

22 September 2023

ASX ANNOUNCEMENT

APA Group (ASX: APA)
also for release to APA Infrastructure Limited (ASX: AP2)

APA DELIVERS PROGRESS ON ITS CLIMATE TRANSITION PLAN

APA Group (ASX: APA) has today released its first Climate Report, demonstrating solid progress towards the delivery of its Climate Transition Plan 2030 interim targets and goals.

APA Group CEO and Managing Director Adam Watson said the Climate Report illustrates APA's commitment to playing a key role in Australia's energy transition by making solid progress in the delivery of APA's Climate Transition Plan and demonstrating enhanced disclosure and transparency in the reporting of climate-related information.

"We are committed to doing our part to accelerate the energy transition by decarbonising our business and being the partner of choice as our customers decarbonise," Mr Watson said.

"In FY23, we delivered a 6.7 per cent net reduction in gas infrastructure emissions and a 5.3 per cent reduction in power generation infrastructure emissions intensity, compared to our FY21 base year, representing solid progress towards our 2030 interim targets and goals. We have also established a new target to reduce operational methane emissions by at least 30 per cent by 2030, compared with FY21.

"In FY23 we also embedded the necessary governance and reporting processes to support our Climate Transition Plan, including incorporating an internal carbon abatement price, which is applied to emissions reduction and avoidance initiatives as well as stay-in-business projects.

"We recognise that stakeholder support for our climate strategy is essential for the achievement of our ambitions and at our 2022 Annual Meeting we fulfilled our commitment to hold an advisory securityholder vote to approve our Climate Transition Plan, which achieved significant majority support.

"As a leading Australian owned and listed energy infrastructure business, APA is well positioned to participate in and support Australia's energy transition, in line with our strategy to be the partner of choice in delivering infrastructure solutions for Australia's energy transition."

Progress in FY23

The APA Climate Report is aligned with the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) and details APA's progress against its Climate Transition Plan released in 2022.

It demonstrates momentum towards APA's net zero pathway. Highlights over the past 12 months include:

- A 6.7 per cent net reduction in gas infrastructure emissions compared to APA's FY21 base year.
- A 5.3 per cent reduction in power generation emissions intensity compared to APA's FY21 base year.
- The commissioning of the Dugald River Solar Farm, Australia's largest remote-grid solar farm (outside the NEM and WEM), supporting APA's goal to reduce the operational emissions intensity of its power generation infrastructure.

- Completion of a nationwide compressor electrification study and commencement of a business case for the electrification of our Wallumbilla compressor, as well as efficiency optimisation initiatives for select other compressors.
- Procuring 100 per cent renewable electricity from FY23.
- Investing in APA's net zero emissions reduction initiatives with a committed investment of \$150 million to \$170 million between FY23-30.
- Applying APA's Offset Criteria where offsets are required. APA's approach is to procure a diverse portfolio of offsets and to invest in projects with broader social and ecological benefit (co-benefits).
- Completing a physical climate risk screening assessment of all majority owned assets.
- Establishing a target to reduce operational methane emissions by at least 30 per cent by FY30, compared to APA's FY21 base year.
- Deploying leading-edge aerial methane detection technology on three major pipelines.
- Initiating a strategy and leasing of electric vehicles, for APA's goal to achieve a 100 per cent zero direct emissions vehicle fleet by 2030.
- Enhancing APA's Scope 3 emissions inventory and identifying priority emissions reduction pathways in line with the commitment to introduce a Scope 3 reduction goal in 2025.

APA has also established FY24 focus areas, which are aligned with APA's Climate Transition Plan. Among other initiatives, these focus areas will see APA progress electrification opportunities for gas infrastructure, advance the pipeline of renewable projects in the Pilbara and other regions, improve emissions data, progress the next round of transition risk and opportunity assessments, and continue developing a Scope 3 strategy.

**** Disclaimer: Please refer to the attached Climate Report for more detailed information on APA's targets, planning and progress against its Climate Transition Plan, including important information on how APA measures its progress and areas of uncertainty and assumptions which could impact delivery of its Plan.*

Authorised for release by Amanda Cheney

Company Secretary

APA Group Limited

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About APA Group (APA)

APA is a leading Australian Securities Exchange (ASX) listed energy infrastructure business. We own and/or manage and operate a diverse, \$22 billion portfolio of gas, electricity, solar and wind assets. Consistent with our purpose to strengthen communities through responsible energy, we deliver approximately half of the nation's gas usage and connect Victoria with South Australia, Tasmania with Victoria and New South Wales with Queensland through our investments in electricity transmission assets. We also own and operate renewable power generation assets in Australia, with wind and solar projects across the country. APA Infrastructure Limited is a wholly owned subsidiary of APA Infrastructure Trust and is the borrowing entity of APA Group. For more information visit APA's website, apa.com.au.



CLIMATE
REPORT 2023

powering

tomorrow



Entity details

Business name: APA Group

Ownership and legal form: APA Group (APA) comprises two registered managed investment schemes – APA Infrastructure Trust (APA Infra) and APA Investment Trust (APA Invest) – and their controlled entities. APA Group Limited is the responsible entity of APA.

Head office: Level 25, 580 George Street, Sydney NSW 2000

Contact us: If you have any questions or comments relating to this Climate Report, please email netzero@apa.com.au.

About this report

Important notice: This Climate Report ('the Report') has been prepared for APA stakeholders and outlines APA's progress against its 2022 [Climate Transition Plan](#) to address climate-related matters, including risks and opportunities. It has not been prepared as financial or investment advice or to provide any guidance in relation to the future performance of APA.

Disclosure approach: APA's disclosure approach in this report aligns with the recommendations of the Financial Stability Board (FSB) [Taskforce on Climate-related Financial Disclosures \(TCFD\)](#), which address strategy, risk, governance and metrics. The Taskforce on Climate-related Financial Disclosure section provides a guide to how we have responded to specific TCFD disclosures.

Organisational boundary: Unless noted otherwise, the organisational boundary for all emissions calculations, targets and goals relates to assets under APA's operational control, as defined by the Greenhouse Gas (GHG) Protocol. FY23 is used throughout the document for all emissions data, targets and goals, except where noted otherwise. The position statements, policies and governance arrangements referenced apply to APA Group Limited and its subsidiaries and controlled entities.

External assurance: We engaged Deloitte to undertake limited assurance over selected metrics in APA's FY23 [Climate Data Book](#) in accordance with the Australian Standard on Assurance Engagements ASAE 3000 Assurance Engagements other than Audits or Review of Historical Financial Information issued by the Australian Auditing and Assurance Standards. The key performance indicators are to be read in conjunction with APA's [FY23 Greenhouse Gas Emissions and Energy Calculation Methodology](#). Details of the assurance scope, procedures and conclusion are included in the Assurance Report on pages 61 to 63 of this report.

ACKNOWLEDGEMENT OF COUNTRY

At APA, we acknowledge the Traditional Owners of the lands on which we live and work throughout Australia. We acknowledge their connections to land, sea and community.

We pay our respects to their Elders past and present and commit to ensuring APA operates in a fair and ethical manner that respects First Nations peoples' rights and interests.

Cover image: Joe (Business Analyst and APA Climate Champion) at Badgingarra Wind Farm
Image: Badgingarra Solar Farm



Message from the Chairman and Managing Director	2
FY23 highlights	4
Our FY23 progress highlights	4
Our FY24 focus areas	5
About APA	6
Our strategy	10
The essential role of natural gas	11
APA's Climate Transition Plan	12
Stakeholder engagement on our Climate Transition Plan	14
Delivering our Climate Transition Plan commitments	16
The role of offsets	19
Reflecting climate-related risks and opportunities in our strategy	22
APA's climate transition risks and opportunities	23
Physical climate risks	26
Metrics and targets	30
Action on our Climate Transition Plan	31
FY23 progress: Gas infrastructure	32
FY23 progress: Power generation infrastructure	36
FY23 progress: Electricity transmission	37
FY23 progress: Renewable electricity procurement	38
FY23 progress: Zero direct emission vehicle fleet	38
FY23 progress: Value chain emissions	39
Risk management	44
Climate-related risks and the APA risk management framework	45
Process for identifying, assessing and managing climate-related risks	46
Governance	48
Our Board's oversight of climate-related risks and opportunities	49
Management's role in climate-related governance	52
Taskforce on Climate-related Financial Disclosures (TCFD)	54
TCFD index table	54
Additional information	55
Expanded climate-related performance information	55
Greenhouse gas emissions data summary	56
Glossary	58
Assurance statement	61

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Forward-looking statements: This publication contains forward-looking information, including about APA Group, its financial results and other matters which are subject to risk factors. 'Forward-looking statements' may include indications of, and guidance on, future earnings and financial position and performance, statements regarding APA Group's future strategies and capital expenditure, statements regarding estimates of future demand and consumption and statements regarding APA's sustainability and climate transition plans and strategies, the impact of climate change and other sustainability issues for APA, energy transition scenarios, actions of third parties, and external enablers such as technology development and commercialisation, policy support, market support and energy and offsets availability. Forward-looking statements can generally be identified by the use of forward-looking words such as, 'expect', 'anticipate', 'likely', 'intend', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target', 'outlook', 'guidance', 'goal', 'ambition' and other similar expressions and include, but are not limited to, forecast EBIT and EBITDA, free cash flow, operating cash flow, distribution guidance and estimated asset life.

