activities: the supply of gas to our customers, the supply of electricity to our customers, and the supply of brown coal from the Loy Yang mine to the (third-party owned) Loy Yang B Power Station. The successful delivery of our strategy will be key to reducing Scope 3 emissions upstream and downstream in our value chain.

Key levers for reducing our Scope 3 emissions include the progressive decarbonisation of the grid and the electrification of Australia's economy. AGL's strategic objective to connect every customer to a sustainable future, which involves supporting our customers to decarbonise the way they live, move and work, will be key to reducing our emissions from the supply of electricity and gas to our customers.

Relative to our operational (Scope 1 and 2) emissions, we have a lower level of control or influence over our Scope 3 emissions, and the outlook for our Scope 3 emissions is subject to a greater degree of uncertainty. Given the large proportion of AGL's Scope 3 emissions that arise from the sale of electricity and gas to our customers, AGL's Scope 3 emissions outlook is fundamentally linked to the pace of the broader energy transition.

The closure of AGL's as well as other coal-fired power stations will have a material impact on the carbon intensity of generation in the NEM, which will drive a reduction in some aspects of our Scope 3 emissions

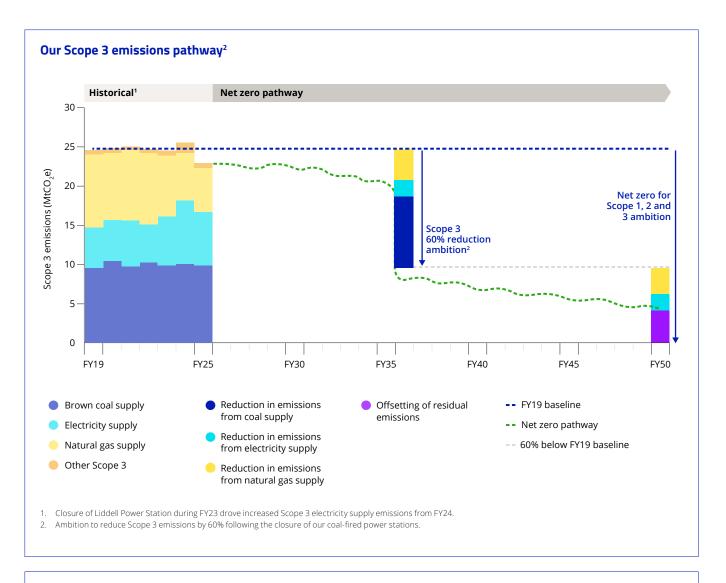
#### Our Scope 3 pathway

#### Our Scope 3 emissions reduction ambitions

Medium term Following the closure of our coal-fired power stations <sup>1</sup>	Long term 2050	
Scope 3 <sup>2</sup>	Scope 1, 2 & 3	
<b>60%</b> gross emissions reduction <sup>3</sup>	<b>90%</b> gross emissions reduction <sup>3</sup>	Net zero

- 1. Target applies from the financial year following the closure of our coal-fired power stations, planned to be FY36. Loy Yang A Power Station is targeted to close by the end of FY35.
- 2. Scope 3 emissions as reported annually in accordance with the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard. The ambitions exclude potential emissions from any future energy hubs projects for which it is not possible to forecast emissions at this stage.
- 3. Compared to FY19 baseline. FY19 was selected as the baseline year to align with our Scope 1 and 2 targets baseline.

<sup>1.</sup> Refer to page <u>9</u>, (<u>Our emissions profile</u>).



#### Our plans to deliver our Scope 3 ambitions<sup>3</sup>

#### **Near-term targets**

to drive Scope 3 decarbonisation

#### **60%**

Scope 3 reduction ambition compared to FY19 following closure of our coal-fired power stations

#### Net zero

ambition for Scope 1, 2 and 3 by 2050

#### Leading in electrification:

- Target: 300 MW of cumulative customer assets installed by FY27
- Ambition: 2.5 GW of demand side flexibility by FY27
- 1 million electric vehicles forecast to be powered by FY30

#### Reducing grid intensity

 Target: 6 GW new renewable and firming capacity by FY30 60% Scope 3 reduction assumes:

- AGL ends brown coal supply:
   ~10 MtCO₂e ↓
- Electricity grid intensity reduction:
   ~2 MtCO₂e ↓
- Reduced gas supply primarily driven by electrification:
  - ~3.5 MtCO₂e ↓
- Supported by closure of our coalfired power stations and portfolio rebuild plans

#### Our Scope 1, 2 & 3 pathway to net zero includes:

- Significant grid intensity reduction, including coal phase out
- 2050 mass market gas sales extrapolated from AEMO Progressive Change outlook
- An ambition to reduce gross Scope 1, 2 and 3 emissions by 90% by 2050 against a FY19 baseline

While we have assumed that gas will continue to be required by Australian homes and businesses to 2050 in our modelled net zero pathway, we are focused on supporting electrification across the market to accelerate the transition away from gas usage.

- 2. Net zero pathway is based on AEMO's Progressive Change outlook and is subject to the pace of the broader energy transition. Refer to page 34 for details.
- For full details of our commitments refer to pages <u>26-33</u>.

#### Actions to reduce our Scope 3 emissions

We are taking steps to enable reductions in Scope 3 emissions across our value chain, which will support our progress toward our ambition of being net zero for Scope 1,2 and 3 emissions by 2050¹.

#### Emissions associated with the supply of natural gas to our customers

In FY25 close to one quarter of our Scope 3 emissions were associated with the supply of natural gas to our customers across Australia. These emissions arise from: upstream natural gas exploration, production and processing; losses that occur in transmission and distribution networks; and the end use of gas by customers, usually through combustion.

The most important way in which we can reduce the Scope 3 emissions relating to the gas we supply to our customers is by helping our customers reduce their overall gas demand through electrification, fuel switching and efficiency measures.

AGL is actively investing to support customers to transition away from natural gas, through electrification and fuel switching. As a provider of an essential service, we recognise and support our customers' choice in how and when they choose to decarbonise, and we note that AEMO's projections suggest that gas will continue to be used by Australian homes and businesses until at least 2045<sup>2</sup>. With the right policy settings, customer support and incentives, the transition away from gas could accelerate – and we are actively advocating for policies that drive electrification.

Our Scope 3 decarbonisation pathway includes a gas sales outlook extrapolated from AEMO's Progressive Change<sup>2</sup> trajectory, so that the associated Scope 3 emissions are not underestimated. However, we are focused on helping the energy market shift towards a future where gas will no longer be widely used. For Australia to reach its net zero commitments by the middle of the century, homes, businesses and industry will need to electrify or use alternative zero-emissions fuels at scale. We support the phaseout of new residential gas connections, as well as targeted restrictions and incentives to support the transition from gas to electric appliances, delivering a customer-centered energy transition. More information about how we are supporting the affordability of energy to customers through the transition is included on page 38 (Responsible transition) and pages 48-51 (What we stand for).

Reducing gas supply Scope 3 emissions: Initiatives that support our customers to decarbonise the way they live, work and move through electrification and fuel switching<sup>3</sup>



Live

#### Supporting home electrification

Electrification of appliances in the home (including hot water, heating and cooking appliances) will be key to reducing our gas supply Scope 3 emissions.

- Our Electrify Now platform helps customers to understand their potential energy bill and carbon savings if their home switched to solar, battery, heat pump hot water, an EV and/or induction cooktop.
- Electrification is a key focus area of AGL's advocacy – this includes supporting a phaseout of new residential gas connections and reforms across pricing, markets and networks to support CER uptake. See the What we stand for section for details.



#### Move

#### **Electrification of transport**

We are also supporting our customers to **make the switch to EVs**, supporting the switch away from petrol and diesel and electrification of the broader economy.

Refer to page <u>29</u> for more details.



#### Work

#### Supporting C&I electrification and fuel switching

**Electrification** of C&I customers' gas use where feasible will also help to reduce reliance on gas.

- As outlined on pages <u>28-29</u>, we offer a suite of <u>C&I decarbonisation services</u> which support electrification, including solar PV, behind the meter batteries, our VPP and a Net Zero Advisory Service, and we partner with <u>C&I</u> customers to deliver tailored energy solutions.
- In 2022 AGL acquired Energy360, a provider of systems producing renewable biogas from organic waste streams at C&l sites, supporting eligible customers to fuel switch from conventional natural gas to renewable gas.

- 1. Descriptions of AGL's initiatives, products and services to support reductions in Scope 3 emissions from our electricity supply and gas supply value chains are current as at
- AEMO 2025 GSOO, projections only provided to 2044.
- 8. Activities represent current initiatives as of 30 June 2025 and do not represent commitments to continue to deliver these initiatives moving forward.

# Empowering customers to electrify with Electrify Now

To support consumers on their electrification journey, AGL launched Electrify Now - a free digital advisory platform that simplifies the path to electrification. Powered by advanced analytics and consumer data, the platform delivers personalised electrification options – using actual household energy consumption to present tailored solutions and estimate savings in energy bills and carbon emissions. Customers are then connected with trusted installers and receive direct quotes to act on electrification opportunities.

Since launching in May 2024, we have:

- Had more than 500,000 visits to the platform
- Identified average household energy bill saving opportunity of just over \$1,000 annually
- Identified average emissions reduction opportunity per household of 3 tCO<sub>2</sub>e annually<sup>1</sup>
- For reference, annual emissions from the energy consumption of an average Australian household are estimated as approximately 5 tCO<sub>2</sub>e (energy consumption based on Residential Energy Consumption Benchmarks, Frontier Economics, 2020).



#### Impact of electrification on emissions

AGL is focused on supporting customers to decarbonise the way they live, move and work - electrification of buildings, transport and industry is a key enabler of this. While electrification may drive increases in AGL's electricity supply Scope 3 emissions for a period of time (i.e. as we supply additional electricity to customers to charge vehicles or power appliances that have replaced those powered by petrol, diesel or natural gas), this will enable reductions in emissions in the broader economy, particularly in the long term as the electricity grid decarbonises in line with Australia's net zero targets.

#### Emissions associated with the supply of electricity to our customers

In FY25, almost one third of our Scope 3 emissions were associated with the supply of electricity to our customers across Australia. These emissions arise from the generation of electricity we purchase from the grid, upstream emissions associated with extraction and production of fuel that is used for power generation at AGL's power stations or for the generation of electricity we purchase from the grid, and electricity losses that occur in the transmission and distribution networks.

There are two main ways in which the Scope 3 emissions associated with the electricity that we supply to our customers can be reduced: by reducing the emissions intensity of the electricity we supply through the overall decarbonisation of the electricity grid, and by helping our customers reduce their overall grid electricity demand. Consumer energy resources (CER) have a key role to play in enabling these levers: increasing CER uptake by our customers, and effective orchestration of that CER, can help to drive down our customers' grid electricity demand, as well as playing a role in supporting the decarbonisation of the grid.

#### Our CER and orchestration plans

Short term FY27	Short term FY27
Cumulative customer assets installed <sup>1</sup>	Demand-side flexibility <sup>2</sup>
Target 300 MW	Ambition 2.5 GW

- Installations completed from FY24 FY27 inclusive.
- Ambition for the capacity that can respond to AGL-initiated signals to orchestrate assets and the customer-led capacity that may respond to AGL's incentives to time-shift electricity or asset use.

We have a strong focus on accelerating CER adoption and co-ordination and have set an ambition to have 2.5 GW of demand-side flexibility by FY27.

Initiatives that AGL is undertaking to support customers to decarbonise their electricity use, which will support a reduction in AGL's Scope 3 emissions from electricity supply, are outlined below. While AGL is investing to proactively support customers to decarbonise and drive innovative solutions that provide value to customers and the market, the pace at which this occurs will be largely customer driven and strongly influenced by broader market and regulatory settings.

#### CER orchestration and load flexibility playing a key role

Over time, electrification will see more than ten million Australian households replace the appliances they use for heating, cooking and hot water with more efficient electric models, switch to EVs or add rooftop solar and batteries to their home. Adoption of CER at scale will require millions of decentralised power and load sources to be effectively managed to support a more stable and reliable grid. Connecting these assets with smart technologies that can optimise their operation for the customer and help maintain a sustainable energy network presents a significant opportunity.

Orchestration will play an important role in enabling the benefits of CER uptake to be shared more equitably, by incentivising consumers with CER to remain connected to the grid which will enable lower network costs for grid electricity consumers as well as increasing rooftop solar grid penetration and helping to manage peak loads. We are actively pursuing opportunities in coordinating these systems through orchestration, and we currently provide over 445,000 demand-side flexibility products<sup>1</sup> to customers.

AGL is well placed to lead in the coordination of CER by leveraging our scale, and we are taking steps to unlock value through our investments, including in Kaluza and South Australia's Virtual Power Plant. We are committed to championing the role of the customer in leading the uptake and integration of CER. We recognise that customer choice and competition are important drivers of innovation, and we're advocating for electricity market and network reforms to support the accelerated uptake of CER by enabling customers to make the most of the value of their investments. See the What we stand for section for details.

1. AGL products that feature incentives for customers to time-shift electricity or asset use or allow response to AGL-initiated signals to orchestrate assets.



Reducing electricity supply Scope 3 emissions: Initiatives that support our customers to decarbonise the way they live, work and move through reducing the emissions intensity of the electricity they consume and reducing their grid electricity usage<sup>1</sup>



Live

#### Driving the uptake and orchestration of CER

- We are expanding our range of solar and battery offerings including sales and installations, system monitoring, and our Solar Savers and Battery Rewards energy plans.
- AGL has one of the largest flexible portfolios in the National Electricity Market, spanning AGLmanaged generation and CER assets orchestrated through AGL's VPP, and flexible customer loads responding to intentionally designed tariffs. We are driving value for AGL and customers by load shifting aided by householder electrification assets.
- AGL has acquired South Australia's
   Virtual Power Plant (SAVPP), one
   of Australia's largest VPPs, which
   comprises a network of solar and
   home battery systems installed on
   South Australian social and community
   housing. Participating customers receive
   discounted energy prices under the
   SAVPP program. We are exploring ways
   to expand this model to more energy
   users, including social and community
   housing residents across Australia.
- We are providing education for our customers about the financial and emissions benefits of CER through our Electrify Now platform (see page <u>26</u>).
- In partnership with Plenti (with the support of the Clean Energy Finance Corporation), eligible customers can apply for discounted finance rates for residential solar batteries (see page 29).
- We are advocating for reforms to support CER uptake and effective integration and orchestration. See page 48 (What we stand for) for details.



#### Move

#### Driving the switch to EVs

- AGL is committed to being the partner of choice for e-mobility services for our customers, with products and services that encourage customers to switch to EVs. We forecast we will power over 1 million EVs by 2035<sup>2</sup>.
- Our EV energy plan supports customer switching to EVs by providing discounted tariffs to incentivise charging by residential EV owners.
- Our EV subscription service helps households and businesses access the benefits of EVs without needing to purchase a car.
- Our partnership with BP Pulse enables eligible customers to access EV charging discounts at bp pulse sites.
- We have partnered with PLUS ES to deliver a public kerbside charging offer and install 153 public EV chargers across Sydney during FY25.
- Our EV plans and the scaling of smart charging solutions through our investment in Kaluza enables customers to shift their energy usage while progressing toward vehicle-togrid readiness.
- Everty's Chargepoint Management
   System connects to EV chargers to
   optimise charging operations and assists
   customers in managing their vehicle
   charging and energy consumption.
- We are supporting businesses to electrify their commercial fleets by offering bespoke trials and scaled fleet transition products and services, as well as turnkey charging solutions.
- We advocate for stronger standards on vehicles, and improved pricing structures and tariffs to support EV uptake. See page 48 (What we stand for) for details.