At the date of this report, APA Group believes there are reasonable grounds for these forward-looking statements and due care and attention have been used in preparing this report.

Forward-looking statements, opinions and estimates are not guarantees or predictions of future performance and involve known and unknown risks and uncertainties and other factors. Many of these are beyond the control of APA Group and may involve significant elements of subjective judgement and assumptions about future events, which may or may not be correct. There can be no assurance that actual outcomes will not materially differ from these forward-looking statements, opinions and estimates. A number of important factors could cause actual results or performance to differ materially from such forward-looking statements, opinions and estimates. Readers are cautioned not to place undue reliance on such statements, particularly in light of the long-time horizon which this report discusses.

There are also limitations with respect to climate scenario analysis and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis is not an indication of probable outcomes and relies on assumptions that may or may not prove to be correct or eventuate. Scenarios may also be impacted by additional factors to the assumptions disclosed.

Investors should form their own views as to these matters and any assumptions on which any forward-looking statements are based. Except as required by applicable laws or regulations, APA does not undertake to publicly update or revise any forward-looking statements to reflect any change in expectations, contingencies or assumptions, whether as a result of new information or future events. To the maximum extent permitted by law, APA and its officers do not accept any liability for any loss arising from the use of the information contained in this report.

Message from the Chairman and Managing Director

As a leading Australian owned and listed energy infrastructure business, APA has a critical role to play in Australia's energy transition, consistent with the objectives of the Paris Agreement. Sustainability is central to our long-term success and we seek to incorporate sustainability practices across our business. One of the key aspects of this is driving the decarbonisation of our business and at the same time supporting our customers – including many of Australia's largest companies – to achieve their decarbonisation targets.

2022 Climate Transition Plan feedback

We recognise that seeking stakeholder support for our climate commitments and plans is important. At our 2022 Annual Meeting, we fulfilled our commitment to hold a non-binding securityholder vote on our Climate Transition Plan. While this vote achieved significant majority support, with 79% of securityholders in favour, the lessons from this vote, and the feedback we have received from our direct engagements with investors and other stakeholders throughout the year, were highly valuable in helping us to better understand stakeholder expectations and identify areas for future focus.

One area our stakeholders have said they want to see greater action on was managing our methane emissions. In our Climate Transition Plan, we committed to establishing a methane target during FY23 and in August 2023 we announced a new target to reduce operational methane emissions by at least 30% by FY30 compared with FY21 base year. As detailed in this Climate Report, we are also taking steps to better measure and report on our emissions from methane in line with the Methane Guiding Principles.

We also appreciate that addressing our Scope 3 emissions is important to many of our stakeholders and we have taken an immediate step to reduce our Scope 3 emissions by committing to fully offset all our business travel related emissions. The completion of the Gruyere Hybrid Energy Microgrid in FY23 is also contributing to the decarbonisation of assets we own but do not operate (a Scope 3 category).

Recognising the challenges of setting a robust Scope 3 goal, this year we have invested significant effort in identifying our Scope 3 emissions inventory and the priority emission reduction pathways for goal development, in order to introduce a Scope 3 emission reduction goal in our next Climate Transition Plan in 2025. We will continue to engage closely with our stakeholders as our climate plans evolve.

FY23 Progress

Over the course of FY23, we also made progress in embedding and integrating the necessary governance and reporting to achieve our climate commitments, including incorporating an internal carbon abatement price. With our Climate Transition Plan and other sustainability priorities central to APA's decision-making, the Board expanded the remit of one of its Board Committees to strengthen its focus in this area, with the Safety and Sustainability Committee commencing in October 2022. The Board also approved changes to executive remuneration arrangements to ensure the ongoing delivery of the Climate Transition Plan. Now at least 10% of short-term incentives for relevant executives will be tied to delivery of our Climate Transition Plan, making it clear that sustainability is central to APA's performance.

This Report details our progress in FY23 against our Climate Transition Plan. There were a number of notable highlights across the business including:

- solid progress towards our 2030 interim targets and goals, including a 6.7% net reduction in gas infrastructure emissions and a 5.3% reduction in emissions intensity (both relative to our FY21 base year)
- completion of a nationwide compressor electrification study, commenced development of a business case for Wallumbilla electrification, and efficiency optimisation of targeted compressors

We are pleased to present our first Climate Report, providing an update on our progress in FY23 against our 2022 Climate Transition Plan.

- applying our Offset Criteria where offsets are required, to ensure we procure a diverse portfolio of offsets and invest directly in Australian projects with broader social and ecological benefit, like the Aak Puul Ngantam Ltd partnership in Cape York
- commissioning of the Dugald River Solar Farm, Australia's largest remote-grid solar farm, which will support our goal to reduce the operational emissions intensity of our power generation infrastructure by 35% by 2030 (relative to FY21)
- procuring 100% renewable electricity from FY23
- conducting a physical climate risk assessment of all majority owned assets and reporting on the findings in this Climate Report
- deploying leading-edge aerial methane detection technology on three major pipelines
- investing in our net zero emission reduction initiatives with a commitment of \$150 million to \$170 million in spend across FY23–30
- initiating a strategy and commencing leases of electric vehicles towards our goal of a 100% zero direct emissions vehicle fleet by 2030.

APA is committed to enhanced transparency in corporate reporting of climate-related information. This Climate Report aims to provide more granular and easily accessible disclosures aligned with the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD).

We have also developed a comprehensive Climate Data Book to transparently report on the details of our emissions. Deloitte has provided limited assurance of select FY21–23 metrics in our Data Book, including our Scope 3 emissions.

Moving forward

As we look to future opportunities for APA to deepen our involvement in the energy transition, our Pathfinder Program continues to investigate the potential role of future fuels and other new decarbonisation technologies.

In FY23, our Pathfinder team, working with industry partners, continued to work on a landmark opportunity in Western Australia to explore the feasibility of converting a 43 kilometre section of the Parmelia Gas Pipeline to safely and efficiently transport hydrogen for industrial use. The first stages of the study have been promising and the project will now move to detailed safety studies and conversion plans over the course of FY24.

As announced last month, we have agreed to acquire the Alinta Energy Pilbara business which positions APA to play a leading role supporting the decarbonisation of Australia's resources sector, as we work with customers in the region to deliver reliable, affordable, low emissions energy. This acquisition brings a substantial development pipeline that aligns with our priority asset classes, including new electricity transmission and renewables investments to support the energy transition.

We believe that APA is now set up to successfully deliver on our plans and to continue to contribute to Australia's pathway to net zero through our strategy to be the partner of choice in delivering infrastructure solutions for Australia's energy transition.



Michael Fraser
Chairman



Adam Watson
Chief Executive Officer
and Managing Director

FY23 highlights

In FY23 we made solid progress embedding our 2022 Climate Transition Plan across APA. This delivered a number of achievements against our climate-related targets, goals and commitments, laying the foundation for future progress.

Our FY23 progress highlights

2030 TARGET

Reduce gas infrastructure operational emissions by 30% (FY21 base year)

6.7% net reduction compared to FY21

- Completed nationwide compressor electrification study
- Optimised targeted compressors
- Applied our Offset Criteria where offsets required

2030 GOAL

Reduce power generation infrastructure operational emissions intensity by 35% (FY21 base year)

5.3% reduction compared to FY21

- Commissioned Dugald River Solar Farm, Australia's largest remote-grid solar farm

TARGET COMMENCING FY23

Procure 100% renewable electricity

- Procured 100% renewable electricity by purchasing and surrendering large-scale generation certificates from Daydream Solar Farm

2025 ACTION

Finalise a Scope 3 emissions goal in conjunction with our next Climate Transition Plan in 2025

- Developed focus areas
- Established commitment to fully offset business travel
- Commissioned the Gruyere Hybrid Energy Microgrid
- Hydrogen readiness advanced through completion of stage 2 of the Pathfinder Parmelia Gas Pipeline conversion

FY23 ACTION

Conduct physical climate risk assessment (portfolio level)

- Completed risk screening of all majority owned assets. Screened assets are identified in the physical climate risk section of this Climate Report.

SUPPORTING ACTION

Incorporation of the Methane Guiding Principles

- Set methane target of at least 30% reduction in our operational methane emissions by 2030 (FY21 base year)
- Deployed leading-edge aerial methane detection technology on three major pipelines
- Completed leak detection survey on Goldfields Gas Pipeline

2040 GOAL**Electricity transmission net zero operational emissions by 2040****98% reduction (excluding line losses) compared to FY21**

- Achieved through the purchase of 100% renewable electricity

SUPPORTING ACTION COMMENCING FY23**Link executive remuneration to climate-related performance**

- At least 10% of the short-term incentive applied to relevant ELT members. Refer to the remuneration report in our FY23 Annual Report for further details

FY23 ACTION**Hold a non-binding Securityholder vote on our Climate Transition Plan**

- 79% securityholder approval for our 2022 Climate Transition Plan at our October 2022 AGM

Our FY24 focus areas**Gas infrastructure**

- Progress compressor optimisation and electrification opportunities
- Embed our methane target
- Advance methane mitigation and enhanced measurement

Power generation and electricity transmission infrastructure

- Progress Alinta Energy Pilbara project pipeline
- Pursue other investment opportunities in renewables and electricity transmission

Data management and reporting

- Automate our emissions data capture through the development of our emissions data and reporting platform

Risks and opportunities

- Complete physical climate risk deep-dives on our priority sites
- Progress our next iteration of transition risk and opportunity assessments

Scope 3 goal

- Advance the development of our strategy building on established pathways

About APA



PURPOSE · WHY WE EXIST

To strengthen communities through responsible energy.

STRATEGY · WHAT WE DO

To be the partner of choice in delivering infrastructure solutions for the energy transition.

Image: Substation on the Northern Goldfield Interconnect

For over two decades, APA has played a key role in meeting the energy needs of customers. We operate in every Australian State and Territory. With our industry rapidly changing, we are focused on partnering with customers to deliver infrastructure solutions for Australia's energy transition.

About APA

APA Group is a leading Australian energy infrastructure business that owns and operates a diverse \$22 billion portfolio of energy assets. As well as assisting governments, resources companies and other customer groups with their transition, APA is contributing to Australia's supply of renewable energy and grid-firming gas. The commitments in our 2022 Climate Transition Plan support our evolving role and underpin decision making across our business.

Our 15,000 kilometres of natural gas pipelines connect sources of supply and markets across mainland Australia. We operate and maintain networks connecting 1.4 million Australian homes and businesses to the benefits of natural gas. We also own, or have interests in, gas storage facilities and gas-fired power stations. Our gas infrastructure assets play an important role in supporting the transition away from more emissions-intensive coal-fired power generation and providing the peaking and firming capacity that enables the larger-scale rollout of wind and solar energy. Through APA's Pathfinder Program, we are also actively exploring future energy solutions for decarbonising the gas value chain, including the use of hydrogen in our pipelines.

Our asset portfolio includes high-voltage electricity transmission assets that connect Victoria with South Australia, and New South Wales with Queensland. In FY23, we added a third electricity interconnector to APA's energy infrastructure portfolio by acquiring Basslink Pty Ltd. Basslink owns and operates the 370km high-voltage direct current electricity interconnector between Victoria and Tasmania.

APA operates and has interests in 596 MW of renewable electricity generation infrastructure, making us the 10th-largest renewable electricity supplier in Australia¹.

In August 2023 we entered into an agreement to acquire Alinta Energy Pilbara, which will add 60 MW of solar generation capacity, 35 MW of battery storage capacity, 442 MW of gas generation and 200 kilometres of electricity transmission to APA's portfolio, in addition to a ~1GW+ development pipeline of wind, solar and battery storage^{2,3,4}.

As APA's customers' decarbonisation ambitions accelerate, we are taking a customer-driven approach to supporting them by leveraging our whole portfolio. For example, APA is helping governments with their evolving electricity transmission needs; and resources companies with remote-grid, bundled energy solutions. At the same time, we are supporting the stability of the energy grid through our gas infrastructure.

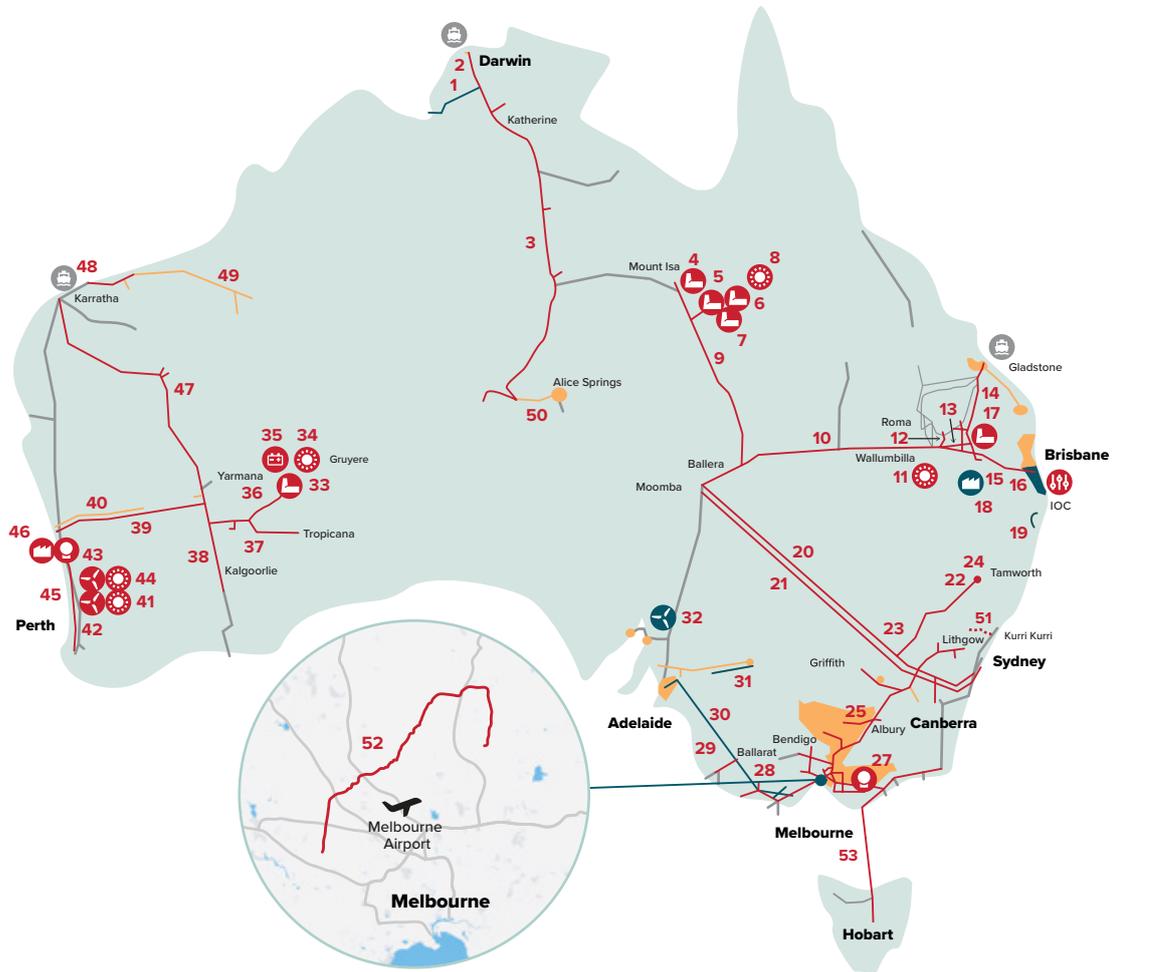
¹ Clean Energy Regulator Greenhouse and energy information by designated generation facility 2021-22

² Development pipeline capacities based on current project design, subject to change up until final investment decision, see slide 65 in Appendix 4 of Acquisition of Alinta Energy Pilbara and equity raising presentation https://www.apa.com.au/globalassets/asx-releases/2023/fy23-results/apa_acquisition-and-equity-raising_presentation_23-aug23.pdf.

³ Based on information provided by Alinta Energy, see disclaimer for more detail on the review of Target information.

⁴ Development pipeline includes 47MW Port Hedland Solar and 35MW Port Hedland Battery which are currently under construction.