#### Work

#### Supporting our C&I customers to decarbonise

- We have the ambition to be the decarbonisation partner of choice for our C&I customers, and offer a range of products, services and support to help manage their energy usage and decarbonise their operations.
- We are Australia's largest commercial solar installer, and we also offer behind the meter batteries, our VPP and renewable PPAs. We are also developing a time of use tariff to incentivise energy use at times of peak renewable generation.
- In FY25 we launched a Net Zero
   Advisory Service to support C&I
   customers on their decarbonisation
   journeys through services and
   recommendations provided by our net
   zero advisory partners. We also partner
   with customers to deliver tailored
   energy solutions.
- We are actively developing Australian Carbon Credit Unit projects, focusing on high-integrity, nature-based solutions intended to deliver long-term carbon sequestration and landscape restoration. These projects may support our customers, including those with obligations under the Safeguard Mechanism.
- We offer long-term renewable PPAs
   to connect our C&l customers with
   renewable energy, including retail PPAs
   which support grid-scale renewables
   investment, and on-site solar PPAs
   whereby AGL owns and operates assets
   under an energy-as-a-Service model,
   enabling customers to benefit from
   on-site renewables without incurring
   upfront capital costs.



#### Our contribution to decarbonising the grid

- Closure of our coal-fired power stations will contribute to reducing the emissions intensity of the electricity we supply to our customers. (As noted on page 8, closure of our coal-fired power stations may drive an increase in our Scope 3 emissions in the short term.)
- Delivery of additional renewable and firming capacity to the NEM will reduce the emissions intensity of the electricity that we supply. Refer to pages 20-22 for further details.
- 1. Activities represent current initiatives as of 30 June 2025 and do not represent commitments to continue to deliver these initiatives moving forward.
- 2. Based on AEMO Step Change and Progressive Change EV forecasts; 2035 outcome will be subject to customer uptake.

# We are offering a range of initiatives to support growing uptake of CER and electrification by our customers, which will support our Scope 3 decarbonisation pathway.



# Partnering with Plenti and CEFC to drive affordable decarbonisation solutions for customers

AGL has partnered with fintech lender Plenti Group Limited to connect eligible customers with competitive financing for residential solar batteries, supported by the Clean Energy Finance Corporation (CEFC). AGL customers can apply for a Plenti Green Loan to install a solar battery in their home at a discounted interest rate.

The upfront costs of decarbonising homes can be a significant barrier for some customers. By facilitating access to competitive finance, we are enabling more customers to decarbonise the way they live, move and work.

This partnership has resulted in loan originations of over \$1.6 million, since it was launched in October 2024.

# How hot water orchestration can help customers harness lower emissions energy

In most homes, hot water heaters have traditionally been scheduled to heat up overnight. Historically, wholesale electricity prices were lowest overnight, but this is changing: we now have the opportunity to shift hot water load to the cheapest part of the day when there is abundant solar in the grid.

In 2023, we embarked on a hot water orchestration trial with PLUS ES and UNSW, with funding support from ARENA. The trial involved the development of a technology-enabled solution to allow the dynamic control of up to 20,000 hot water heaters in near real time, and successfully demonstrated:

- A 14.3% reduction in emissions associated with water heating compared to traditional controlled load with nighttime heating;
- Delivery of energy bill savings to customers (estimated \$63/year per household); and
- Potential to scale hot water orchestration to improve grid stability and increase renewable energy utilisation across the NEM

We are now orchestrating the hot water loads of nearly 100,000 customers through our virtual power plant and exploring ways to increase energy bill savings for customers over time.

# Cadell Orchards powers irrigation with renewable energy

Australian Farming Services (AFS), operator of Cadell Orchards, a 1,690-hectare almond farm in New South Wales, faced high costs and reliability issues with diesel-powered irrigation. Cadell Orchards partnered with AGL to implement an on-site microgrid solution which includes a 4.9 MW tracking solar array, a 5.4 MWh battery, and approximately 8 km of underground power lines. This system delivers up to 6.1 GWh of renewable energy annually, enabling the farm to operate independently from the electricity grid. The initiative reduces Cadell Orchards' diesel reliance by 85% and cut greenhouse emissions by around 4,000 tCO $_2$ e each year. Under a 20-year Power Purchase Agreement, AGL owns and operates the microgrid, allowing Cadell Orchards to benefit from renewable energy without upfront capital expenditure.



 $<sup>1.\ \</sup>underline{https://arena.gov.au/knowledge-bank/plus-es-south-australia-demand-flexibility-trial-final-knowledge-sharing-report/likesia-final-knowledge-sharing-report-re$ 

<sup>2.</sup> As at 30 June 2025.



#### **AGL Community Power**

In July 2025 AGL launched 'AGL Community Power', seeking to share the benefits of the energy transition with customers regardless of asset ownership. **emPowering SA** and the **SAVPP** are part of AGL Community Power and are initiatives for those who can't purchase energy assets such as solar and batteries. AGL is working to develop and introduce new business models and propositions to accelerate growth in decentralised assets orchestration and assist customers who have traditionally been locked out of the benefits of the energy transition.

#### South Australia's Virtual Power Plant (SAVPP)

In July 2025, AGL announced the acquisition of Tesla's SAVPP, one of Australia's largest VPPs which was first established in 2018 with support from the South Australian Government and ARENA. The SAVPP is a network of solar and home battery systems installed on South Australian social and community housing. The solar and battery systems are now owned by AGL, with customers who are part of this program receiving significantly discounted energy prices. The solar and battery assets will be coordinated to work together, and also used to help stabilise the electricity grid where required. AGL is exploring ways to expand the benefits of this innovative model to more energy users, including social housing residents across Australia.

#### emPowering SA

In July 2025, AGL announced a partnership with the South Australian Department of Energy and Mining (SA DEM) on the emPowering South Australia Community Batteries project (emPowering SA program) to build and operate 16 community batteries across South Australia. The emPowering SA program is designed to provide electricity storage and offer lower residential electricity rates for eligible low-income households to assist them to reduce their electricity bills.

The 16 new 700 kW / 1,828 kWh batteries as well as SA DEM's two recently commissioned community batteries at Magill and Edwardstown will join AGL's market-leading Virtual Power Plant (VPP) and deliver 11.5 MW of flexible storage assets in total.

The project is supported by the Australian Renewable Energy Agency's (ARENA) Community Battery Program with ARENA providing funding of approximately \$11 million, on top of AGL's \$4 million investment.

# Building an e-mobility ecosystem to connect more Australians to sustainable transport

The transport sector is projected to be Australia's largest source of greenhouse gas emissions by 2030. We're helping both residential and business customers transition to emobility through a series of innovative products and programs:

- EV energy plans we are providing more affordable charging with tariffs that encourage customers to shift EV charging out of peak windows, with approximately 35,000 customers already participating.
- Smart charging solutions we are investing in technology and partners like Kaluza to help customers shift and automate EV charging to cheaper, grid-stabilising times, while advancing vehicle-to-grid readiness.
- Kerbside pole charging we partnered with PLUS ES to deliver 153 public chargers in Sydney in FY25, enabling those without off-street parking to take up EVs.
- **EV subscription** we offer EV subscriptions for customers who want an EV without the upfront cost of ownership.
- Commercial charging and fleet solutions we are supporting businesses to transition their fleet vehicles and provide EV charging to their customers with end-to-end fleet transition services, charging infrastructure delivery and optimised energy tariffs.
- Everty charge point management system software connects to EV chargers to optimise charging operations and assist customers in managing their vehicle charging and energy consumption.

AGL's e-mobility ecosystem supports energy network resilience, removes barriers to enable EV adoption at scale and helps provide simple and affordable options, enabling the acceleration of EV uptake in Australia.



#### Emissions associated with the supply of brown coal

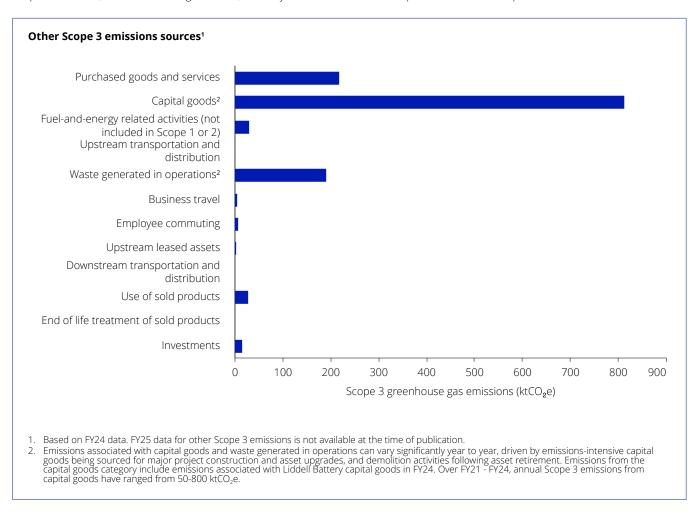
Scope 3 emissions arising from the sale of brown coal to Loy Yang B Power Station account for around 10 MtCO<sub>2</sub>e annually, comprising over one third of AGL's current Scope 3 emissions. These emissions arise from the combustion of coal to generate electricity.

AGL has a contract to supply coal from the Loy Yang Mine to Loy Yang B Australia Limited for combustion in its Loy Yang B Power Station. There will be a 100% reduction in AGL's Scope 3 emissions arising from coal sold to Loy Yang B Power Station when AGL's operation of Loy Yang Mine ceases.

We are planning to cease our operation of Loy Yang Mine by the end of FY35,<sup>1</sup> in line with our targeted closure date for the Loy Yang A Power Station, and in line with the Victorian Government's legislated renewable energy target to achieve 95% renewable energy by 2035.

#### Other Scope 3 emissions

As outlined on pages <u>8-9</u>, approximately 95% of our Scope 3 greenhouse gas emissions arise from the three value chains described above (brown coal supply, electricity supply and gas supply), and we are focusing our efforts on reducing emissions from these sources. Our other Scope 3 emissions, as shown in the figure below, currently do not have a material impact on our emissions profile.



<sup>1.</sup> Following coal production ceasing, fugitive emissions associated with the mine may occur and fall within AGL's Scope 1 emissions boundary during the rehabilitation phase.

#### Pathway to net zero

As we decarbonise our material value chains, efforts to reduce these other sources of emissions will become increasingly important. As part of our focus on embracing ESG, we are embedding ESG considerations into the work we do and the decisions we make. Decarbonisation and portfolio transition is one of six identified ESG focus areas to drive ESG performance. Some initiatives we are undertaking to drive reductions in our non-material Scope 3 emissions are outlined below.<sup>2</sup>

#### **Purchased Goods and Services**

 AGL's Supplier Code of Conduct outlines the minimum ESG standards that we expect from our suppliers. Suppliers are expected to identify, monitor and minimise emissions and energy consumption from their operations; and continuously improve their environmental performance.

#### Waste

- We are embracing circular economy design principles in developing plans for our energy hubs, AGL is exploring opportunities for battery and PV solar panel recycling.
- Additionally, as part of the decommissioning and demolitions processes for the Liddell Power Station (closed in April 2023) we are focused on recycling and materials recovery and minimising waste sent to landfill.

#### **Capital Goods**

 The emissions associated with capital goods for major projects are being considered as part of the planning and procurement process as we undertake major energy project development as part of our portfolio transition.

#### **Employee Commuting**

- AGL offers employees a novated EV subscription service, as well as novated leases on e-bikes.
- AGL provides EV charging facilities for employee use at some of our operational and corporate sites.

We currently estimate Scope 3 emissions from non-material sources using standard emissions factors. As these emissions sources become more predominant in our emissions profile (i.e. as our Scope 1 and 2 emissions fall and our Scope 3 emissions from our brown coal, electricity and gas supply chains reduce), there may be opportunities to improve the accuracy of our accounting for these emissions including through collaborating with participants upstream and downstream in the value chain to obtain a more accurate account of emissions sources. We expect the introduction of mandatory climate reporting in Australia through the Australian Accounting Standards Board's AASB S2 Standard will drive greater data availability as more companies begin to take account of their Scope 1 emissions (which may form part of AGL's Scope 3 emissions).

# Emissions arising from assets at end of life

In the coming decades, as AGL's owned and operated behind the meter assets, wind, solar and grid-scale battery assets reach the end of their operating lives, AGL will have Scope 3 emissions associated with the end-of-life treatment of these assets. AGL also has Scope 3 emissions associated with the end-of-life treatment of solar panels and batteries sold to our customers, and as the adoption of these behind the meter technologies grows and these systems reach the end of their operational lives on an increasing scale, managing this waste stream will become a more prevalent issue.

AGL supports the development of a domestic recycling industry for these materials, in alignment with our commitment to sustainability and circular economy principles. This may reduce life cycle emissions for future energy assets as well as having broader environmental and local industry benefits. As the carbon intensity of Australia's electricity system falls, the emissions associated with energy-intensive recycling processes may also benefit.

AGL has signed MOUs with Renewable Metals and Elecsome to explore the development of battery recycling and solar recycling facilities (respectively) at AGL's future Hunter Energy Hub. More information on our vision for integrated energy hubs is available on page 40.



Activities represent current initiatives as of 30 June 2025 and do not represent commitments to continue to deliver these initiatives moving forward.

#### Residual emissions

In alignment with the mitigation hierarchy (discussed on page  $\underline{23}$ ), AGL's Scope 3 decarbonisation approach is focused on delivering direct emissions reductions.

As part of AGL's ambition to be net zero for Scope 1, 2 and 3 by 2050, we have set an ambition to directly reduce Scope 1, 2 and 3 emissions by 90% relative to FY19 levels by 2050. We recognise that high quality carbon offsets and other negative emissions technology solutions underpinned by a robust carbon market may be needed to meet a net zero by 2050 ambition for Australia's economy.

Achieving Australia's net zero goal will take a whole-of-economy decarbonisation approach. As outlined on pages <u>48-51</u> (What we stand for), this will require coordinated effort across the sector and regulatory settings that create a level playing field so that: all emissions sources across the sector are phased out in an orderly manner; businesses with strong decarbonisation plans are not disadvantaged over those with no decarbonisation pathways; and residual emissions offset where energy market conditions may require the continued use of fossil fuels for some industries or customer segments.

#### Key enablers and dependencies

Key enablers and dependencies for our Scope 1, 2 and 3 net zero pathway are outlined below, with further details provided on page <u>60</u>. We have based our Scope 3 pathway ambitions on conservative outlooks for the decarbonisation of the electricity and gas markets to set credible ambitions, and our advocacy is aligned to unlocking structural and systemic changes which may unlock an accelerated pathway.

#### Rate of decarbonisation of the electricity market

The orderly closure of coal-fired generation will be a key driver of Scope 3 emissions across our supply chains. This will need not only cross-sectoral coordination but efficient, well-designed energy markets and policy certainty to deliver the investment in renewables, storage, and firming to enable the energy transition.

Realising a net zero energy system by 2050 will require emissions from gas-powered generation to be addressed. While carbon offsets will have a role, in the long term alternative technological solutions may become more viable. This could involve substitution with low-carbon fuels (such as green hydrogen or renewable gas), or a transition to alternative firming technologies, subject to technological developments.

Our net zero pathway for electricity supply to customers may be accelerated through market-level shifts to unlock a faster transition of the energy system. See the <u>What we stand for</u> section for details.

#### Gas market decarbonisation

AEMO's 2025 Gas Statement of Opportunities (GSOO) scenario modelling covers the next two decades. Extrapolation of the amount of gas remaining in the system in the mid-2040s in the scenarios presented in AEMO's GSOO do not suggest a net zero trajectory for the gas sector. An accelerated electrification roll-out and decarbonisation of the gas market on a national scale is a significant undertaking that will require major structural changes to the energy market that will need to be driven by significant policy reforms. Currently there remains significant uncertainty as to whether and how this will be enacted. As technologies evolve, there may be a clearer pathway to net zero for the gas sector.

To provide a credible basis, we have tested our ambition against ISP's Progressive Change GSOO outlook, which assumes a gradual pace of residential electrification and decarbonisation of the gas market, as a base case from which opportunities to accelerate can be driven.

As outlined in pages 48-51 (What we stand for), electrification is a key focus area of AGL's advocacy – this includes supporting a phaseout of new residential gas connections. However, the transition away from gas appliances represents a capital intensive and complex infrastructure replacement activity that will occur over an asset replacement period that is likely to span decades. As an essential service provider we also advocate for market settings that support energy affordability, in particular supporting customers experiencing vulnerabilities and other customers who may have challenges getting off gas (e.g. renters). In the short to medium term it will be important that customers have choices available to them, including gas being available to support customers who are unable to afford or choose not to replace their appliances.

Gas market decarbonisation will also be reliant on the development of cost-effective alternative low-carbon fuels, such as green hydrogen, particularly for use in high-heat applications in industry. The opportunity to convert (or replace) gas-powered generators with green hydrogen generation may also reduce the volume of emissions that need to be offset in the future.

#### Methodology

Our Scope 3 emissions reduction ambitions are subject to revision and re-baselining where necessary, as accepted methodologies, industry standards and data accuracy develop, and as market outlooks evolve over time. Details on our Scope 3 estimation methods and key assumptions can be found in our 2025 Annual Report.

# Responsible transition

We are committed to working constructively with our stakeholders, including our customers, our people and the communities where we operate, to deliver a responsible transition that considers and respects their needs.



AGL aims to positively contribute to the delivery of a responsible transition that supports those impacted by the changing energy landscape, including our people, the community and our customers. We recognise the increasing stakeholder expectation, including from the investment community, for companies, industry sectors and governments to communicate their strategies and plans in the context of how they will support the delivery of a 'just transition' as the economy decarbonises.

As we deliver on our strategy and decarbonise our operations and the energy that we supply, we are committed to working constructively with our stakeholders, including our customers, our people and the communities where we operate, to deliver a responsible transition that considers and respects their needs. This includes working with dedicated government agencies like the Net Zero Economy Authority who are coordinating just transition efforts nationally.

The needs of our people, customers and local communities will continue to evolve as the energy transition progresses, including as we approach the retirement dates for our large thermal generation assets.

#### **Our commitments**

We have established the following principles to guide how we will support a responsible transition.

#### **People**

AGL is committed to supporting our people who are impacted by the retirement of our energy assets including our large thermal power stations. Our people transition principles, as outlined below, establish minimum standards of conduct for how we will approach supporting our people whose employment is impacted by the closure of our power stations. As we approach the scheduled retirement dates for our power stations, we will use these principles to develop specific commitments for each site.

As our thermal power stations approach closure:

- We will establish a Transition (People) Working Group at least 3.5 years before the planned retirement of our large thermal power stations. The Working Group will lead the consultation and communication of people-related transition activities, and will be made up of management, People Transition leads, site P&C resources, employees, and relevant union representatives.
- We will work with impacted employees to develop individual transition plans to help them prepare for success following closure of the asset.
- We will provide reasonable relevant training to help impacted employees prepare for a future aligned to the outcomes agreed in their individual transition plans.
- We will support our people by providing reasonable assistance in securing future employment opportunities (if required), including internal appointments where practical.
- We will provide a dedicated resource facility (located on site at our larger sites) as a focal point for providing support services in relation to job seeking, career development, transition to retirement, superannuation and resilience and wellbeing initiatives.
- We will seek opportunities to collaborate and partner with organisations across the government and tertiary education sectors to create training and upskilling opportunities for our people and members of the communities adjacent to our assets.

Torrens Island 'B' Power Station is the next of AGL's major power stations to retire. We have established more detailed plans for how

we will support our people in the lead up to this power station's retirement (refer to page <u>39</u>).

We are also committed to supporting the development of our workforce and Australia's broader energy transition workforce to build the skills and capabilities required for the future and contribute to addressing broader energy sector labour and capability shortages.

Assisting our employees to be future fit is part of our broader transformation strategy, and we are focused on supporting our employees to be resilient, adaptable and equipped to successfully navigate the changing energy industry landscape. AGL is working to embed a strategic and coordinated approach to capability through skill development.

Across our business we are driving initiatives that support continuous learning for all our employees, and we seek to support opportunities for learning and development in the broader communities.

#### **Communities**

AGL engages with the community stakeholders of our existing operating assets and those of future proposed projects with the aim of understanding the communities' expectations and aspirations for creating positive, long-lasting social, economic and environmental contributions. Respectful and inclusive engagement with local communities provides an important basis for creating and maintaining productive relationships with these stakeholders.

AGL's commitments in relation to the way in which we engage with communities comprise:

We engage proactively with Traditional Custodian groups and First Nations communities to develop respectful relationships and a better understanding of the perspectives and aspirations of the First Nations stakeholders, with the aim of creating trusted and long-term partnerships, sustainable opportunities for employment, economic participation, and protection of Country, culture and heritage. We acknowledge that our current and future operations impact Aboriginal lands and communities, and we recognise that engagement with Traditional Custodian groups

brings diverse experiences and knowledge that will support the delivery of a successful energy transition. Our <u>Reconciliation Action Plan</u> details our commitments to building strong connections, listening, learning and respecting principles of self-determination when working with local Traditional Custodians and local First Nations communities.

- We have community engagement plans for our operating assets and proposed projects, and we keep the community informed of how their feedback is considered in decision-making via one or more of the approaches below (as appropriate to the circumstances):
  - Inform: AGL keeps the community and stakeholders informed of decisions, actions or for educational purposes.
  - Consult: AGL consults with the community and stakeholders for the purpose of obtaining opinions and feedback and to provide an opportunity for the community to share their knowledge before a decision is made.
- Involve: AGL works with the community to ensure concerns and aspirations are reflected in alternatives that are developed and provide feedback on how public input influenced the decision.
- Collaborate: AGL collaborates with the community to develop and build solutions. Input is reflected in the decisions to the extent practicable.
- AGL partners with organisations who support initiatives that align with the areas that matter to us and the communities where we operate. Our community investment program aims to deliver positive social, economic and environmental contributions through strategic and sustained community partnerships and grants that address local needs and support the energy transition in communities where we operate.

 AGL offers communities the opportunity to share the benefits of projects and consults with them on the options available. AGL will develop benefit sharing guidelines that reflect a best practice approach, to apply across our projects. A key aspect of this will be the co-design of benefit sharing programs to support the specific needs and aspirations of First Nations communities where our renewable projects are located.

The significance we place upon genuine and effective community engagement is set out in our Community Engagement Policy, which includes the following commitments about how we will engage with the community throughout the life of our projects:

- Embrace the uniqueness of our communities: We approach each project and stakeholder interaction as a unique undertaking.
- Be proactive: We engage with our communities early and often, so that we understand and respond to their interests and concerns.
- Be flexible and inclusive: We offer a range of engagement opportunities that are tailored to the variety of needs and preferences of the communities in which we operate.
- **Be transparent:** We act honestly and ethically in all our dealings with the communities in which we operate.
- **Be responsive:** We respect community input and ensure that community feedback is taken into consideration and responded to appropriately.
- Act as a good neighbour: We establish long-term relationships and earn the trust of local communities we operate in to become an integral part of these communities.

Further, AGL works with all levels of government to advocate for the right economic and policy settings to support the private and public investment required for new and existing industries in regions where we operate. Refer to page 57 (Responsible policy advocacy and stakeholder engagement) and pages 48-51 (What we stand for) for more information.

# Supporting the community through the energy transition – partnership with Gippsland Climate Change Network

We partnered with Gippsland Climate Change Network (GCCN) in 2022 to fund the installation of a community EV charger network in Gippsland. This partnership is funded under AGL's *Powering our Community* program, which supports the energy transition for community organisations who would not be able to afford the cost of decarbonising without funding support. The aim of the partnership with GCCN is to establish the Latrobe Valley as one of the state's leading regions for EV charging infrastructure.

The network includes chargers at Lardner Park, Baw Baw Food Hub in Warragul, the Business Enterprise Centre in Churchill, Yallambee Aged Care Villorkage in Traralgon, the Uniting Church in Yarragon and the latest installation at Gunaikurnai Land and Water Aboriginal Corporation (GLaWAC) building in Kalimna West. Other locations are being assessed for suitability to host EV chargers.

"We are excited to host this EV charging facility at GLaWAC. It represents a meaningful step towards a sustainable future and reflects our intrinsic responsibilities to care for Country as we continue to grow our influence across Gunaikurnai Country,"

- Tanya Taylor, Executive Director Growth and Sustainability (GLaWAC).



#### **Customers**

As the energy system decarbonises, our customers are front of mind, and we are committed to pursuing outcomes that enable our customers to share in the benefits of the energy transition. Our customer-centric approach also extends to our approach to policy advocacy, particularly through supporting customer affordability, driving electrification, and advocating for a simplified regulatory framework that reduces complexity and cost for customers (as outlined in the <a href="What we stand for">What we stand for</a> section). We recognise that the energy transition is complex and will represent a significant shift for many customers in how they live, move, and work. The right policy and regulatory settings are needed to enable energy providers to deliver a range of affordable and convenient products and services that deliver value for customers.

#### Innovative products:

We recognise that every customer's decarbonisation journey
will be different, and we are growing our range of innovative
products and services to meet the changing needs of our different
customer groups, while also having robust mechanisms in place to
protect our customers who are experiencing vulnerability.

#### Unlocking value for customers:

- AGL aims to be the partner of choice in helping our customers decarbonise the way they live, move and work. AGL will support our customers in unlocking value from their decarbonisation choices, including by helping customers understand the energy transition and what it means for them, and helping them engage confidently with, and make informed choices about, managing their energy usage and investing in CER.
- We will continue to expand our capabilities in our home and business electrification and decarbonisation solution portfolios, and to increase customer awareness across the electrification value chain, aiming to facilitate an energy transition that is effective, affordable, and beneficial for our customers.
- AGL will advocate for reforms that empower customer choice and encourage competition, such as stronger standards on buildings, vehicles and appliances and improved technology integration of consumer energy resources to deliver value to both residential and business customers.

#### Advocating for equitable outcomes and access for consumers:

- Recognising that Australia's transition to net zero will require
  significant structural changes to the energy system (as outlined on
  pages 13-16 (Operating environment), we will engage with a broad
  group of stakeholders across the energy sector, government,
  industry bodies and the community sector to advocate for positive
  outcomes for customers through the energy transition.
- AGL will continue to take a broad, whole-of-system view
  of the costs of the energy transition and the impact on
  customer affordability, advocating for appropriate cost allocation
  frameworks to be in place that consider how consumers
  contribute equitably towards the cost of the energy transition.

· AGL Community Power seeks to deliver on AGL's commitment to finding innovative ways to share the benefits of the energy transition regardless of asset ownership, including with those who cannot purchase solar and batteries or who may be locked out due to barriers related to home ownership, such as those in social and community housing. Two of the current AGL initiatives that are part of AGL Community Power include the emPowering SA program, which is designed to provide electricity storage and offer lower residential electricity rates for eligible low-income households to assist them to reduce their electricity bills, and South Australia's Virtual Power Plant, which is a network of solar and home battery systems installed on South Australian social and community housing. We are exploring ways to expand the benefits of AGL Community Power to more energy users across Australia, including social and community housing residents in other states and territories.

#### Protecting our customers experiencing vulnerability:

- AGL will champion greater collaboration across energy retailing regarding support for customers experiencing vulnerability, and work across the energy sector to deliver better outcomes for customers.
- We are integrating customer support initiatives into our business operations, including by enabling our customers to access support through the energy transition. This will promote affordability, equity and consumer trust while fulfilling regulatory and social responsibilities.
- AGL will continue to support our customers who are experiencing vulnerability through a dedicated program of work to continuously improve our understanding of what our customers need, and by updating our policies and processes to reflect those learnings.

#### **Effective engagement with our Customer Council:**

 Through regular engagement with our Customer Council, we will continue to lead discussions and advocate on policy issues related to supporting our residential and business customers through the energy transition.

#### Spotlight on Torrens Island 'B' Power Station closure

Torrens Island Power Station has been generating electricity for South Australians since the 1960s, with the 'A' Station commencing operations in 1967 and the 'B' Station commencing in 1976. Following careful modelling of market conditions and extensive consultation with stakeholders, including the South Australian Government, AGL began progressively closing Torrens Island 'A' Station in September 2020, with the final unit closing in September 2022. In November 2022 AGL announced the planned closure of the Torrens Island 'B' Power Station on 30 June 2026.

Over the past five years, AGL has invested around \$475 million in major energy projects at our Torrens Island site, including the 210 MW Barker Inlet Power Station and the 250 MW Torrens Battery, in recognition that the site will continue to play a crucial role in Australia's energy system. We are also taking action to transform the site into an integrated energy hub, with the potential to drive new investment and create new job opportunities.

Notwithstanding future opportunities, we recognise the impact that the future closure of Torrens Island 'B' Power Station will have on some of our employees, and we are working with our people, in conjunction with unions and government, to help manage the closure of the power station.

To provide as much certainty and career choice for employees as practical, we are delivering the following support to impacted Torrens Island Power Station employees:

- **Open consultation and communications:** Since its establishment in May 2023, the Torrens Transition (People) Working Group, which is made up of local management, employees and representatives from relevant unions, has met to communicate and consult on employee transition arrangements. The TWG meets approximately every eight weeks.
- Individual career development plans: Impacted employees have individual transition plans in place, and we will work with individuals to update and refine their plans as required through the period until closure of the power station.
- **Training:** AGL will provide the opportunity for each employee to undertake relevant training<sup>1</sup> up to the value of \$5,000 to prepare them for their futures following the closure of the power station.
- **Job placement support:** AGL will assist employees by facilitating reasonable future employment opportunities, including offering job outplacement services, resume support and internal appointments where appropriate.
- **Support services:** AGL has established an onsite resource facility (Torrens Hub) as the focal point for people-related transition activities. The Torrens Hub provides support services in relation to job seeking and career development (e.g., LinkedIn profile building and optimisation, resume support, professional headshots, and assistance in identifying key strengths and skills), superannuation, retirement advice and resilience and wellbeing initiatives.
- Transition provisions in Enterprise Agreement: AGL has embedded a transition clause within the Torrens Island Enterprise Agreement, which covers commitments regarding training funding, job placement support and providing a Transition Working Group.



1. Training must be reasonable, relevant and aligned to the employee's individual development plan.

#### **Planning for future Energy Hubs**

As part of our strategic goal of transitioning our energy portfolio is the transformation of our existing large thermal generation sites into integrated energy hubs which aim to complement the decarbonising energy sector, contribute to regional economies and help build resilient communities.

With circular economy principles at the forefront, through our three proposed energy hubs in the Hunter Valley, Latrobe Valley and at Torrens Island, we aim to repurpose the land and infrastructure to facilitate the establishment of new industries that can play a key role in the energy transition, creating regional economic diversification and job creation across areas such as low-carbon manufacturing, materials recovery and recycling, low-carbon fuels, computing services and other energy intensive industries, co-located with grid-scale batteries and renewable energy generation.