APA portfolio of assets and investments



Pipeline

- 3 Amadeus Gas Pipeline (inc laterals)
- 13 Berwyndale Wallumbilla Pipeline
- 1 Bonaparte Gas Pipeline
- 9 Carpentaria Gas Pipeline (inc laterals)
- 22 Central Ranges Pipelines
- 23 Central West Pipeline
- 37 Eastern Goldfields Pipeline
- 47 Goldfields Gas Pipeline (GGP)
- 38 Kalgoorlie Kambalda Pipeline
- 40 Mid West Pipeline
- 20 Moomba Sydney Pipeline (inc laterals) (MSP)
- 21 Moomba to Sydney Ethane Pipeline
- 28 Mortlake Gas Pipeline
- 39 Northern Goldfields Interconnect
- 45 Parmelia Gas Pipeline (PGP)
- 48 Pilbara Pipeline System
- 12 Reedy Creek Wallumbilla Pipeline
- 15 Roma Brisbane Pipeline (inc Peat lateral)
- 30 SEA Gas Pipeline
- 29 SESA Pipeline
- 10 South West Queensland Pipeline (SWQP)
- 49 Telfer/Nifty Gas Pipelines and lateral
- 25 Victorian Transmission System (VTS)
- 14 Wallumbilla Gladstone Pipeline (inc laterals)
- 2 Wickham Point Pipeline
- 36 Yamarna Gas Pipeline
- 51 Kurri Kurri Lateral Pipeline (KKLP)
- 52 Western Outer Ring Main (WORM)

Gas Processing and Storage

- 27 Dandenong
- 18 Kogan North
- 46 Mondarra

Gas Distribution

- 16 Allgas Gas Network
- 50 Australian Gas Networks
- 24 Tamworth Gas Network

Electricity Transmission

- 19 Directlink
- 31 Murraylink
- 53 Basslink*

Generation

- 17 Daandine (30 MW)
- 6 Diamantina (242 MW)
- 33 Gruyere (47 MW)
- 7 Leichhardt (60 MW)
- 5 Thomson (22 MW)
- 4 X41 (41 MW)
- 35 Gruyere Battery Station (4.4 MW/MWh)

Solar Farm

- 43 Badgingarra (19 MW)
- 11 Darling Downs (108 MW)
- 41 Emu Downs (20 MW)
- 34 Gruyere Solar Farm (13.2 MW)
- 8 Dugald River Solar Farm (88 MW)

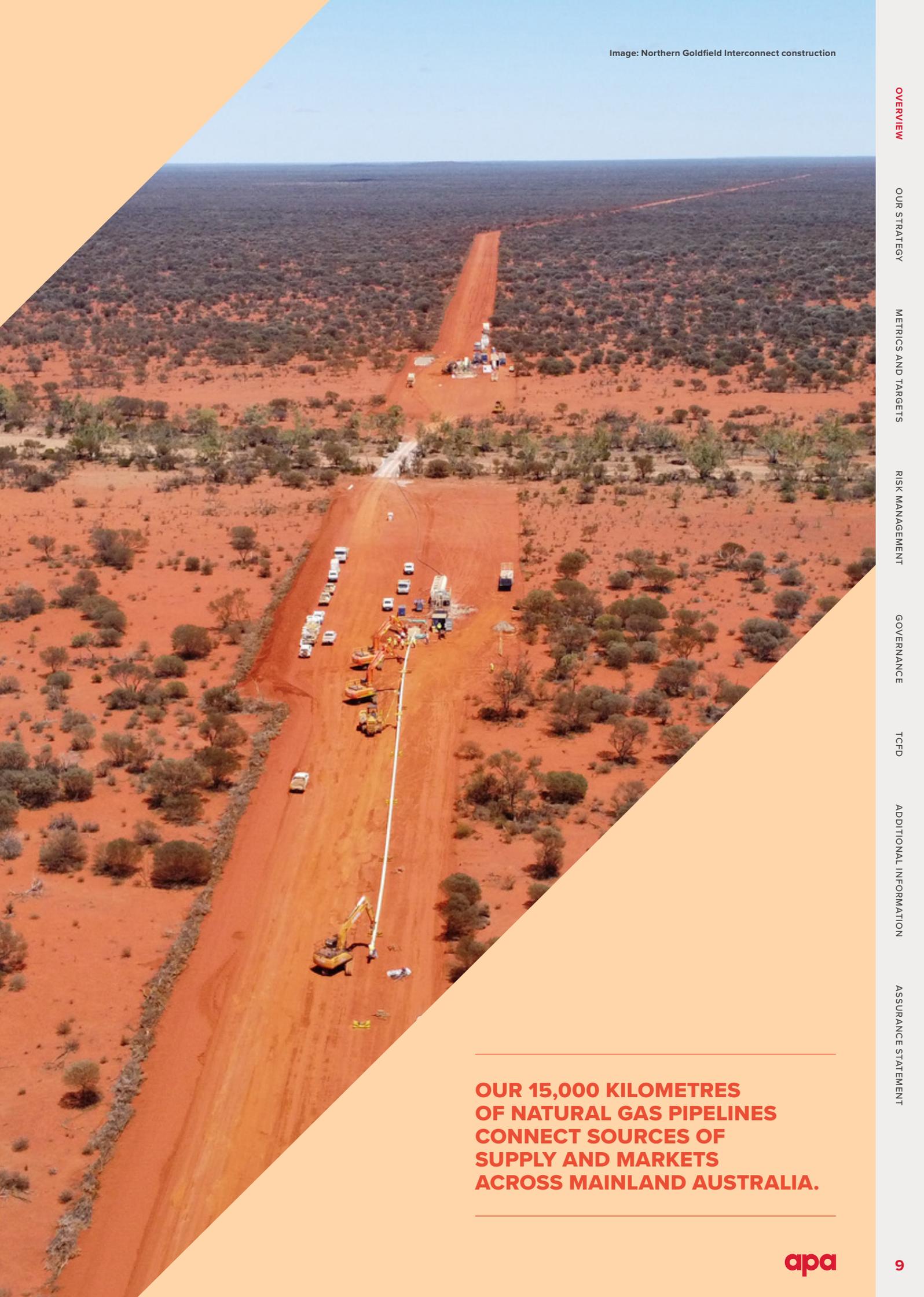
Wind Farm

- 44 Badgingarra (130 MW)
- 42 Emu Downs (80 MW)
- 32 North Brown Hill (132 MW)

Key

- APA Group asset
- APA Group distribution network asset
- APA Group investment
- Investment distribution network
- APA Group managed asset (not owned)
- Managed distribution network
- Other natural gas pipelines
- Under construction
- ☪ Wind farm
- ☀ Solar farm
- 🏭 LNG plant
- 🔋 Battery storage
- 🏠 Gas storage facility
- 🏭 Gas processing plant
- ⚡ Gas power station
- 👥 Integrated Operations Centre

* Acquired October 2022.



**OUR 15,000 KILOMETRES
OF NATURAL GAS PIPELINES
CONNECT SOURCES OF
SUPPLY AND MARKETS
ACROSS MAINLAND AUSTRALIA.**

Our strategy



IN FY23, WE:

Engaged with our employees through a
NET ZERO CHALLENGE

Entered into a partnership with
**AAK PUUL NGANTAM
TO PURCHASE
AUSTRALIAN CARBON
CREDIT UNITS (ACCUs)**

**ENGAGED WITH
OUR INVESTORS**

following the release of our
Climate Transition Plan

Image: Mondarra Gas Storage Facility

As a major energy infrastructure provider, APA plays a dual role in Australia’s energy transition. As well as reducing emissions across our own operations, we support our customers to achieve their decarbonisation ambitions.

Our strategy

APA’s strategy is to **be the partner of choice in delivering infrastructure solutions for Australia’s energy transition.** APA’s focus is delivering reliable, future-focused energy solutions for the resources industry, energy supply and wholesale markets, government and large commercial and industrial customers.

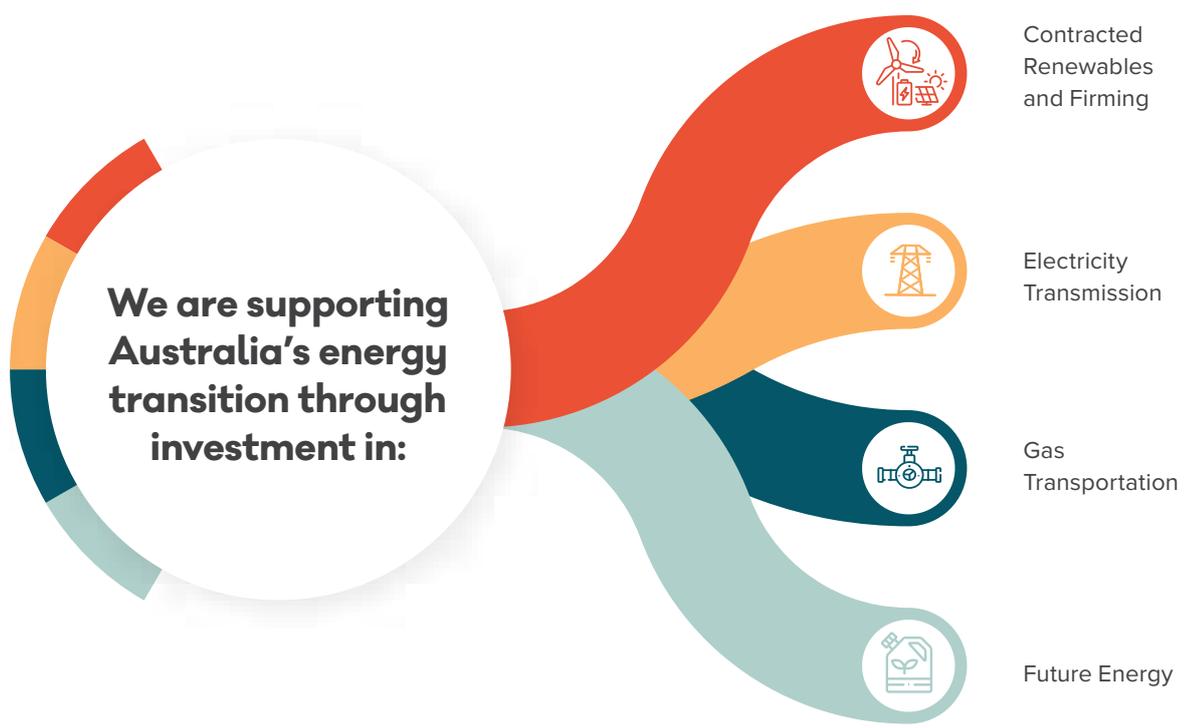
Our customer solutions target four asset classes that are essential to Australia’s energy transition and where we have a competitive advantage: contracted renewable electricity and firming, electricity transmission, gas transportation, and future energy (including clean fuels such as hydrogen and renewable methane).