Each energy hub site has its own natural advantages and complexities, which may suit different sectors of industry. These factors include land size, connectivity to transport infrastructure, existing grid connections, water infrastructure, zoning permissions and presence of a local workforce.

In FY23 we started working towards 6-8 major industrial clients located on or connected to an energy hub by the end of FY27. The Hunter Energy Hub is the furthest progressed and can act as a blueprint for other energy hub developments at Torrens Island and in the Latrobe Valley, unlocking a concept that has the potential to make a significant contribution to Australia's energy transition.

The initial land and infrastructure assessments for the Hunter Energy Hub have been completed, with the spot rezoning proposal to enable a broader range of activities on defined areas of the site approved by NSW Planning authorities in June 2025.

Initial land and infrastructure assessments for the Torrens Island and Latrobe energy hubs are also underway.

The transition of our sites has already started. The 250 MW /250 MWh Torrens Battery commenced operations in 2023, and construction of the 500 MW /1,000 MWh Liddell battery commenced in 2024 and is expected to be operational in 2026. In addition, the Hunter Energy Hub is home to a Manuka tree plantation, which is owned and operated by the Wonnarua Nation Aboriginal Corporation. Planting commenced during FY25 and with AGL's support this endeavour offers employment opportunities, and in future has the potential to become a revenue generating activity for this First Nations group.

Achievement of AGL's ambitions for the energy hubs will be a function of Government policies that incentivise and de-risk the creation of new industries and supply chains, including funding, economic incentives and efficient planning and licensing regimes.

#### **Community benefits**

**Create jobs** within regional communities over a 20+ year time horizon.

Partner with local councils to deliver community outcomes.

Support delivery of First Nations projects.

### Support decarbonisation and build supply chains

Leverage AGL's renewable energy and carbon abatement solutions for hub partners.

Reuse **waste products** from power stations and hub partners.



## Bring together industry and renewable energy

Develop **grid-scale batteries** and other **energy storage** projects.

Catalyse investment in **new industries** such as manufacturing, recycling, agriculture, sustainable fuels and information services.

Advance renewable energy projects in the region.

# Liddell Power Station and Camden Gas Project closures

#### Liddell Power Station

AGL was widely recognised by community and government stakeholders for the safe and respectful closure of the Liddell Power Station in April 2023 after 52 years of operation. Supporting our Liddell workforce and the local community was a central part of our closure plans, and we delivered on our commitment to have no forced redundancies. Around 100 people (comprising over half of our Liddell employees) transferred to AGL's Bayswater Power Station in continued employment, and all other employees were supported with individual transition plans, as they elected to retire or seek other opportunities.

Also key to our closure strategy was the establishment of the Liddell 'Future U Hub' two years prior closure, which was an on-site centre dedicated to supporting our people plan for their futures. The Liddell Future U Hub prioritised mental health support, with a focus on training that gave our people skills and tools to help manage their wellbeing and mental health during the closure process.





#### Camden Gas Project

The Camden Gas Project supplied gas to New South Wales from 144 wells from 2001 until closure in August 2023. The decommissioning of the Camden Gas Project has been characterised by considered closure planning and effective community and stakeholder engagement. The decommissioning processes for both the Rosalind Park Gas Plant and the gas collection wells were conducted with a strong emphasis on effective community and stakeholder engagement, as well as environmental stewardship to mitigate potential environmental impacts. Our workforce was supported with individual transition plans, mental health support, career outplacement services, financial counselling, superannuation talks, and information on retirement.

Following the closure of the Camden Gas Project and the sale of our assets in the Surat basin in March 2025, AGL has ceased operating all upstream gas exploration and production assets.

# Climate scenarios and our contribution to mitigating temperature rise

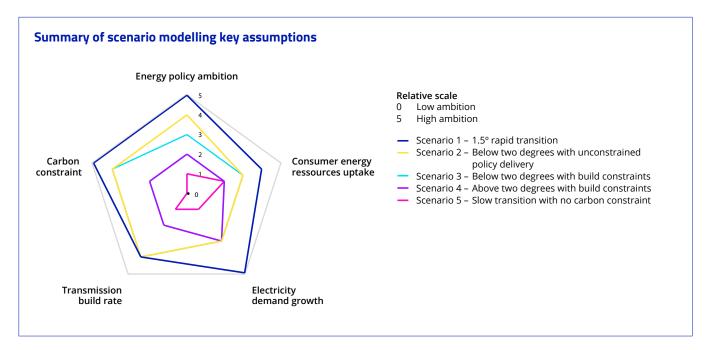
AGL has undertaken scenario analysis that considers a wide range of potential future pathways for the Australian energy sector.



# During FY25, AGL undertook scenario modelling of the Australian energy market to gain insights into potential transition pathways for the Australian energy system and associated implications for our business and strategy.

AGL engaged ACIL Allen (ACIL), an independent economic, policy and strategic advisory firm, to undertake market modelling of the NEM and the Western Australian Electricity Market (WEM). Detailed disclosures on the modelling approach, assumptions and results, as well as high-level implications for gas markets, are presented in the <u>Appendix: Scenario modelling</u>.

Five scenarios were modelled, designed to span a broad range of energy transition pathways with different warming outcomes<sup>1</sup>. These scenarios consider factors including market demand, CER uptake, coal-fired power station closure timeframes, climate and energy policy, and carbon budgets. The scenarios primarily utilise externally referenceable information and are aligned to AEMO's 2024 Integrated System Plan (ISP) for key assumptions. The modelled scenarios are not predictions or reflections of AGL's preferences or projections. Rather, they explore the possible implications of different interpretations and assumptions about the nature and pace of Australia's energy transition.



#### Pathways for the Australian energy sector

The modelling depicts a wide range of potential future pathways for the Australian energy sector, with the modelled scenarios reflecting a variety of paces at which the energy transition could unfold:

- Scenarios 1 and 2 depict pathways where the execution of the energy transition is not limited by any constraints, enabling accelerated delivery of energy projects and an earlier phasing out of coal-fired power stations, to meet the assumed carbon constraints.
- Broadly reflective of current market conditions, scenarios 3 and 4 illustrate energy transition pathways with varying degrees of constraints on energy infrastructure delivery rates, resulting in delays to the achievement of Australia's renewable energy targets.
- Scenario 5 depicts a pathway where progress on the energy transition is significantly slowed and Australia's decarbonisation objectives are not met.

Across all modelled pathways, a significant build-out of energy infrastructure is required over the coming decades. As outlined on pages 13-16 (Operating environment), there are significant real-world challenges to the timely delivery of energy projects at scale, and there are varying perspectives on the progress of Australia's energy transition, with some external analysis suggesting Australia is not on track to meet its renewable policy targets by 2030. For example, as noted by the Clean Energy Council<sup>2</sup>, Australia added 2 GW of grid-scale generation in 2024, significantly below the annual rate of 6 GW that is forecast by AEMO to be required under the ISP's Step Change central scenario. Further, New South Wales Renewable Energy Zones have seen recent delays in anticipated delivery timing<sup>3,4</sup> and AEMO has recently highlighted the rising cost of transmission infrastructure will likely result in fewer transmission network projects being delivered over the next decade,<sup>4</sup> which may act to further constrain the amount of new renewable generation that is able to be connected to the grid in coming years. AEMO's 2024 ISP suggested that coal-fired power stations in the NEM would need to close two to three times faster than announced closure dates to meet government policy objectives.<sup>5</sup> However, since the ISP's publication coal-fired generator expected closure years have remained largely unchanged, with

- 1. Temperature rise relative to pre-industrial levels, by 2100.
- 2. Clean Energy Council, Clean Energy Australia Report 2025 (May 2025).
- 3. EnergyCo, Network Infrastructure Strategy, May 2023.
- 4. AEMO, Draft 2025 Electricity Network Options Report (May 2025).
- 5. AEMO 2024 ISP per requirements for delivering the Optimal Development Pathway (Step Change scenario).

#### Climate scenario analysis

extension of Eraring Power Station's closure date being announced in 2024 through agreement with the New South Wales Government, to address reliability risks. The Queensland government also recently announced intended extensions to the closure dates for its fleet of coal-fired power stations.

Continued growth in the uptake of distributed solar PV and batteries presents a significant opportunity to drive progress on the energy transition if coordinated and integrated effectively into the system. However, as AEMO has reflected, the accelerated pace of energy project delivery to meet government policy objectives would require urgent investment in and delivery of infrastructure across the sector¹, including substantial investments in new variable renewable generation, transmission, low-emissions dispatchable generation, storage, and technologies providing system services. As detailed on pages 48-51 (What we stand for), we strongly support market and policy settings that will unlock investment and enable timely delivery of new energy projects, and mitigate some of the factors listed on page 60 (Risks to CTAP delivery).

We have drawn insights from the suite of modelled scenarios to inform the development of this CTAP and to stress test the resilience of our strategy. The wide range of electricity market transition pathways modelled highlights the importance of our strategy being resilient to evolving market conditions and uncertainty. Scenario 1 to Scenario 3 present possible decarbonisation pathways where the pace of the energy transition accelerates from historical rates, for which AGL would be well positioned to accelerate the delivery of our strategy through both our customer electrification and portfolio rebuild plans. In scenarios 4 and 5, the modelling illustrates slower energy transition pathways, where national emissions reduction objectives are delayed or not met. Whilst Scenario 5 illustrates a slower transition pathway where the market does not require the exit of coal-fired power stations by their targeted closure dates, AGL would remain committed to meeting our targeted closure dates for these assets, noting heightened risks associated with ageing asset reliability and operating costs, as well as physical climate hazards.

This analysis also demonstrates that AGL's electricity generation operational outlook, including the targeted closure dates for our coal-fired power stations, is consistent with a decarbonisation pathway where the NEM achieves an outcome consistent with limiting warming to below 2 degrees in line with the Paris Agreement (illustrated in Scenario 3).<sup>2</sup>

The outcomes and implications of the five modelled scenarios are discussed below.

#### Scenario 1 - 1.5° rapid transition

Temperature	Electricity	Electrification and	Renewable	AGL coal-fired power station closures
outcome	demand growth	CER uptake	build rates	
1.5° (RCP1.9)	Low Medium <b>High</b>	Low Medium <b>High</b>	Low Medium <b>High</b>	Modelled outcome Bayswater: FY30 Loy Yang A: FY30

Scenario 1 illustrates a pathway for the NEM to achieve rapid, deep emissions reductions consistent with a 1.5 degrees temperature rise outcome, predicated on real-world build constraints being fully removed. This scenario would require an accelerated coal closure schedule, combined with the rapid development of replacement grid-scale renewables, storage and firming. Near-term wind generation capacity would need to be built at annual rates of up to three times what has been achieved in Australia historically. Delivering this pathway would require real-world constraints to be overcome and a very significant uplift in the current rate of delivery of energy projects, requiring urgent government intervention which would lead to significant and immediate costs for customers and/or taxpayers.

Under this scenario, all coal-fired power stations in the market would close by FY30. As a result, some of the projected closure dates in the next few years would not meet AEMO's minimum notice of closure requirement. AGL's coal-fired power stations would both close in FY30 under this scenario, significantly earlier than currently planned. Consequently, AGL (along with other market participants) would need to significantly fast-track portfolio transition activities, presenting capital, supply chain, workforce, community and environmental challenges, as well as broader energy security concerns for the economy should the delivery and integration of required new capacity not occur in a timely manner.

AGL remains supportive of Australia's economy-wide pursuit of 1.5 degrees and acknowledges that efforts to reduce emissions will play a key role in limiting physical risks related to climate change.

However, the pace of decarbonisation of the NEM in Scenario 1 would be extremely challenging to deliver in practice. The pursuit of a 1.5 degree-aligned pathway for the Australian economy could require greater acceleration of decarbonisation efforts in other sectors. As noted by Climateworks Centre, to stay within a 1.5 degrees carbon budget Australia would also potentially need to rely on an unprecedented level of carbon sinks and negative emissions technologies to offset emissions overshoot and hard-to-abate emissions.<sup>3</sup> This would require a supportive policy framework, technological breakthroughs and a robust, transparent carbon market to ensure the integrity of offsets.

The highly challenging nature of delivering Scenario 1 in practice is further reinforced by the fact that globally, greenhouse gas emissions continue to rise, eroding the remaining global carbon budget to keep 1.5 degrees within reach, meaning increasingly extreme near-term emissions reductions would be required to meet this goal as time goes on.

- 1. AEMO 2024 ISP per requirements for delivering the Optimal Development Pathway (Step Change scenario).
- See <u>Risks to CTAP Delivery</u> section for key risks and dependencies.
- 3. Climateworks Centre (2023), Climateworks Centre decarbonisation scenarios 2023

#### Scenario 2 - Below two degrees4 with unconstrained policy delivery

Temperature	Electricity	Electrification and	Renewable	AGL coal-fired power station closures
outcome	demand growth	CER uptake	build rates	
1.8° (RCP2.6)	Low <b>Medium</b> High	Low Medium <b>High</b>	Low Medium <b>High</b>	Modelled outcome Bayswater: 2033 Loy Yang A: 2033

Scenario 2 presents a fast-tracked pathway to achieving a below two degrees-aligned temperature rise constraint for the NEM, where real-world build constraints are removed, enabling an accelerated energy transition to 2030, with committed state and federal energy policies delivered on time

Relative to Scenario 3, which presents an alternate below two degrees-aligned transition pathway, Scenario 2 would see a disproportionate amount of heavy lifting for the energy transition carried out in the near term. There is a significant acceleration in the build rate for wind generation to meet government targets by 2030, after which the build rate would slow to a more moderate pace. This would also drives earlier closure of coal-fired power stations across the market, with lower coal-fired generation volumes and increased seasonal mothballing of black coal-fired power stations in the lead-up to closures. Under Scenario 2, all coal-fired power stations would exit the market by FY36.

Under this scenario, AGL's Loy Yang A Power Station would close in 2033, earlier than our current closure plan, while Bayswater Power Station's closure would be in line with the targeted closure date. Under this scenario delivery of AGL's portfolio rebuild plans would need to occur more quickly than is currently anticipated.

#### Scenario 3 - Below two degrees4 with build constraints

Temperature	Electricity	Electrification and	Renewable	AGL coal-fired power station closures
outcome	demand growth	CER uptake	build rates	
1.8° (RCP2.6)	Low <b>Medium</b> High	Low <b>Medium</b> High	Low <b>Medium</b> High	Aligned to AGL announced closure dates <sup>1</sup> Bayswater: 2033 Loy Yang A: FY35

1. AGL's coal-fired power station closure dates were fixed as inputs in the modelling of Scenario 3.

Scenario 3 reflects our planned coal-fired power station operational plans and closure dates, and is consistent with a decarbonisation pathway where the Australian electricity market achieves a below two degrees outcome. Scenario 3 depicts a pathway where some degree of constraint on energy infrastructure build rates would result in delays to the achievement of Australia's 2030 policy targets, but rapid action in the early 2030s would act to reduce electricity sector emissions to meet a below 2 degrees-aligned carbon budget. Under Scenario 3, efforts to deliver new renewable generation capacity and grid-scale storage would enable the complete exit of coal-fired power stations from the market by FY35.

Scenario 3 illustrates a pathway consistent with AGL's operational strategy, including the targeted closure dates for our coal-fired power stations. In this scenario, AGL would seek to deliver our energy portfolio transition in alignment with our current plans (including our target to add 6 GW of new renewable and firming capacity by FY30, and our ambition to increase this to 12 GW by the end of 2035).