The essential role of natural gas

Along with APA’s renewable electricity, electricity transmission and future fuels solutions, our natural gas assets help to ensure Australians continue to have access to secure, reliable and cost-efficient energy.

By investing in gas, we recognise the energy transition pathway for our business and customers is not necessarily linear. APA’s natural gas assets provide the firming and peaking capacity needed to expand renewable energy so it can replace retiring coal power stations and electrify the Australian economy. Natural gas is also currently irreplaceable for powering hard-to-abate and hard-to-electrify industrial sectors and provides essential heating in colder climates. Refer to page 23 (*role of gas in Australia’s energy transition*).

Our strategy is focused on four asset classes



KEY CHALLENGE

Managing the need for new gas investments

We acknowledge APA's role in the energy transition and market means some investments may, on their own, increase our emissions in the short-term. However, these investments can facilitate emissions reductions in the broader Australian electricity system by supporting higher renewable electricity penetration and, in some cases, replacing more emissions-intensive fuels such as diesel. For example, APA's strategy includes providing firming gas generation to support renewable generation provided by third parties. New gas investments may also be needed to manage regional supply shortfalls – for example, to transport northern gas supply to Victoria as Bass Strait supplies wind down. If there are circumstances such as these where APA's emissions temporarily increase in response to wider decarbonisation and energy security needs, we will:

- disclose the contributing factors and explain the impacts
- attempt to quantify and disclose the resulting impact on the broader Australian energy system decarbonisation in a meaningful way
- identify and disclose our proposed pathway to align with our target trajectories.

KEY CHALLENGE

Methane measurement and reporting

APA's existing regulatory measurement techniques for methane typically do not enable improvements in methane emissions to be recognised. APA is exploring enhanced methane reporting methods using both top-down and bottom-up approaches and new technologies which enable improvements to be recognised and performance gaps addressed. Implementation of new methods is complex and requires significant resources but will provide us with the data required to support achieving our methane target.

APA's Climate Transition Plan

In August 2022, we published APA's first Climate Transition Plan. This sets out our climate-related targets, goals and commitments that will guide our actions as we pursue our strategy to be the partner of choice in delivering infrastructure solutions for the energy transition. Our Climate Transition Plan will be refreshed every three years, with the next update in 2025.

In our Climate Transition Plan we set targets where there is one or more identified pathways to deliver the intended outcome, and goals where we set an ambition towards an outcome. While no pathway is currently identified to achieve the goal, efforts will be pursued towards addressing that challenge.

Key targets and goals

Our overarching goals are to reach net zero operational emissions for our gas infrastructure assets by 2050, and for our power generation and electricity transmission infrastructure assets by 2040.

Our interim commitments are a target of reducing net gas infrastructure emissions by 30% from FY21 levels by 2030, and a goal to reduce the emissions intensity of our power generation and electricity transmission infrastructure assets by 35% by 2030 (relative to FY21). We assess these commitments to be consistent with the Paris Agreement objective to limit warming to well below 2°C. Our [Climate Transition Plan](#) (refer to page 25 of the Climate Transition Plan for further information) explains how we set these interim targets and goals.

The *Metrics and targets* section of this report discloses APA's FY23 performance against these and other Climate Transition Plan commitments.

New methane target

In our Climate Transition Plan, we committed to establishing a methane reduction target in FY23. We have met this commitment by setting a target to reduce operational methane emissions by at least 30% by 2030 (compared with our FY21 base year). The new target aligns with Australia's commitments as a signatory to the [Global Methane Pledge](#), which aims for a 30% reduction in global methane emission levels by 2030 (compared with 2020). In addition, we have committed to review strengthening the target, following completion of enhanced methane measurement across APA's assets, in the next update of the Climate Transition Plan to be released in 2025.

For further information on APA's methane target refer to the *Metrics and targets* section

Climate Transition Plan

APA's Climate Transition Plan commitments are aligned with the four focus areas of our business strategy.

GOAL: Gas infrastructure – net zero operational emissions by 2050 ¹	GOAL: Power generation and electricity transmission infrastructure – net zero operational emissions ² by 2040 ³
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INTERIM TARGETS / GOALS FOR 2030	
TARGET: 30% emissions reduction for gas infrastructure (FY21 base year)	GOAL: 35% reduction in emissions intensity for power generation (FY21 base year)
TARGET: 100% renewable electricity procurement from FY23 onwards	GOAL: Contribute positively to grid decarbonisation measured by MW of enabled renewable infrastructure
GOAL: 100% zero direct emission fleet	SUPPORTING ACTIONS: Active program to reduce emissions we can control and apply best practice management techniques to managing line losses
SUPPORTING ACTIONS: Responsible criteria ⁴ applied when offsets are required	

NEW TARGET FOR 2030
TARGET: 30% methane reduction target (FY21 base year)

TOTAL NOMINAL EXPENDITURE TO 2030	INVESTMENT
Approximately \$150M–\$170M	Growth capital investment

KEY SUPPORTING ACTIONS				
1 Incorporation of the Methane Guiding Principles	2 Hold a non-binding securityholder vote on future material updates to our Climate Transition Plan	3 Report annually on progress against the targets, goals and commitments in our Climate Transition Plan	4 Link executive remuneration to climate-related performance from FY23	5 Scope 3 emissions goal to be finalised before or in conjunction with our next Climate Transition Plan

When setting APA's targets and goals, we made our commitments clear to stakeholders based on the level of uncertainty in the pathway required to reach them:

Target: an intended outcome where we have identified one or more pathways for delivering that outcome, subject to certain assumptions or conditions.	Goal: an ambition to seek an outcome for which there is no current pathway but for which efforts will be pursued towards addressing that challenge, subject to certain assumptions or conditions.
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1 Includes transmission, distribution, gas processing, storage and corporate.

2 The organisational boundary for all targets and goals relates to assets under APA's operational control, as defined by the Greenhouse Gas (GHG) Protocol. The following assets are not within APA's operational control for emissions reporting purposes: Victorian Transmission System (maintenance excepted), Gruyere and X41 Power Stations, Wallumbilla Gladstone Pipeline, SEA Gas Pipeline and Mortlake Pipeline, North Brown Hill Wind Farm and Australian Gas Networks.

3 Includes power generation and interconnectors.

4 This means the application of our Offset Criteria when offsets are required.

Stakeholder engagement on our Climate Transition Plan

Non-binding securityholder vote

As part of the governance and accountability commitments in our Climate Transition Plan, a supporting action is to hold a non-binding securityholder vote on our Climate Transition Plan, starting with our 2022 Annual General Meeting. In October 2022, APA held this vote and our Climate Transition Plan was approved, receiving a 79% vote in support from securityholders. Most securityholder feedback was positive, describing our Climate Transition Plan as comprehensive, pragmatic and achievable.

Morgan Stanley rated APA's approach to decarbonisation as first quartile (refer to the table below for more information table) in the ASX 200.¹

Following the vote, APA engaged with securityholders on areas of support and opportunities to strengthen our Climate Transition Plan. A key outcome from the consultation was the value of communication and the need to understand diverse views through direct engagement.

The table below summarises key themes APA has received from Investor feedback, and actions we have taken in response

Topic	Our investors	APA's response
Scope 3	<ul style="list-style-type: none"> would like us to set a Scope 3 goal and start to make progress on reducing these emissions would like end user emissions to be included in our Scope 3 inventory and goal 	<ul style="list-style-type: none"> APA has developed Scope 3 goal pathways, in line with our planned introduction of a Scope 3 emissions reduction goal in 2025. As an immediate step in reducing our Scope 3 emissions, APA has committed to fully offset all business travel while we progress planning for reducing emissions across our broader Scope 3 categories. In accordance with the GHG Protocol Scope 3 Accounting and Reporting Standard category boundaries, emissions associated with natural gas products we transport but do not sell to the end user are not an APA Scope 3 emission. APA's view is that an end user emissions goal would be too heavily influenced by factors beyond our direct control, such as the pace of deployment of hydrogen and other alternative fuels in Australia. However, we are committed to do our part to support technologies for gas value chain decarbonisation through our Pathfinder Program and advancing collaboration opportunities.
Targets/goals	<ul style="list-style-type: none"> would like to see short-, medium- and long-term goals prefer targets to goals² are interested to see stronger ambition and demonstrated progress relative to peers 	<ul style="list-style-type: none"> We have clarified that while our headline gas infrastructure target for 2030 will not be linear in terms of actual emissions reduction, we will achieve a straight-line trajectory via a combination of actual emissions reductions and the purchase of offsets that meet our Offset Criteria. This requires us to achieve a net emissions reduction of 3.3% per year. Our 2030 power generation goal implies a 3.9% p.a. average reduction in emissions intensity (relative to FY21). We will monitor performance against this 3.9% average reduction, while noting there is not sufficient pathway certainty to establish a short-term target or goal. We have increased our ambition in FY23 with a new target to reduce operational methane emissions by at least 30% by 2030 (relative to a FY21 base year). As outlined further in the <i>Metrics and targets</i> section, we have met our FY23 targets for gas infrastructure and the purchase of renewable electricity, among others. We have assessed our targets and goals to be consistent with the objectives of the Paris Agreement.

¹ Koh R. and Kerr SV, 24 August 2022, APA: Climate Transition Plan Research Report, Morgan Stanley.

² Where we have established a goal rather than a target this is where we do not have sufficient certainty to meet the outcome.

Topic	Our investors	APA's response
Power generation emissions intensity goal	<ul style="list-style-type: none"> prefer an absolute instead of intensity-based power generation goal 	<ul style="list-style-type: none"> We have maintained our intensity-based goal. This reflects the role that APA can play in contributing to wider grid decarbonisation, e.g. by displacing coal and firming renewables through gas generation, even if this means an increase in absolute emissions. We believe an intensity goal is more informative given absolute emissions increases often result from increased electricity demands and these are outside APA's control. Conversely, absolute emissions could decrease as a result of a reduction in electricity demand that are unrelated to APA's performance in avoiding and reducing emissions from power generation. An intensity-based goal provides a more appropriate metric for measuring our performance in mitigating emissions while meeting changing customer energy needs. For example, an absolute goal may not reflect benefits of investments in renewable electricity generation infrastructure.
Transparency and disclosure	<ul style="list-style-type: none"> wish to see clearer disclosures, transparency and evidence of progress with relevant information easy to find 	<ul style="list-style-type: none"> We have taken on board investor feedback on ensuring that key disclosures and progress updates are easy to find in our reporting. We have structured this report to be consistent with the recommendations of the TCFD. Refer to <i>TCFD index</i> for an index of TCFD disclosures and where to find them; and to <i>Metrics and Targets</i> for progress updates on our key Climate Transition Plan disclosure commitments.
Offsets	<ul style="list-style-type: none"> have concern over our reliance on offsets and the quality of any offsets surrendered to meet our gas infrastructure target 	<ul style="list-style-type: none"> Our mitigation hierarchy defines our approaches to emissions reduction (refer to page 27 of our <i>Climate Transition Plan</i>). We prioritise mitigation, using offsets only where reasonable to do so. We define 'reasonable' as circumstances where the marginal cost of emissions mitigation is above our internal carbon abatement price (refer to <i>Our internal carbon abatement price</i> section of this report). We have disclosed our Offset Criteria (refer to <i>The role of offsets</i> section of this report).
Just transition	<ul style="list-style-type: none"> are seeking additional disclosure on APA's approach to just transition considerations 	<ul style="list-style-type: none"> Just transition will be a key driver and expected outcome of our Community and Social Performance (CSP) uplift across our business. This uplift is scheduled to be defined and initiated in FY24.
Advocacy	<ul style="list-style-type: none"> wish to understand how our approach to climate-related advocacy, including through industry associations, aligns with the Paris Agreement 	<ul style="list-style-type: none"> We have membership criteria and a governance framework for industry associations. As part of this governance framework, industry memberships must be reviewed on an annual basis against APA's membership criteria.
Yet-to-be-identified opportunities	<ul style="list-style-type: none"> are concerned about a high percentage of yet-to-be identified opportunities to meet climate targets 	<ul style="list-style-type: none"> We have taken a conservative approach to assessing opportunities for abatement. We continue to seek additional mitigation opportunities. In FY23, we established a Group-wide Emissions Reduction Working Group to leverage expertise from across the business and manage our emissions reduction roadmap.

ENGAGING OUR PEOPLE

We engaged our employees before, during and after the launch of our 2022 Climate Transition Plan.

To continue our employee engagement on our net zero and climate ambitions in FY23 we:

- conducted a series of Climate Transition Plan briefings for APA's leaders, Climate Champions and the broader organisation

- held a series of lunch and learn sessions for APA employees to understand and discuss 'why net zero?', with each session attended by at least 300 employees
- launched the Net Zero Challenge in late 2022, an opportunity for our people to apply their expertise to co-create solutions which may help APA avoid or reduce emissions. More than 25 innovative ideas from employees across our business are now being considered for implementation.

Delivering our Climate Transition Plan commitments

Reducing our operational gas infrastructure emissions

 Climate Transition Plan Commitment	Target: 30% operational emissions reduction for gas infrastructure by 2030 (FY21 base year)
	Goal: net zero operational emissions by 2050

Our 2030 target corresponds to a net emissions reduction of 3.3% each year (FY21 base year). We will meet this through abatement where reasonable to do so, with offsets used only where there is a remaining performance gap. We expect our absolute emissions reductions to follow a ‘staircase’ trajectory, initially requiring greater use of offsets as we progress the work needed to implement projects that will deliver absolute emissions reductions later in the decade.

We expect to deliver about 10–20% of our 2030 target by pursuing compressor efficiency improvements and compressor electrification where feasible, and a further 30–40% through improvements in methane management, including leak detection and repair, seal gas recovery and valve replacement. Our new target to reduce methane emissions by at least 30% by 2030 recognises this focus on methane management and aligns with APA’s commitment as a signatory to the Methane Guiding Principles.

A component of our gas infrastructure target also comes from corporate commitments, including renewable electricity procurement (see *Delivering our cross-cutting commitments*, on page 19).

After prioritising abatement, we will use offsets for gas infrastructure emissions that cannot be reasonably avoided or reduced. Refer to *Our Internal carbon abatement price* for further information on how APA applies a mitigation hierarchy to prioritise abatement, and *The role of offsets* for information on our process for selecting offsets consistent with our Offset Criteria.

KEY CHALLENGE

Compressor electrification commercial and technical feasibility

Electricity infrastructure costs related to establishing renewable energy microgrids and complex, long-distance grid connections add significantly to the costs of compressor electrification at remote sites. As a result, commercially feasible opportunities for compressor electrification are mostly limited to sites that are grid-connected or proximate.

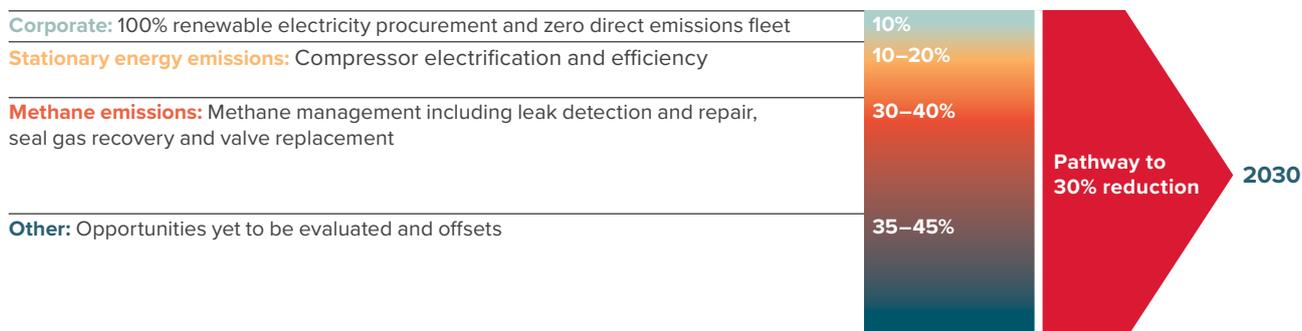
INVESTING IN OUR NET ZERO GOAL

APA has estimated the cost of our gas infrastructure emission reduction initiatives as approximately \$150m to \$170m over the period FY23–30. Key expected outlays include operating and capital expenses for compressor electrification; methane abatement measures; and the acquisition and surrender of offsets and large-scale generation certificates.

In FY23, we spent \$6.7m on delivering against Climate Transition Plan commitments. Going forward, there is some upside cost pressure in compressor electrification, while other opportunities may be implemented more cost-efficiently. For example, business case development for the Wallumbilla electrification commenced in FY23. The estimated cost of the preferred option for delivering the targeted emission reduction is being impacted by higher grid connection and electric motor drive unit costs. APA will continue to optimise our net zero spending.

Material opportunity areas for emissions reduction in APA’s gas infrastructure portfolio

APA’s gas infrastructure Scope 1 and Scope 2 target for 2030 will be achieved primarily through abatement



Reducing the emissions intensity of our power generation infrastructure assets through contracted renewables and firming



Climate Transition Plan Commitment

Goal: 35% reduction in operational emissions intensity for power generation infrastructure by 2030 (FY21 base year)

Goal: net zero operational emissions by 2040 (power generation)

Our 2030 goal corresponds to a 3.9% per year reduction in emissions intensity. However, given that a significant share of reductions will be delivered through new investment, we expect that progress towards the 2030 goal will involve stepped improvements rather than a linear reduction. Our intent is not to purchase offsets to meet the power generation intensity goal line except for compliance reasons.