#### Planning for the closure of Loy Yang A Power Station

AGL has a Structured Transition Agreement (STA) with the Victorian Government relating to arrangements for the operation, maintenance and retirement of the Loy Yang A Power Station and the associated mine. The STA includes a framework that provides greater clarity for the reliable and secure supply of electricity in Victoria by safeguarding the continued and reliable operation of the power station at certain agreed minimum operational and performance availability levels until its closure date. The STA also provides for AGL and the State to collaborate on the orderly closure of the power station by a scheduled closure date of 30 June 2035, in line with AGL's targeted closure date for the power station.

The STA allows for scenarios where the Loy Yang A Power Station can close earlier than 30 June 2035, with agreement from the State, including if the power station is not needed for the reliable and secure supply of electricity in Victoria (as determined by AEMO).

<sup>4.</sup> AEMO's 2023 Inputs Assumptions and Scenarios Report states that the 2024 ISP Step Change carbon budget is "aligned to RCP2.6, which is consistent with a temperature rise less than 2°C by the end of the century and in line with the Paris Agreement."

# An alternative pathway to a below two degrees outcome

An iteration on Scenario 3 was also modelled, which further constrained onshore wind build-out based on historical rates. To meet the carbon budget, the scenario assumes an accelerated uptake of rooftop PV and behind the meter (BTM) batteries. In this scenario the Victorian Government's offshore wind targets are met on time.<sup>1</sup>

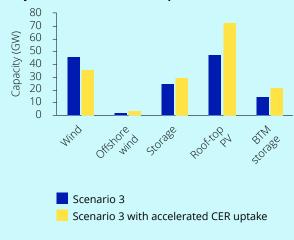
The level of rooftop PV modelled is extremely ambitious, with an additional 25 GW of solar PV over AEMO's 2024 ISP Step Change levels by FY35. Scenario 3 would achieve the same level of installed rooftop PV capacity 10 years later in FY45. Achieving this level of rooftop PV capacity by FY35 would require almost 3 million more homes in the NEM to install rooftop PV, when compared to Scenario 3. For this level of uptake to be plausible in terms of market penetration and economic growth, accelerated adoption by the commercial and industrial segment and widespread residential uptake including by rental properties would be required, as well as increased capacity factors and larger average system sizes over time.

The scenario iteration also models growth in BTM battery adoption proportionate to rooftop PV growth and assumes a larger proportion of consumers prioritise EV charging during daylight hours over peak periods. Compared to Scenario 3, the increased level of rooftop PV would result in more grid-

scale storage capacity by FY35, as well as higher levels of renewable curtailment.

This scenario iteration demonstrates how increased CER uptake could help provide low-emissions generation and offset some of the required grid-scale renewables build requirements of Scenario 3, and underscores the importance of advocating for market reforms that support CER integration and remove barriers to entry for consumers.

#### NEM capacity in FY35 – Scenario 3 and sensitivity analysis with accelerated CER uptake



#### Scenario 4 - Above two degrees with build constraints

Temperature	Electricity	Electrification and	Renewable	AGL coal-fired power station closures
outcome	demand growth	CER uptake	build rates	
~2.6° (RCP4.5)	Low <b>Medium</b> High	Low <b>Medium</b> High	Low <b>Medium</b> High	Aligned to AGL announced closure dates <sup>1</sup> Bayswater: 2033 Loy Yang A: FY35

1. AGL's coal-fired power station closure dates were fixed as inputs in the modelling of Scenario 4.

Scenario 4 explores the potential impact if some of the current challenges facing renewable projects worsen or are not resolved. In Scenario 4 the pace of energy infrastructure build-out is constrained to historical rates, resulting in a delay to the delivery of national 2030 renewable policy targets until the latter half of the 2030s, although net zero would still be achieved by 2050. All coal-fired power stations in the NEM would close by 2040.

Under this scenario, timely delivery of AGL's portfolio transition would potentially face challenges, mirroring current delays for renewable energy projects. An above 2 degrees temperature outcome could also result in increased exposure to physical climate hazards for AGL's assets or result in consequences for other aspects of nature, including negative ecosystem and biodiversity impacts.

<sup>1.</sup> In Scenario 3, the Victorian Government's interim 2 GW and 4 GW offshore wind targets are delivered 2 years later.

#### Scenario analysis of climate-related physical hazards

In FY24, AGL engaged Aon, an external risk specialist, to undertake analysis of both chronic and acute climate hazards under various warming scenarios. This analysis involved evaluating the potential hazards and impacts associated with different temperature outcomes, including  $\sim$ 1.8°,  $\sim$ 2.7° and  $\sim$ 4.4° warming outcomes, using data from multiple sources including CSIRO climate models and historical climate records.

This analysis indicated an increase in the occurrence of extreme weather events, such as bushfires, floods, and heatwaves, under higher warming scenarios at some of our assets. In particular the modelling of acute hazards indicates that under a ~4.4° warming scenario AGL sees a 23% increase in exposure to asset value at risk from flooding and a 23% increase from bushfire by 2090. The modelling also indicated an increased exposure to extreme heat and drought for our assets under a ~4.4° warming scenario by the end of the century. For a detailed breakdown of the scenarios, methodologies, and results, refer to AGL's 2025 Annual Report on our website.

To mitigate the risks posed by these hazards, AGL has already implemented several measures. For example, in the case of bushfires this includes robust fire prevention strategies such as regular plant maintenance, vegetation management, and the deployment of advanced fire detection and suppression technologies.

AGL addresses climate-related physical risks through our enterprise-wide risk management framework. This framework allows us to identify risks at all levels of our business so that they can be appropriately managed and mitigated. Under the framework AGL has also implemented additional mechanisms to deliver consistency with the requirements of monitoring and mitigating natural hazards under the *Security of Critical Infrastructure Act*.

Additionally, we integrate the consideration of physical climate risks into our decision-making processes. This includes embedding climate risk reviews within our ESG decision-making framework so that strategic and operational decisions consider potential climate-related physical risks.

#### Scenario 5 - Slow transition with no carbon constraint

Temperature	Electricity	Electrification and	Renewable	AGL coal-fired power station closures
outcome	demand growth	CER uptake	build rates	
~2.6° (RCP4.5)	Low Medium High	Low <b>Medium</b> High	<b>Low</b> Medium High	Modelled outcome Bayswater: 2045 Loy Yang A: 2035

Under Scenario 5, a slower economic environment would see an unwinding of existing climate targets and schemes, resulting in a slowdown in renewable investment. This would create an environment in which coal-fired power stations would remain in the system significantly longer than is currently expected to occur, with black coal-fired power stations still remaining in the NEM in FY50.

Under this scenario, system reliability risks and operational challenges would be posed by extending operational lifetimes across the nation's ageing coal-fired generation fleet, with restricted access to capital to fund new investments exacerbated by an environment of investment uncertainty. AGL considers this scenario to be of low likelihood and low feasibility, given domestic and international policy and global debt and equity market expectations remain largely committed to decarbonisation and a net zero future.

Under Scenario 5 AGL's coal-fired power stations would remain operational beyond our planned closure dates. It is not part of our plan to extend closure dates for our coal-fired power stations. Exposure to physical climate hazards for AGL's assets could also be increased in this higher warming scenario. AGL remains committed to our closure plans for our coal-fired power stations, and we will continue to add new renewable and firming capacity to deliver energy for our customers and enable the responsible transition away from coal.

#### AGL's contribution to a below two degrees outcome

Our analysis indicates that AGL's electricity generation operational outlook – including the targeted closure dates of our coal-fired power stations – is consistent with a pathway for the NEM that is aligned to limiting warming to below 2 degrees, as shown in Scenario 3. However, achieving this outcome would require a coordinated system-level approach to decarbonisation across the electricity sector and the broader Australian economy, and commensurate action at a global scale.

Overall, the modelling shows that there are multiple potential pathways for the electricity system to meet a carbon constraint aligned to a below 2 degrees warming outcome, and AGL's strategy is well placed to support this transition. As noted on pages 19-23 (Pathway to net zero – Scope 1 and 2 emissions), we are continuing to build out our pipeline of renewable and firming development options, and we are focused on transforming these options into high quality projects that we will invest in over the coming decade.

# What we stand for

AGL advocates for a responsible energy transition that balances energy reliability and affordability with the need to decarbonise, and supports the Australian government's commitment to the Paris Agreement.



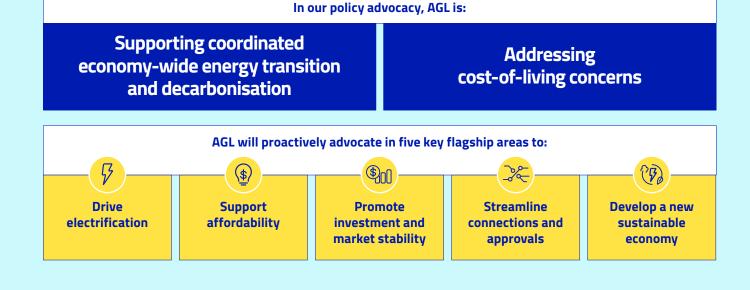
Our policy advocacy is broad and is focused on keeping customers front of mind as the energy system transitions, and pursuing outcomes that enable the economy and communities to thrive.

Our advocacy positions also look to drive a level playing field where regulatory and policy frameworks support organisations with credible transition plans so that they are not disadvantaged.

We are committed to positive policy advocacy regarding climate change and the energy transition, seeking to find practical solutions to address challenges and collaborating to deliver the right outcomes. We engage regularly, widely and transparently so that we are well informed of our stakeholders' needs, and so that government and regulators benefit from our deep energy expertise when setting policy and regulatory direction.

Both directly and through our industry associations, we are working to influence the right regulatory and market settings to accelerate the decarbonisation of Australia's energy markets so that AGL can deliver on our strategy and the pathways set out in this CTAP, and so that the energy sector as a whole can play its part in delivering on Australia's ambition for a net zero future.

As outlined below, action in five key areas is needed to drive Australia's decarbonisation in pursuit of the Paris Agreement goals. Our advocacy positions relating to the policy and regulatory settings needed to deliver action are summarised in this section.





#### **Drive electrification**

Electrification of homes and businesses, together with improving energy efficiency and productivity, is a key enabler for the transition to a modern and low-emissions energy future

We support:

- Stronger standards on buildings, vehicles, and appliances to encourage fuel switching and the uptake of electrification, and to facilitate significant improvements to energy efficiency and productivity.
- Market and network reforms that support CER integration and enable customers to unlock and access value from CER investments, including reforms that embed the role of customers to lead the uptake and integration of CER, in recognition that customer choice and competition are key to delivering innovation and value to customers.
- Improved pricing structures and network tariffs that support the accelerated uptake of CER, EVs, infrastructure and flexible charging.
- Network regulatory reform to drive significant improvement in electricity network efficiency and reductions in network costs to maximise CER value for all customers
- No new residential gas connections, and targeted restrictions and incentives to support the electrification of new and replacement gas appliances.
- A pathway for the CER installation workforce of the future, including upskilling capabilities and streamlining regulatory processes.



#### Support affordability

Supporting energy affordability plays an important role in building stakeholder and customer trust through the energy transition and preventing government interventions, that could be counter to an orderly energy transition and accelerated decarbonisation

We support:

- Wholesale market reform that seeks to drive continued investment in generation and leverages competitive markets to deliver efficiently priced lowest-cost wholesale energy over the long term
- Network tariff reform that is simple, actionable, and fair for all customers.
- Provision of enduring concessions and bill relief for customers, or policies that deliver ongoing reductions in energy costs for customers through deployment of CER or home and appliance upgrades.
- Provision of durable, accessible bonus tax deductions and access to funding to **businesses** for items that will improve energy performance and enable decarbonisation.
- Policies that lower financial barriers to access and support customers experiencing vulnerability and other customers who may have challenges with electrifying (e.g. renters).



# Promote investment and market security

Efficient, well-designed energy markets and policy certainty are necessary to deliver the investment in renewables, storage, and firming to enable the energy transition

We support:

- Climate and energy policy stability, to drive innovation and productivity, and promote confidence in new investment in renewable generation and firming (including gas-powered generation and long-duration storage).
- Market reforms to recognise and value all the new services the future renewable, reliable and affordable electricity system needs, in particular the provision of essential system services and long-duration firming. This includes **gaspowered generation** as a firming technology to provide grid security and reliability through the energy transition, including through renewable droughts<sup>1</sup>.
- Market based incentives for lowemissions generation and firming to meet government objectives to accelerate the energy transition (e.g. through certificate-based schemes).
- Incentives and other support that deliver efficient coordination and integration of CER resources in the electricity market and provide the right signals to invest.
- Policy settings and support that
  manage the impacts of declining gas
  supply, including supply side measures
  (such as LNG import projects located
  close to customers and leveraging
  existing pipeline and storage, appropriate
  development of new domestic supplies)
  and demand side measures which
  support customers to reduce gas
  consumption through electrification.
- Incentives, frameworks, targets, and institutions (like ARENA and CEFC) to support the development, commercialisation and scaling of new technologies to enable the energy transition, such as hydrogen, pumped hydro and offshore wind, as well as development and commercialisation of negative emissions technologies such as carbon capture and storage.

<sup>.</sup> Renewable droughts, also referred to as dunkelflaute, are periods of much lower than usual renewable output, usually because of very low wind generation output over an extended timeframe and large geographic area.



# Streamline connections and approvals

Efficient and coordinated approvals and connections processes are essential to facilitate long-term investment decisions and the successful and timely delivery of new energy projects to keep the energy transition on track

We support:

- Streamlining and fast-tracking arrangements for robust regulatory, planning, environmental, and connections approvals for grid-scale assets and at commercial and industrial sites.
- Improved system planning and certainty regarding transmission developments and renewable energy zones.
- Nature-positive and balanced environment reform that provides greater certainty on the approval trajectory for new infrastructure developments.
- Transparent and consistent benchmarks and guidelines for consultation, compensation and benefit sharing for landowners and communities (including First Nations communities).
- Combined government and industry engagement with communities to increase awareness and acceptance of new energy projects to continue to build social licence.



# Develop a new sustainable economy

The transformation of the energy sector is one of the key challenges and opportunities facing Australia in this century. By setting optimal policy to facilitate efficient investment in new energy infrastructure, a modernised energy sector can support a more productive and secure Australian economy, with lower emissions

We support:

- Australia's commitment to the
   Paris Agreement, and economy-wide ambition to limit temperature increase to 1.5 degrees. We acknowledge the role of the electricity sector in electrifying other sectors, but also the practical limits of what Australia's energy sector can contribute while keeping energy reliable and affordable for all customers. We support the pursuit of a level playing field such that regulatory and policy frameworks support organisations with credible transition plans.
- Policies that deliver a long-term plan for achieving net zero for the energy sector, and steps to provide greater certainty regarding closure dates for the NEM's thermal generators to support an orderly energy transition and the timely development of replacement generation.
- Ambition, policy frameworks, and mechanisms for emissions reductions in other sectors, including the operation of the Safeguard Mechanism and the development of new low-emissions industries, to increase contributions to economy-wide emissions reduction.
- Robust carbon markets that deliver high quality offsets, through frameworks with credible offset standards that increase confidence in claimed reductions. Emissions reduction approaches that include reliance on carbon offsets should be guided by a holistic approach that aligns with the mitigation hierarchy.
- Coordinated action and government support to address workforce transition and the creation of new industries.

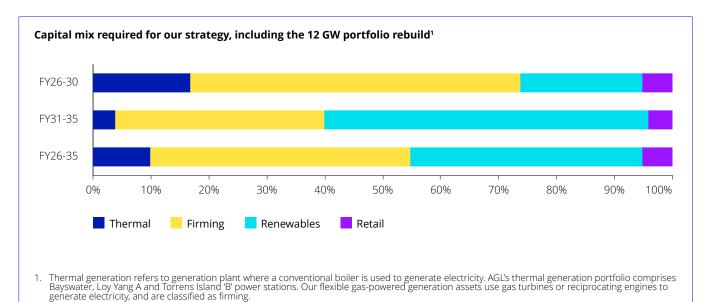
# Financial alignment

Consideration of our climate transition plans is embedded in our approach to capital planning and remuneration.



#### Capital allocation to support the energy transition

AGL has and will continue to evolve our capital allocation<sup>1</sup> over time to support an energy portfolio focused on renewable and firming assets and to connect every customer to a sustainable future. Our target is to add 6 GW of new renewable and firming capacity via building and contracting by the end of FY30, with an ambition to expand this to 12 GW<sup>2</sup> by the end of 2035, and we will seek options to accelerate where possible. We are also investing in customer decarbonisation including targeting 300 MW of customer assets installed behind the meter by FY27, including some assets that will be owned, financed and operated by AGL.



#### Capital allocation evolution3

Period	Capital allocation for climate solutions
FY26-30	70%
FY31-35	64%
FY26-35	67%

To meet our 12 GW energy portfolio transition ambition, grid-scale renewable and firming capacity is expected to be supplied to AGL from:

- · Projects developed and funded on AGL's balance sheet, utilising available debt capacity and operating cash flows;
- · Projects funded by third parties and backed with offtakes from AGL; and
- · Projects funded by partnerships and backed with offtakes from AGL.

AGL will optimise our balance sheet based on capital availability, risk allocation and our future energy portfolio needs. We estimate that approximately \$10 billion will be funded on our balance sheet across the course of AGL's energy portfolio transition. This investment will be heavily weighted towards a mix of short- and long-duration firming assets, while renewable generation will be mostly sourced via offtakes and partnerships.

We have set a target to have at least 3 GW of grid-scale batteries by FY30, and we are already well underway in developing our short-duration battery portfolio, with 1.3 GW<sup>4</sup> in delivery or under construction and an additional 0.9 GW of batteries with a clear pathway to final investment decision. In 2025 we also acquired two early-stage pumped hydro projects in the Hunter region, which have the potential to provide 1.4 GW of 10-hour long-duration energy storage.

In the longer term, a larger portion of our balance sheet investment is expected to be made toward long-duration firming assets, with AGL expecting to invest across a range of project types. Our long-duration portfolio is expected to include a mix of long-duration batteries, pumped hydro, gas-powered generation and other new technologies (like Raygen). AGL continues to monitor the evolution of these technologies and has optionality across all these types of projects.

AGL will also continue to deploy capital to support our retail business and existing thermal assets. Future investment in our existing thermal fleet will be important to ensure safety, flexibility, and availability until closure, recognising the key role thermal generation plays in providing reliable and affordable electricity during the energy transition. Capital investment in our retail transformation and electrification offerings will also be crucial in connecting every customer to a sustainable future.

- 1. Capital allocation is broader than capital expenditure and AGL has aligned our definition of capital allocation to that of capital deployment in the Australian Sustainability Reporting Standards to be, "the amount of capital expenditure, financing or investment deployed".
- 2. Our ambition to add 12 GW of new renewable and firming capacity by the end of 2035 also includes consumer energy resources.
- 3. AGL defines climate solutions as grid-scale renewable generation, grid-scale batteries and pumped hydro, retail electrification and decentralised sustainable business energy solutions for customers and retail transformation.
- 4. As at August 2025. Includes Tomago Battery, and does not include contracted battery capacity.

#### Capital allocation principles

AGL has a strategic approach to capital allocation. We aim to deploy capital to maximise value for shareholders, maintain financial strength and flexibility, and support continued investment in-line with our strategy. Maintaining, transitioning and growing our energy portfolio will require substantial capital investment throughout the next decade.

AGL has a robust capital allocation framework to support the delivery of our strategy and complement AGL's ESG decision-making framework in informing the allocation of capital year-on-year.

#### Capital allocation framework

AGL's capital allocation framework governs a disciplined allocation of capital to deliver on our strategy while maximising value and shareholder returns. Our capital allocation principles set out below guide capital investment decisions. Our principles are:

- 1. Maintain strong credit profile: Maintain Baa2 investment grade credit rating.
- 2. Sustainable dividends: Dividend payout ratio of 50-75% of Underlying Profit after tax, franked to the extent possible.
- 3. **Ongoing investment:** Continue to invest to strengthen and drive value from our core business to realise opportunities through the energy transition
- 4. **Capital allocation:** Investment decisions are tested against additional returns to shareholders, through increased dividends and/or return of capital.

#### Capital and financial planning

AGL's enterprise-wide ESG decision-making framework is used to promote consistency in how ESG issues are considered during decision-making processes and encourage early consideration of future emissions associated with new projects, products or acquisitions. The potential future cost of carbon offsets is taken into consideration as part of our financial planning and capital approvals to support our stated target of being net zero for Scope 1 and 2 emissions following the closure of our coal-fired power stations.

#### Sustainable finance taxonomies

Sustainable finance taxonomies are classification systems that define and categorise economic activities based on their environmental impact, guiding investments toward activities which can be considered environmentally sustainable, covering areas such as climate change mitigation, climate change adaptation, water and marine resources, circular economy, pollution prevention and control, and biodiversity.

The Australian Sustainable Finance Taxonomy has been released by the Australian Sustainable Finance Institute (ASFI), and aims to provide a standardised approach for identifying and reporting on sustainable finance activities in Australia to support the transition to a resilient net zero economy. It is currently available for voluntary use in Australia.

While gas-powered generation is not considered a "green" activity for funding purposes, it may under some circumstances be treated as a "transitional" activity under methodologies outlined in the taxonomy that require transition plans for reducing emissions that are aligned with a 1.5 degrees temperature outcome.

AGL has taken guidance from the taxonomy when determining categories for reporting our expected capital allocation.

# Creating value in a low-carbon world

#### Green revenue

AGL monitors and aims to increase revenue from products and services that provide climate solutions and support our customer to decarbonise. Green revenue<sup>1</sup> includes revenue generated from renewable electricity generation, commercial solar sales and PPAs, green and carbon neutral products, customer solar, certificate sales and green charges passed through to customers.

We have set a target to increase green revenue by 85% by FY27 compared to a FY19 baseline, and we expect climate-related revenue streams to continue to grow as we deliver on our strategy through the transition.

# Incentive plans driving achievement of decarbonisation objectives

AGL's executive remuneration framework is designed to drive the successful implementation of AGL's strategy, including the commitments outlined in the CTAP. This framework aims to create long-term, sustainable value for shareholders by aligning executive incentives with the company's strategic goals.

Climate-related metrics are incorporated into short-term incentive (STI) and long-term incentive (LTI) plans to incentivise executives and senior leaders on climate change objectives and the energy transition.

#### Short-term incentive plan

The STI plan rewards executives for delivering financial returns and progressing AGL's strategy. The key focus is to deliver against financial and non-financial strategic objectives so that operational goals are achieved. This recognises the importance of AGL generating a sustainable cash-flow to support our energy portfolio transition and future growth and deliver progress against our strategy. Climate-related objectives relate to the build of the gross development pipeline which aligns to AGL's portfolio transition strategy, and electrification objectives, which demonstrates AGL's commitment to our ambition of connecting customers to a sustainable future.

#### Long-term incentive plan

The LTI plan rewards executives and senior leaders for delivering against the AGL strategy (including CTAP commitments) to deliver long-term value creation for shareholders and other stakeholders. The performance metrics are selected to align with AGL's strategic objectives of connecting every customer to a sustainable future and transitioning our energy portfolio to drive shareholder value.

AGL's LTI plans have included climate transition metrics since the FY21 LTI grant. Climate transition metrics are included in the active LTI plans which are due to be performance tested at the end of FY26 to FY28. Details of the metrics included in each of these plans are available in AGL's 2023 to 2025 Annual Reports.

The climate transition metrics included in the FY26 LTI plan due to be tested at the end of FY29 comprise:

- Emissions intensity of electricity supplied (tCO<sub>2</sub>e/MWh).
- New renewable and firming capacity (MW)

AGL will continue to include climate transition metrics aligned to our Climate Transition Action Plan in future LTI offers.

#### How our climate transition metrics link to the decarbonisation targets outlined in the CTAP

AGL's FY26 LTI plan includes climate transition metrics that are aligned to the delivery of our CTAP.

AGL does not directly link remuneration to our shortterm absolute Scope 1 and 2 emissions reduction targets. A reduction in emissions could be achieved due to inefficient operations or unplanned outages, which negatively impact AGL's operational availability and profitability. Setting an absolute emissions target may unintentionally incentivise these outcomes. To balance these factors and encourage efficient decarbonisation, AGL developed the emissions intensity of electricity supplied metric.

The emissions intensity of electricity supplied metric incentivises reducing the proportion of electricity to meet customer demand that is sourced from coal-fired generation, as well as the expansion of operated and contracted renewable and firming capacity, and increasing customer electrification.

Additionally, the new renewable and firming capacity metric included in the FY26 LTI plan aligns to AGL's portfolio rebuild plans, including our target to add an additional 6 GW of renewable and firming capacity by FY30. Delivery of new renewable and firming capacity is key to enabling the responsible exit of our coalfired power stations in the targeted timeframes to meet our long-term Scope 1 and 2 net zero target.

<sup>1.</sup> This metric is disclosed in our Remuneration Report as revenue uplift from green energy and carbon neutral products and services.

# Transparent engagement and reporting

AGL is committed to communicating transparently with our stakeholders about our decarbonisation journey.



# Responsible policy advocacy and stakeholder engagement

As a significant participant in Australia's energy transition, it is important that we engage with our stakeholders transparently to understand and consider their perspectives when making decisions.

The interconnected nature of the energy industry requires all participants to work towards common goals. This will require coordinated policy action from governments along with collaboration between private and public sectors. We have set out our perspectives on key aspects of the environment in which we operate on pages 13-16 (Operating environment), and our key areas of policy advocacy on pages 48-51 (What we stand for).

AGL is committed to conducting all our direct and indirect policy engagement<sup>1</sup> activities in a responsible, consistent and transparent manner, encompassing environmental, social and governance considerations. This applies across all AGL's subsidiaries and operational jurisdictions.

Our policy engagement and lobbying activities include but are not limited to submissions to government and regulatory body consultations, meetings with government and peak industry body officials, engagement with industry associations, and media publications and interviews.

AGL advocates for responsible energy transition that delivers reliable and affordable energy while reducing emissions and building trust with customers, workers and communities. We support the objectives of the Paris Agreement and continue to seek to advocate for Paris-aligned policy action through all direct and indirect policy engagement and lobbying.

AGL's commitments in relation to policy engagement and lobbying are as follows:

#### We will We won't

- Publish submissions made to official government processes on our website (excluding those containing commercially sensitive information)
- Monitor the policy positions and public advocacy in relation to climate change of industry associations of which we are a member, and annually disclose memberships, membership fees, and areas where AGL's position on climate change differs materially from the associations of which we are a member, in accordance with our Industry Association Membership Policy
- Provide a summary of AGL's position on climate-related policies along with examples where we have advocated for these
- Undertake any lobbying that is inconsistent with disclosed advocacy positions
- Make any monetary or in-kind political donations to political parties, either directly or through third parties, in accordance with our Political Donations Policy
- Provide funding or support to organisations or groups that spread climate misinformation and/or actively lobby against climate action

#### Stakeholder engagement during CTAP development

As Australia's largest corporate greenhouse gas emitter, we recognise that many stakeholders are intently interested in our decarbonisation plans. During development of this CTAP, we engaged with key stakeholders, including investors, investor groups, lenders and environmental stakeholders. The purpose of these engagements was to understand stakeholder expectations and perspectives as we developed this plan. To inform our targets and advocacy we monitored key factors, including government climate policies, international developments, and developments in the energy sector

In addition to this CTAP-specific engagement, AGL has also engaged with other stakeholder groups during the development of other initiatives or commitments that have been referenced in this CTAP. This includes engagement with our workforce and unions regarding our people transition principles, and engagement with customer advocates (including the AGL Customer Council) regarding our approach to supporting customers.

We appreciate the engagement of our shareholders and the insights and sentiments that informed the development of this plan.

<sup>1.</sup> Indirect policy engagement refers to engagement via third parties such as industry associations who lobby on behalf of industry participants. Direct policy engagement refers to AGL's direct interactions with policy makers/regulators.

#### Reporting

We are committed to providing transparent disclosures to help stakeholders understand the climate-related implications of our strategy and assess the progress we are making against our plans.

- We will report progress against the targets set in our Climate Transition Action Plan through our Annual Report each year.
- We will obtain independent assurance over our annual Scope 1, 2 and 3 emissions to allow progress against our emissions reduction targets and ambitions to be verified.
- We will report on governance, risk management, strategy and metrics and targets in relation to climate change through our Annual Report each year, in line with incoming AASB S2 requirements that will apply to AGL from FY26.
- We will publish submissions on climate and related public policy matters on our website (excluding those containing commercially sensitive information).
- In accordance with our Industry Association Membership Policy, we will publish the industry associations of which we are a member, along with fees paid, areas where our policy positions (including those relating to climate change) differ materially from that of the industry association, and whether the results of ongoing monitoring have led to further engagement or a decision to cease membership.

#### Future climate transition plans

We expect to publish updated climate transition plans in 2028, concurrently with our FY28 full year financial results. In the event of material changes to our strategy during this period, we may elect to publish updated climate transition plans in advance of this date.

#### For more information

- AGL's Political Donations Policy and Industry Association Membership Policy are available on our <u>website</u>.
- Our policy submissions are available in the news centre on our <u>website</u>.
- Visit the <u>ESG Data Centre</u> for details of our industry association memberships, including fees paid, and the outcomes of our annual industry association review.

# Our submission to the Climate Change Authority

The federal government is currently in the process of considering its 2035 interim emissions target, which represents Australia's 2035 Nationally Determined Contribution (NDC) under the Paris Agreement. The NDC must be submitted to the UNFCCC by September 2025.

The government will consider advice from the Climate Change Authority (CCA) when setting the 2035 target. In 2024, the CCA consulted on the appropriate ambition for Australia's NDC. In its advice, the CCA suggested that an appropriately ambitious but achievable target would be in the range of a 65-75% reduction on 2005 levels by 2035.

AGL's submission supported the target range identified by the CCA in its advice, as well as the pursuit of a 1.5 degree ambition, and noted the challenges associated with achieving these. In our submission we outlined several of the opportunities, risks, and barriers to achieving deeper emissions reductions in the energy and electricity sector. Key messages included that:

"AGL strongly supports Australia's commitment to the Paris agreement to ensure the increase in global average temperature is held to well below 2 degrees and importantly to pursue all efforts to limit temperature increase to 1.5 degrees."

"AGL continues to support Australia setting ambitious economy wide emissions reductions targets consistent with delivering Australia's share of national contributions to limit global temperature rise to 1.5 degrees, or as close as can be practically and economically delivered."

"Achieving emissions reductions consistent with a global 1.5 degree ambition, and ensure warming is held well below 2 degrees, will require significant emissions reductions across all sectors of the economy. We acknowledge that sectoral emissions plans are critical to achieving any target and the challenges and opportunities, as well as the nature of the emissions, across all sectors are varied. These sectoral emission reduction plans will be important for being able to collectively meet targets."

A copy of AGL's submission to this process is available on AGL's <u>website</u>.