Our long-term goal to reach net zero power generation emissions by 2040 is consistent with credible net zero pathways for the power generation sector. To reach it, APA will pursue opportunities for further long-term investments in renewables, firming (from natural or renewable gas) and storage technology.

KEY CHALLENGE

Balancing reliability for our customers

Achieving our power generation infrastructure intensity goal requires a significant investment in renewables that must be led by customer demand. Our remote-grid customers, particularly in the mining sector, are likely to seek a mixture of renewables and gas firming solutions to support operational reliability.

Diverse portfolio of existing assets and decarbonisation developments from the Alinta Energy Pilbara acquisition



Contracted Renewables

60 MW operating solar, 35 MW operating battery and ~1GW+ development pipeline of wind, solar and battery storage



Gas Generation

442 MW operating gas generation, with an additional 60 MW development pipeline



Electricity Transmission

> 200km operating transmission lines with and additional > 600km development pipeline



Gas Transportation

Remaining 11.8% of 203 TJ/d Goldfields Gas Transmission Pipeline (GGTP) not already owned by APA

HOW THE ALINTA ENERGY PILBARA ACQUISITION ALIGNS WITH OUR CLIMATE TRANSITION PLAN COMMITMENTS

In August 2023 APA entered into a Share Sale Agreement with Alinta Power Cat Pty Ltd and Alinta Energy Development Pty Ltd to acquire 100% of Alinta Energy Pilbara Holdings Pty Ltd and Alinta Energy (Newman Storage) Pty Ltd (Alinta Energy Pilbara). The acquisition will expand our portfolio in our priority asset classes and is consistent with our targets and goals under the Climate Transition Plan.

We have assessed that the addition of Alinta Energy Pilbara's assets to our portfolio will not impact our ability to meet our 2030 interim targets and goals, while Alinta Energy Pilbara's new development pipeline will support our long-term ambitions. This includes a pipeline of over 1 GW of renewables capacity and 600 kilometres of new electricity transmission.

In line with our re-baselining principles, APA will re-baseline our emissions inventory during FY24 to reflect the new assets once acquired. In line with our re-baselining principles (and the GHG Protocol), our 2030 targets and goals will be adjusted as part of the re-baselining to retain the same degree of ambition relative to the FY21 base year.

Investing in electricity transmission to enable renewables



**Climate
Transition Plan
Commitment**

Goal: net zero operational emissions by 2040 (electricity transmission)

Goal: Contribute positively to grid decarbonisation measured by MW of enabled renewable infrastructure

Goal: Active program to reduce emissions we can control and apply best practice management techniques to managing line losses

APA’s ability to meet our electricity transmission net zero operational emissions goal depends on wider factors such as the pace of renewables penetration in Australia and uncertain technological advancements. This is because line losses make up the majority of APA’s transmission emissions and these depend on the overall emissions intensity of the electricity grid.

While APA cannot influence the overall generation mix in the grid, our strategy is to contribute positively to grid decarbonisation by pursuing investments in transmission infrastructure that enable renewables.

This includes new transmission infrastructure to unlock renewable generation capacity from Australia’s Renewable Energy Zones.

In the medium-term, we have also committed to enhancing measurement for the electricity transmission emissions we control, which largely relate to sulphur hexafluoride (SF₆) leakage; and to reviewing other options to reduce emissions.



Image: Basslink electricity interconnector

KEY CHALLENGE

Addressing end user emissions

Lowering end user emissions from the gas we transport will depend on significant advancements in deploying future energy technologies, including fuel switching, hydrogen, biomethane and (potentially) carbon capture and storage (CCS).

Delivering our cross-cutting commitments

In addition to our asset-specific targets and goals we have also set cross-cutting supporting actions which are applicable to all of APA's asset classes. These are:

- a target of 100% renewable electricity procurement to reduce our Scope 2 emissions
- a goal for a 100% zero direct emissions vehicle (ZDEV) fleet by 2030.

We are pursuing our ZDEV goal on a rolling basis as our existing fleet leases expire. This is subject to market availability of suitable ZDEVs, which remains a challenge for light commercial vehicles.

Reducing value chain emissions

In addition to reducing our direct Scope 1 and Scope 2 emissions from the assets we operate, APA is pursuing opportunities to help decarbonise the wider value chain.

Our value chain emissions fall into two categories:

- reportable Scope 3 emissions that occur upstream and downstream of APA's operations
- end user emissions from consumption of the natural gas APA transports, which fall outside our Scope 3 emissions reporting boundary.

As part of our efforts to reduce Scope 3 emissions, we have committed to fully offset all business travel. APA is committed to introducing a Scope 3 emissions goal before or in conjunction with our next Climate Transition Plan in 2025.

Meanwhile, we are investing in future energy to pursue reductions in end user emissions from transported gas through our Pathfinder Program. This includes investigating the use of gas infrastructure for future fuels such as hydrogen and biofuels.

The role of offsets

APA applies a mitigation hierarchy¹ to prioritise abatement where reasonable to do so (refer to page 27 of our [Climate Transition Plan](#)). We apply an internal carbon abatement price to help align our decision making with this priority (refer to *Metrics and targets* section for further information).

Where reductions are not 'reasonable', we use offsets that meet clearly defined Offset Criteria. We surrender offsets where there is a performance gap between gross gas infrastructure emissions and the annual reductions required to meet our 2030 target.

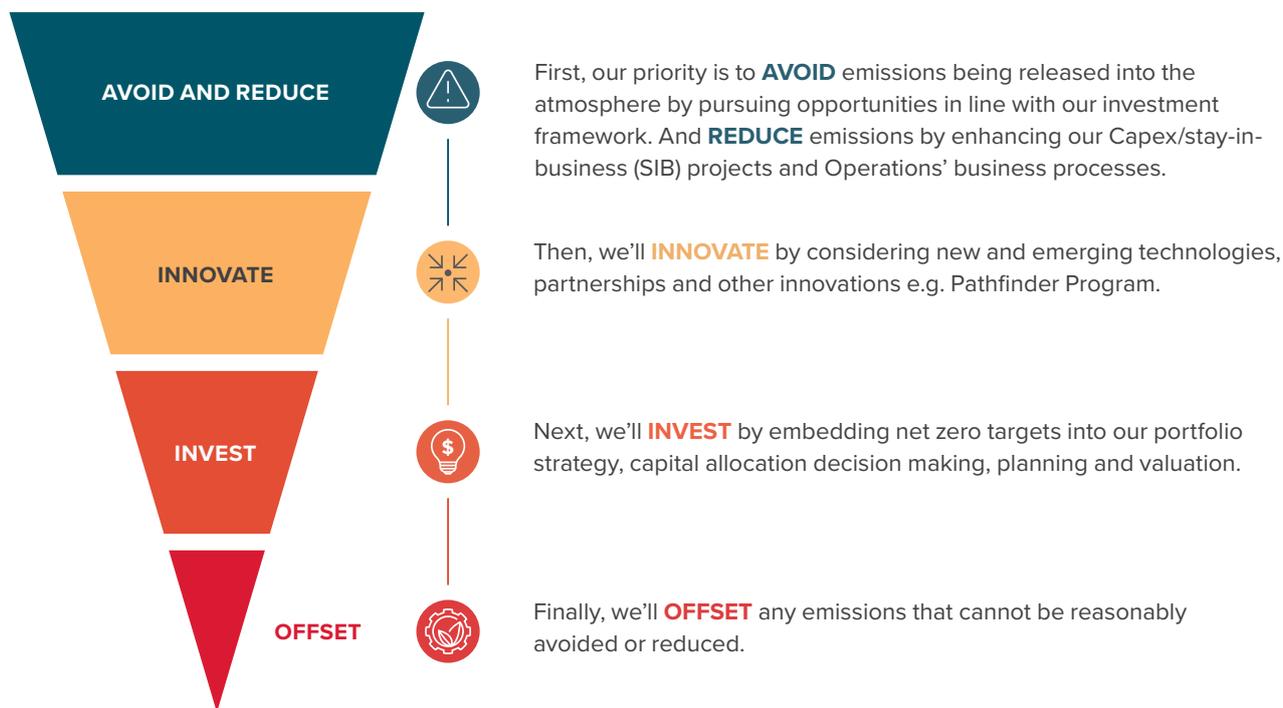
We use our Offset Criteria to screen and evaluate potential offset purchases and aim to procure a diverse portfolio of Australian and international offsets that meet these criteria. In FY23, we reviewed our Offset Criteria to ensure it was fit for purpose, including considering changes to the Government's Safeguard Mechanism, and the Chubb Review. We also developed a numerical scorecard to evaluate potential offset purchases against these criteria.

Our medium-term strategy is to source offsets through a combination of multi-year contracts, directly investing in projects and/or funds, and making purchases from the spot market. In addition, we will generate offsets from APA-led projects where possible.

Refer to APA's [FY23 Climate Data Book](#) for further information.

¹ Refer to page 27 of our [Climate Transition Plan](#).

APA emissions mitigation hierarchy



APA's Offset Criteria

Requirement	Offset Criteria
Additionality	Offsets to represent genuine abatement. Nature-based sequestration prioritised over emission avoidance projects.
Co-benefits	Offsets to possess co-benefits leveraging synergies with APA's Sustainability Roadmap and our priority issues, such as support for First Nations engagement.
Double counting	Reductions attributable to the surrender or retirement of any offset are otherwise unclaimed by others. Specifically, unclaimed by others means: the party that surrenders or retires the offsets, can claim the reduction of CO ₂ emissions, and no other party, including the party that originally generates and subsequently sells the offset, can claim that reduction potentially resulting in 'double counting'.
Geographic location	Offsets prioritised in the country where the emissions being offset occurred.
Leakage	The standard under which the offset is generated must have a mechanism to address changes in emissions outside the project boundary due to the project's implementation.
Permanence	Offsets purchased from a project to have a minimum life of 25 years with a longer term preferred. The standard under which the offset is generated to have a mechanism for dealing with emissions reversal, e.g. bushfire.
Transparency	Offsets purchase and surrender detail to be publicly disclosed including key offset information (type, source, methodology and accrediting organisation).
Verification/Registration	Offsets to have independent verification through recognised national/international standards and be listed and tracked in a publicly transparent registry.
Vintage	Offsets vintage to be close in time not greater than five years to when the emission occurred.

Note: where APA has an obligation to purchase offsets for compliance purposes, stakeholder offset (or equivalent) criteria requirements may differ to the above criteria. In such instances the above criteria may not apply.



CASE STUDY

Aak Puul Ngantam project

Partnering to support Savanna Fire Management

High-intensity late season dry fires in the tropical Savanna regions account for 3% of Australia's greenhouse gas emissions.¹

In FY23 APA contributed to reducing these emissions by purchasing 18,830 Indigenous Savanna Fire Management ACCUs from Aak Puul Ngantam Ltd (APN Cape York). We are proud to have entered into a three-year partnership with APN Cape York to continue this collaboration going forward.

APN Cape York is a not-for-profit organisation and registered charity wholly owned by Southern Wik and Kugu Traditional Owners to look after their diverse natural resources on their traditional homelands in Far North Queensland.

Under APN Cape York's Savanna Burning Project, Indigenous Rangers actively manage Savanna Greenhouse Gas emissions in the Southern Aurukun region of Cape York, an area of major ecological and cultural significance. They use Indigenous fire management knowledge and practices such as 'cool' burns early in the season to reduce fuel load, leading to decreased emissions from large, hot fires in the late dry season.

APN Cape York uses funds raised by selling ACCUs to employ and train rangers, support educational activities and invest in infrastructure.

¹ Department of Environment and Science QLD, Case Study Indigenous Savanna Burning Project, Cape York, North Queensland <https://www.des.qld.gov.au/climateaction/take-action/case-studies/indigenous-savanna-burning-project> viewed 17 August 2023.



Reflecting climate-related risks and opportunities in our strategy

As an energy infrastructure business, climate-related risks and opportunities have a critical role in informing APA's strategy.

We use scenario analysis to assess physical and transition risk, and our assessment of climate-related risks and opportunities plays an important role in shaping our business strategy. We actively monitor for opportunities from emerging technology developments by focusing on future fuels and our Pathfinder Program.

We assess risks and opportunities across the following timeframes in line with TCFD guidance:

- short-term: (0–3 years) corresponds mainly to risks and opportunities impacting APA's existing operations and active projects
- medium-term: (4–10 years) mainly impacts on project investment decisions
- long-term: (greater than 10 years) contributes to formulating our broader business strategy and planning for energy transition and technology trends.

In addition to informing our business strategy, climate-related considerations are also integrated into business decision making on a day-to-day basis. Climate-related risks and alignment with our Climate Transition Plan are assessed as part of our Investment Committee due diligence process; our internal carbon abatement price is applied to emissions reduction and avoidance initiatives as well as stay-in-business projects; and our corporate risk management framework assists with identifying, assessing and managing climate-related risks.

Refer to *Metrics and targets* section for further information on APA's internal carbon abatement price, and *Risk management* section for further information on APA's approach to managing climate-related risks within our corporate risk framework.

In our 2022 Climate Transition Plan, we committed to disclose certain metrics on climate-related risks and opportunities, including the percentage of revenue from assets that support the energy transition, and the percentage of revenue from activities that are exposed to transition risk. Our FY23 focus for metric development has been on greenhouse gas emissions, including enhancing Scope 3 reporting — refer to the *Metrics and targets* section for further information. This has meant we require more time to determine calculation methods and data sources for our planned metrics on climate-related risks and opportunities. Our approach to transition and physical climate risk is described further as follows.

Transition risks and opportunities

Our business strategy aims to manage transition risks and opportunities for our gas infrastructure assets, while pursuing transition-related growth opportunities in emerging areas (contracted renewables and firming, electricity transmission and future fuels).

Assessing transition risk for our gas assets

APA's gas infrastructure and gas power assets present risks to manage and opportunities to be realised. While there are a wide range of long-term demand scenarios, we see gas infrastructure playing a key role in the energy transition to firm renewables, support hard-to-abate industries and provide energy solutions for the resources sector. In FY22, APA completed a stranded asset scenario analysis. We assessed a mix of four power generation and gas pipeline assets under several scenarios aligned with the Paris Agreement. The results have guided our assessment of potential financial impacts from transition risks and have been incorporated in our corporate risk register and risk processes.

Insights from the analysis have also been reflected in our business strategy and decision making. The analysis confirmed the need for additional capacity on the South West Queensland Pipeline and informed APA's progression with the Stage 2 expansion to add a further compressor station. The analysis also informed our strategy to explore further expansion of renewables in the North West Minerals Province (Mt Isa region).

Refer to pages 41–50 of our [Climate Transition Plan](#) for further information on the stranded asset scenario analysis assumptions, limitations and results.

Following the scenario analysis, in FY23 we implemented an in-house East Coast Gas Model to further integrate scenario analysis in business planning. The model forecasts gas market outcomes out to 2050, in alignment with APA's planning horizon for our Climate Transition Plan. The model can support a range of demand scenarios and sensitivity analyses. We are now applying the model in financial planning, including for carrying value assessments, useful asset life assessments, asset management planning and new investment proposals.

The role of gas in Australia's energy transition

Gas will play an important and ongoing role in Australia's energy transition in three ways:

FIRMING RENEWABLES

- It is essential we build out renewables at pace and the Australian Government's ambition through to 2030 is significant. Natural gas is essential for an orderly energy transition as coal generation is retired. Gas complements renewable generation, providing critical firming to support the intermittent nature of renewable generation.
- The Net Zero Australia study¹ has confirmed the need to materially increase gas power generation capacity to support the energy transition – all six scenarios see it increasing with the majority showing a doubling of gas-fired generation capacity to support renewables.

POWERING ESSENTIAL AUSTRALIAN INDUSTRY

- Decarbonising Australian manufacturing is complex and expensive – turning the gas off is not an option for those industries that rely on high-heat/high-energy processes where there is no current commercial alternative e.g. cement, glass, aluminium, steel and feedstock for fertiliser.

POWERING REMOTE-GRID SYSTEMS AND DISPLACING CARBON INTENSIVE FUELS

- There is a significant opportunity to displace diesel use across the resources sector through the use of renewable firmed by gas in the immediate term. The resources sector is currently a major consumer of diesel fuel to power locomotives, haul trucks, excavators and other mining equipment.

APA's climate-related transition risks

Transition risks				
Legend: short-term (S) (0-3 years), medium-term (M) (4-10 years) and long-term (L) (10+ years)				
POLICY AND LEGAL RISKS				
Risk	Timeframe	Assets affected	Potential impacts	Key Mitigations/Controls
New climate-related policy action affecting APA operations				
Expanded carbon pricing or emissions regulation, changes in gas substitution policies or gas project approvals	S M L	Gas infrastructure, power generation	<ul style="list-style-type: none"> • Financial impacts due to reduced demand and/or supply of natural gas 	<ul style="list-style-type: none"> • Implementation of Climate Transition Plan • Customer-focused business strategy • Scenario analysis applied in business planning
Changes in government priorities, procurement processes, or R&D and deployment incentives for clean technology and renewables	S M L	Electricity transmission, Pathfinder Program		
Regulatory compliance and climate-related litigation				
Non-compliance with emissions reporting obligations or Safeguard Mechanism obligations	S M L	Group-wide	<ul style="list-style-type: none"> • Fines • Reputational damage • Securityholder divestment 	<ul style="list-style-type: none"> • APA Greenhouse Gas Emissions Reporting Procedure • Governance structures, including Portfolio Emissions Management Group and Safety and Sustainability Committee • Emerging issues management process • Annual