# Risks to CTAP delivery, glossary and limitations



#### Risks to CTAP delivery

**Timing of generator closures:** Extensions to the expected operating lifetimes of more emissions-intensive power stations in the NEM may slow the rate at which the grid decarbonises. The timing of third party-owned coal-fired power station closures, which may be brought forward voluntarily or as a result of plant failures, may also impact the expected order of power station closures, requiring older or more emissions-intensive power stations to continue to operate beyond forecast closure dates to meet system requirements.

Energy policy/market structure: The evolving structure of electricity and gas markets may not provide sufficient incentives to deliver new infrastructure to support the energy transition at the pace required. This may relate to a lack of incentives for new low-emissions generation and storage, transmission and distribution augmentation, integration of distributed energy and other demand-side resources, and resources that provide essential system services. Stable, supportive energy policy and regulation is key to driving investment and streamlined project delivery for the energy transition. Maintaining stability against the backdrop of potential changes in energy policy direction, particularly with changes in government, and discoordination between federal and State government policy, continues to present challenges. Investment uncertainty may constrain access to capital to fund the energy transition.

**New project delivery:** In addition to conducive policy to drive investment in the build-out of renewables, firming and supporting transmission infrastructure, non-market barriers including planning approvals, connection processes, supply chain constraints including project construction workforce availability and social licence issues may slow the pace of project delivery.

Increase in actual or perceived reliability and system security risks: An increased risk of actual or forecast load-shedding events, where there is insufficient capacity available to meet customer needs, may heighten the demand for existing dispatchable capacity to remain connected to the NEM to contribute to system reliability. Efforts to manage system security of a grid comprising a much higher penetration of variable renewable generation and inverter-based resources may take longer than expected.

Access to capital and other markets: A lesser investment appetite for funding renewable and firming projects, driven by increased perceived project risks, unattractive financial returns, and/or shifting focus away from decarbonisation of investment portfolios, may result in challenges to securing the project funding needed to fund the energy transition. Owners of coal-fired generation assets may experience reduced access to debt, equity, insurance, and other markets that support capital requirements for executing a planned transitional pathway. In addition, competition for capital to fund new growth assets may impact project financial viability and delivery timeframes.

**Energy demand growth:** Electricity demand may materially increase, as a result of electrification and other new demand sources (e.g., data centres), requiring substantially more dispatchable capacity to meet annual energy requirements. This may result in higher generation output and emissions and delay the closure of coal-fired power stations.

**Consumer electrification uptake:** Without strengthened government support, barriers to electrification rates, including real and perceived cost of electrification and accessibility of resources, may materially slow the outlook for electrification uptake and the phaseout of domestic gas usage.

**Energy affordability impact:** Managing the cost impacts of the energy transition for energy consumers and taxpayers at large will be a critical consideration for the energy transition, as well as ensuring that no one is left behind. This may drive resistance to realising an accelerated energy infrastructure build-out program.

**Technology development and costs**: Capital costs for new renewable and firming assets may not decline as forecast, resulting in greater demand for lower-cost generation or the continued operation of existing power stations.

**Use of offsets for emissions targets/ambitions:** Use of offsets for residual emissions to meet our net zero Scope 1 and 2 target and Scope 3 ambition will be dependent on future availability and commercial viability of carbon offsets or similar instruments; issues around integrity, liquidity and affordability of carbon offsets may affect the ability to follow this approach.

**Geopolitical and macroeconomic risks:** A range of possible geopolitical risks, such as international conflicts and trade disputes, and other forms of macroeconomic influences, may directly impact on government policy in the domestic energy sector, limiting the pace of transition of the electricity sector or restricting the ability for market participants to make operational decisions regarding their plant.

Climate change targets and methodologies: Data and methodologies relating to carbon budgets and accounting, which are in turn used to derive emissions trajectories and closure dates, may change over time and impact the modelling of pathways to meet climate targets. For instance, potential revision of methane fugitive emissions measurement and estimation practices may impact Scope 1 emissions accounting practices in the future.

**Environmental regulation**: Changing environmental regulation could materially affect the timing of asset closures across the NEM. Asset closures may be impacted by regulatory reforms relating to the emission of greenhouse gases, other pollutants, and/or particulates, changes in site and mine rehabilitation obligations, restrictions in land use and water rights, or other conditions in environmental licences.

### **Glossary of terms**

Term	Definition
AASB, AASB S2	Australian Accounting Standards Board; AASB S2 refers to 'Climate-related disclosures' standard
AEMO	Australian Energy Market Operator
Ambition	In this document, the word 'ambition' is used to refer to an intention to achieve an outcome, where outcomes are less certain or depend more strongly on external factors, and there may not be a specific plan of how this outcome will be achieved. Where an ambition is expressed as "by [year]" this relates to the end of the specified year unless otherwise specified i.e. 30 June for financial year ambitions or 31 December for calendar year ambitions.
BESS	Battery energy storage system
BTM	Behind the meter
C&I	Commercial and industrial
CCUS	Carbon capture, utilisation and storage
CER	Consumer energy resources (CER) refer to energy assets located at homes, businesses, or in vehicles. These resources may generate, store, and utilise energy, offering opportunities for optimisation. Examples include rooftop solar panels, battery storage systems, electric hot water units, and electric vehicles.
CIS	Capacity Investment Scheme: an Australian Government revenue underwriting scheme to accelerate investment in renewable electricity generation and clean dispatchable capacity such as battery storage.
CO <sub>2</sub> e	Carbon dioxide equivalent, a measure used to compare the emissions from various greenhouse gases on the basis of their global warming potential (GWP) by converting amounts of other gases to the equivalent amount of carbon dioxide (CO <sub>2</sub> ) with the same global warming potential.
CTAP	Climate Transition Action Plan
Cumulative customer assets installed	Cumulative customer behind the meter asset installations completed from FY24 - FY27 inclusive. Behind the meter assets can include, but are not limited to, solar PV, battery storage, electric vehicle chargers, and biogas systems.
Decentralised assets under orchestration	Decentralised assets under orchestration refers to the aggregation of flexible load and generation assets managed as a part of AGL's virtual power plant. Most of these assets are installed behind the connection point, and include assets such as residential batteries and solar, as well as flexible loads and backup generation systems at commercial and industrial customer sites. This includes smelters unless otherwise indicated.
Demand-side flexibility	Ambition for the capacity that can respond to AGL-initiated signals to orchestrate assets and the customer-led capacity that may respond to AGL's incentives to time-shift electricity or asset use.
Electrification	Includes energy asset upgrades resulting in fuel switching (e.g. EVs, cooking, heating and hot water in the home) as well as other products and services that enable uptake and optimise the value of those products.
ESG	Environmental, social and governance
EV	Electric vehicle
Firming	Dispatchable generation and storage resources that can be delivered as needed, including flexible GPG, batteries and pumped hydro.
Flexible GPG	Gas-powered generation plants that can ramp up or down output quickly to meet demand.
Flexible fleet capacity	Includes grid-scale batteries, virtual power plant, hydro, flexible GPG and coal-fired flexing capacity that is operated, contracted, orchestrated, under construction or in delivery.
Flexible generation capacity	Includes AGL's operated grid-scale battery, hydro, flexible GPG and coal-fired flexing capacity.
Gross (target, emissions)	Gross greenhouse gas emissions targets reflect the total changes in greenhouse gas emissions planned within the entity's value chain (as opposed to net greenhouse gas emissions targets, which are the entity's targeted gross greenhouse gas emissions minus carbon offsets).
GPG	Gas-powered generation
Green revenue as a % of total revenue	The percentage of total revenue derived from green energy and carbon neutral products and services, based on the following:
	Total revenue represents AGL's total reported revenue.
	<ul> <li>Green energy revenue represents green revenue including state-based green schemes; Renewable Energy Target (RET) revenue from green charges passed through to customers; and other revenue from state- based charges passed through to customers.</li> </ul>
IFRS, IFRS S2	International Financial Reporting Standards; IFRS S2 refers to 'Climate-related disclosures' standard
Integrated resource provider	A participant in the NEM with assets that have bi-directional energy flows that may generate and consume energy and provide ancillary services. This includes grid-scale storage, hybrid facilities and aggregators of small generation and storage units.
IPCC	Intergovernmental Panel on Climate Change
ISP	AEMO Integrated System Plan (2024)
LTI	Long-term incentive
MW, GW, TW	Megawatt, gigawatt, terawatt
MWh, GWh, TWh	megawatt hour, gigawatt hour, terawatt hour

Term	Definition	
NEM	National Electricity Market	
Net (target, emissions)	Gross greenhouse gas emissions minus any offsets	
Net zero	Net zero refers to a state in which, after feasible direct emissions reductions have been undertaken, the amount of residual greenhouse gas emissions produced is balanced by the amount addressed by carbon offsets or otherwise removed from the atmosphere.	
New renewable and firming capacity	In the context of AGL's targets/ambitions, refers to new renewable and firming capacity in construction, delivery or contracted from FY23 onwards. Excludes projects that were already operational during FY23. For our ambition to add 12 GW of new renewable and firming capacity by the end of 2035, this also includes consumer energy resources.	
NGER	National Greenhouse and Energy Reporting Act 2007	
Operated boundary	The AGL operated boundary includes facilities for which AGL has operational control as defined by the National Greenhouse and Energy Reporting Act 2007.	
Paris Agreement	An agreement made at COP21 to address climate change, with the central aim of this agreement being to limit warming this century to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit warming even further to 1.5 degrees Celsius above pre-industrial levels, with limited overshoot	
PPA	Power purchase agreement	
RCP	Representative concentration pathway: concentration pathways for greenhouse gases and aerosols, demonstrating possible future emissions and radiative forcing (i.e. temperature intensity) scenarios for the world until 2100, as defined by the IPCC.	
Scope 1	Direct greenhouse gas emissions from operated facilities	
Scope 2	Indirect greenhouse gas emissions arising from the consumption of purchased electricity, heat or steam by operated facilities	
Scope 3	Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. transportation and distribution losses) not covered in Scope 2, outsourced activities, waste disposal, etc.	
STI	Short-term incentive	
Target	In this document, the word 'target' is used to refer to a commitment which is underpinned by plans, meaning we have a higher degree of certainty over the outcome. Where a target is expressed as "by [year]" this relates to the end of the specified year unless otherwise specified i.e. 30 June for financial year targets or 31 December for calendar year targets.	
Thermal	Thermal generation refers to generation plant where a conventional boiler is used to generate electricity. AGL's thermal generation portfolio comprises Bayswater, Loy Yang A and Torrens Island 'B' power stations.	
t, kt, Mt	Tonnes, kilotonnes, Megatonnes	
VPP	Virtual power plant	
WEM	Western Australia's wholesale electricity market	

#### More information

AGL discloses climate-related information across a range of documents. More information is available in the following documents.

Area	References
Annual and historical emissions and emissions-intensity data; broader	2025 Annual Report
operational and ESG data	FY25 ESG Data Centre
Assurance	2025 Annual Report
Carbon offsets	Carbon Offsets Policy
Climate-related governance	2025 Corporate Governance Statement
	2025 Annual Report
	AGL Board and Committee Charters
Climate transition metrics (Remuneration Report)	2025 Annual Report
Climate-related risks and opportunities	2025 Annual Report
	2024 Annual Report (detailed disclosures on physical risk)
Policy submissions	News Centre on AGL website
Industry associations - policy, memberships, fees paid, and annual review	2025 ESG Data Centre
	Industry Association Membership Policy
First Nations support and engagement	Reconciliation Action Plan
Community engagement and investment	2024 CEC Best Practice Charter Report
	Community Engagement Policy
	FY25 Annual Report

#### Limitations

AGL's 2025 Climate Transition Action Plan (CTAP) will be subject to a non-binding shareholder advisory vote at the AGL 2025 Annual General Meeting (AGM). It has not been prepared as financial or investment advice or to provide any guidance in relation to the future performance of AGL. Nothing in this CTAP should be construed as either an offer or a recommendation to buy or sell AGL shares. This CTAP includes a number of forward-looking statements. The words 'anticipate', 'believe', 'expect', 'project', 'forecast, 'estimate', 'likely, 'intend', 'should', 'could', 'may, 'will', 'commit', 'target', 'ambition', 'plan', 'aim' and other similar expressions are intended to identify forward-looking statements. Any forward-looking statements are based on the current expectations, best estimates and assumptions of AGL's management as at the date of preparation, and may be affected by a range of external factors which could cause actual results to differ materially, including but not limited to, actual energy demand, regulatory and policy landscape, technology development and general economic conditions. These forward-looking statements are not guarantees or predictions of future performance, and are subject to known and unknown risks, uncertainties and may involve significant elements of subjective judgement and assumptions as to future events that may or may not be correct and be beyond AGL's control. Except as required by applicable regulations or by law, AGL does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Forward-looking statements are representative of our best estimate as of the date of this CTAP. Past performance cannot be relied on as a guide to future performance. No representation or warranty, express or implied, is given as to the accuracy, completeness or correctness, likelihood of achievement or reasonableness of any forward-looking information contained in this CTAP. AGL cautions against reliance on any fo

# Appendix: Scenario modelling



# During FY25, AGL undertook scenario modelling of the Australian energy market to gain insights into potential transition pathways for the Australian energy system.

AGL engaged ACIL Allen (ACIL) to undertake market modelling of the NEM and the Western Australian Electricity Market (WEM), as well as qualitative gas market analysis. ACIL's market modelling utilises 'PowerMark', a simulation model which includes a program to dispatch and settle the electricity market in a similar way to how Australian electricity markets operate to ensure that demand is met in an optimum fashion. PowerMark introduces new investment when prices are sufficient to meet the hurdle rate of different new investment technologies, factoring in government incentives where required to meet assumed renewable energy policy, and retires capacity at set retirement dates or when prices are insufficient for the economic viability of the given generator.

The scenarios modelled were developed in partnership with ACIL and primarily utilise externally referenceable assumptions for credibility and robustness of approach. We have aligned to AEMO's 2024 Integrated System Plan (ISP) scenario modelling assumptions for key assumptions including underlying electricity demand, carbon budgets and capital costs.

Additional disclosures on the modelling approach and AGL's strategic resilience assessment are presented in AGL's 2025 Annual Report, available on our <u>website</u>.

#### Scenario modelling assumptions

Key characteristics and assumptions for each scenario are outlined in the table below.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	1.5° rapid transition	Below 2° with unconstrained policy delivery	Below 2° with build constraints	Above 2° with build constraints	Slow transition with no carbon constraint
Narrative	Rapid decarbonisation and transformation of the Australian energy system to align to 1.5 degrees pathway, with the development of a green hydrogen export industry.	Australia's 2030 renewable energy target is delivered on time, with below 2 degrees-aligned carbon constraint driving longer term pathway to net zero by 2050.	Renewable build rates have been constrained to reflect current challenges to projects, resulting in delay to Australia's renewable energy target delivery. Below 2 degrees-aligned carbon constraint drives pathway to net zero emissions by 2050.	Renewable build rates have been constrained to historical levels, resulting in delay to Australia's renewable energy target delivery and an above 2 degreesaligned emissions pathway. Australia still achieves net zero energy emissions by 2050.	Economically driven energy market pathway in an environment of slow economic growth and absent any climate policy drivers.
Temperature outcome <sup>1</sup>	<b>1.5°</b> (RCP1.9)	<b>1.8°</b> (RCP2.6)	<b>1.8°</b> (RCP2.6)	<b>~2.6°</b> (RCP4.5)	> <b>2.6°</b> (RCP4.5)
NEM Carbon budget (2025 - 2052) <sup>2,3</sup>	AEMO 2024 ISP Green Energy Exports: 357 MtCO <sub>2</sub>	AEMO 2024 ISP Step Change - 681 MtCO <sub>2</sub>	AEMO 2024 ISP Step Change - 681 MtCO <sub>2</sub>	AEMO 2024 ISP Progressive Change - 1203 MtCO <sub>2</sub>	None
Net zero emissions by 2050	Yes	Yes	Yes	Yes	No
Carbon pricing mechanism	Yes	Yes	Yes	Yes	No carbon price
Electricity demand	High – aligned to AEMO 2024 ISP Green Energy exports, but modified to delay hydrogen demand 5 years.	Medium – AEMO 2024 ISP Step Change	Medium – AEMO 2024 ISP Step Change	Medium – aligned to AEMO 2024 ISP Step Change but demand from electrification is per Progressive Change.	Low – AEMO 2024 ISP Progressive Change
AGL coal plant assumptions <sup>4</sup>	Modelled outcome  - Bayswater Sep 2029, Loy Yang A Sep 2029	Modelled outcome  - Bayswater Dec 2033, Loy Yang A Dec 2033	Aligned to AGL targeted closure dates – Bayswater Dec 2033, Loy Yang A June 2035	Aligned to AGL targeted closure dates – Bayswater Dec 2033, Loy Yang A June 2035	Modelled outcome  - Bayswater Dec 2035, Loy Yang A June 2045 <sup>5</sup>
Renewable and firming build-out	Unconstrained	Unconstrained	Mild constraints <sup>9</sup>	Moderate constraints	Strong constraints

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
	1.5° rapid transition	Below 2° with unconstrained policy delivery	Below 2° with build constraints	Above 2° with build constraints	Slow transition with no carbon constraint
New entrant capital costs – NEM <sup>6,7</sup>	AEMO 2024 ISP Green Energy Exports	AEMO 2024 ISP Step Change	AEMO 2024 ISP Step Change	AEMO 2024 ISP Progressive Change	AEMO 2024 ISP Progressive Change
Fuel costs - NEM <sup>7</sup>	AEMO 2024 ISP Green Energy Exports	AEMO 2024 ISP Step Change	AEMO 2024 ISP Step Change	AEMO 2024 ISP Progressive Change	AEMO 2024 ISP Progressive Change
Hydrogen for power generation <sup>8</sup>	Available from 2030	Available from 2035	Available from 2033	Available from 2040	Not available
Timing of major transmission	EnergyConnect	EnergyConnect	EnergyConnect	EnergyConnect	EnergyConnect
	(Jul 2027)	(Jul 2027)	(Jul 2027)	(Jul 2027)	(Jul 2027)
projects	Heywood upgrade	Heywood upgrade	Heywood upgrade	Heywood upgrade	Heywood upgrade
	(Jul 2027)	(Jul 2027)	(Jul 2028)	(Jul 2030)	(Jul 2032)
	Humelink/VNI West	Humelink/VNI West	Humelink/VNI West	Humelink/VNI West	Humelink/VNI West
	(Apr 2029)	(Apr 2029)	(Apr 2030)	(Apr 2032)	(Apr 2034)
	QNI connect	QNI connect	QNI connect	QNI connect	QNI connect
	(Jul 2029)	(Jul 2029)	(Jul 2030)	(Jul 2032)	(Jul 2034)
	CopperString	CopperString	CopperString	CopperString	CopperString
	(Jul 2029)	(Jul 2029)	(Jul 2029)	(Jul 2029)	(Jul 2029)
	QNI	QNI	QNI	QNI	QNI
	medium upgrade	medium upgrade	medium upgrade	medium upgrade	medium upgrade
	(Jul 2030)	(Jul 2030)	(Jul 2031)	(Jul 2032)	(Jul 2034)
	Marinus Link 1	Marinus Link 1	Marinus Link 1	Marinus Link 1	Marinus Link 1
	(Jul 2030)	(Jul 2030)	(Jul 2031)	(Jul 2033)	(not developed)
	Marinus Link 2	Marinus Link 2	Marinus Link 2	Marinus Link 2	Marinus Link 2
	(Jul 2032)	(Jul 2032)	(not developed)	(not developed)	(not developed)
CER Uptake (Rooftop PV, BTM batteries)	<b>High</b> - AEMO 2024 ISP Green Energy Exports	Medium - AEMO 2024 ISP Step Change	Medium - AEMO 2024 ISP Step Change <sup>9</sup>	Low – Rooftop PV is aligned to AEMO 2024 ISP Step Change to 2030 and then follows progressive change growth rate. BTM batteries are aligned to Progressive Change.	Low – Rooftop PV is aligned to AEMO 2024 ISP Step Change to 2030 and then follows progressive change growth rate. BTM batteries are aligned to Progressive Change.

- Temperature rise relative to pre-industrial levels, by 2100.
- Carbon budgets are estimates of emissions levels over a period of time, which are expected to lead to a particular temperature range outcome, expressed within a likelihood range. These estimates are inherently uncertain and subject to revision over time.
- NEM carbon budgets are based on reference ISP scenarios. WEM carbon budgets were estimated by ACIL, based on the corresponding NEM trajectory.

- There is variability across scenarios in the outlook for the load profiles of coal-fired power stations, with flexible operations including a greater proportion of operations at minimum generation levels and some seasonal mothballing under scenarios 1-3.

  The modelling assumed a technical life of 60 years for brown coal generators and 50 years for black coal generators.

  Potential new entrant technologies included in the modelling: onshore wind, offshore wind, solar, BESS (2hr, 4hr and 8hr), pumped hydro (8hr), CCGT (Natural gas and hydrogen) and aeroderivative/reciprocating turbine (natural gas and hydrogen).
- New entrant capital costs and fuel costs for the WEM are per NEM assumption, with a cost premium for the WEM as defined by ACIL
- The model assumes green hydrogen is available as a viable fuel for power generation from the assumed date, and that GPG investments are able to switch to running on green hydrogen. In reality this would require substantial government support and grid-scale infrastructure upgrades. Hydrogen generation in the modelling may be viewed as a proxy for GPG that uses carbon offsets, or other low-carbon technologies.
- An iteration of Scenario 3 was also modelled which constrained wind build to historical rates and offset the reduction in wind generation with additional rooftop PV and BTM battery uptake to maintain the same carbon budget.

#### **Carbon budgets**

For carbon constrained scenarios, the carbon budget is achieved via iterative modelling of an implicit carbon price. While the implementation of a carbon price to Australia's electricity sector is not considered to be feasible, for the purposes of scenario analysis it provides a useful proxy for a variety of potential market mechanisms and policy drivers that could be put in place to drive decarbonisation outcomes. The assumed carbon budget is a key driver of modelled market outcomes for carbon constrained scenarios. The assumed carbon budgets are aligned to AEMO's 2024 ISP:

AEMO 2024 ISP Scenario	concentration pathway	Temperature pathway <sup>1</sup>
Green Energy Exports	RCP1.9	"AEMO's Green Energy Exports scenario sees a global drive to limit temperature rise to 1.5°C by the end of the century, and is best aligned to RCP1.9 which targets that 1.5°C outcome."
Step Change	RCP2.6	"Aligned to RCP2.6, which is consistent with a temperature rise less than 2°C by the end of the century and in line with the Paris Agreement."
Progressive Change	RCP4.5	"Aligned to RCP4.5, which is consistent with a temperature rise of approximately 2.6°C by the end of the century."

<sup>1.</sup> AEMO 2023 Inputs Assumptions and Scenarios Report.

The ISP Step Change carbon budget utilised in our modelling of below two degrees pathways in scenarios 2 and 3 is consistent with the climate ambition of the 'Step Change' scenario within AEMO's 2024 ISP, which AEMO states is in line with the Paris Agreement.

For the carbon budgets for Australia as determined for use by the CSIRO in their 2022 multi sector modelling that underpins the 2024 AEMO ISP, the uncertainty is presented as:

- For the Step Change Scenario, a 67% chance of limiting warming to below 1.8 degrees above pre-industrial levels, with no temperature overshoot.
- For the Green Energy Export Scenario, a 50% chance of limiting warming to 1.5 degrees above pre-industrial levels, with no temperature overshoot.

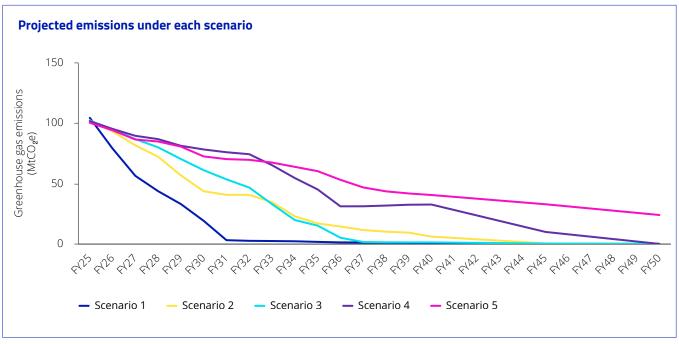
ACIL's modelling uses emissions intensity factors for fossil-fuel generators estimated by ACIL, based on the thermal efficiency of individual generators and the carbon content of the fuel source.

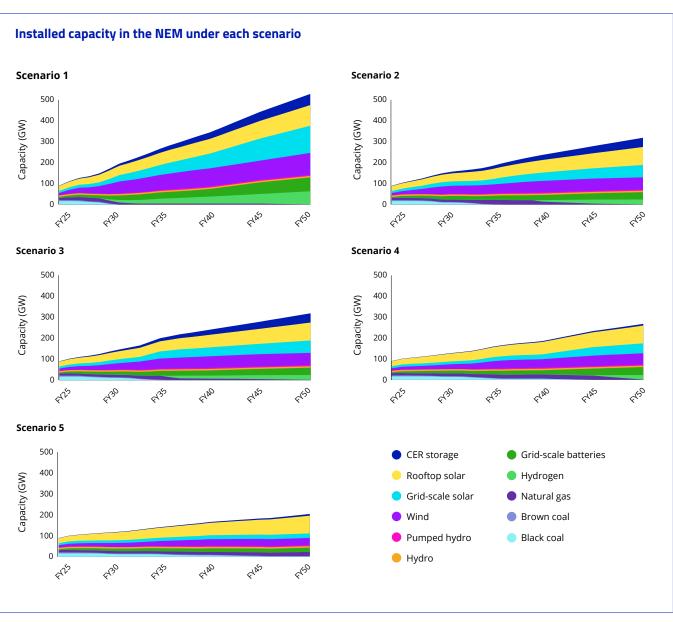
#### **Modelling results**

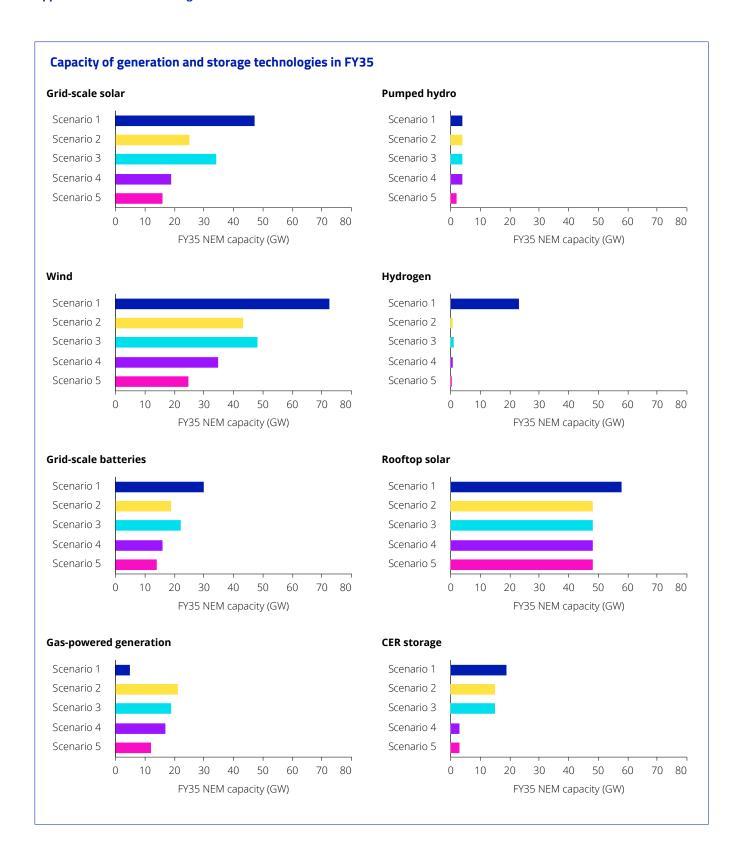
Across the modelled scenarios, the scale and pace of grid-scale renewables built over the next decade varies, with strong acceleration required to achieve the more ambitious transition scenarios (scenarios 1-3). The additional capacity is primarily from onshore wind generation, with annual rates for wind build-out of up to 2 to 3 times historical levels, particularly in the period to the early 2030s.

Concurrently with renewables build-out, additional firming is required across the modelled scenarios, met by a combination of grid-scale battery storage and gas-powered generation (GPG). GPG converts to run on hydrogen from the 2040s to deliver a net zero outcome by 2050 across scenarios 2-4; this occurs significantly earlier in Scenario 1 to meet the tight carbon budget.

A summary of the modelled outcomes for the NEM is presented below.







#### Implications for gas markets

ACIL also produced qualitative analysis on the implications of the modelled scenarios on the east coast and Western Australian gas markets. These were based on AEMO's 2024 Gas Statement of Opportunities (GSOO) scenarios, which broadly align with the 2024 ISP scenario narratives. The 2024 GSOO modelling extends to the mid 2040s. Extrapolating outlooks to 2050 indicates a significant market for gas remains under even the most ambitious 'Green Energy Exports' GSOO scenario. The long-term gas demand is largely from industrial, hard to abate users. Substitution of gas in high heat processes presents challenges, and the feasibility of biogas and green hydrogen uptake is currently limited, and the outlook uncertain.

Key insights from the gas market analysis include:

- Mass market gas consumption is expected to decline across all scenarios, as consumers and businesses electrify. Mass market gas demand
  is aligned with the AEMO scenarios, with demand in scenarios 4 and 5 (Progressive Change) declining more slowly than in scenarios 2
  and 3 (Step Change) due to lower levels of electrification. Under Scenario 1 mass market demand falls more rapidly, driven by significantly
  increased electrification.
- Gas consumption for power generation is much more volatile across all scenarios. In scenarios 2 and 3 it remains steady in the short term, rises around FY30 and then declines as natural gas is replaced with green hydrogen in the modelling. The rise in medium-term GPG demand is primarily to support grid reliability, as flexible GPG provides firming to enable the wider energy transition. The peak and subsequent drop-off occurs earlier in Scenario 1, driven by the faster energy transition. In scenarios 4 and 5 GPG use ramps up from the early 2030s to 2050, over the course of a slowed energy transition in the absence of a carbon constraint.

#### **Modelling limitations**

This CTAP considers various scenarios, which are not predictions or reflections of AGL's preferences or projections. Rather, they explore the possible implications of different interpretations and assumptions about the nature and pace of Australia's energy transition. Scenario modelling and associated analysis have inherent limitations. Assumptions may or may not be, or prove to be, correct; and may or may not eventuate, and scenarios may be impacted by factors beyond the assumptions made. Additionally, these scenarios do not cover all possible outcomes comprehensively. The scenarios present a range of possible outcomes to help form judgements about the uncertainty surrounding the energy transition in Australia. AGL also considers a broad spectrum of other analyses and information when developing our long-term strategy.

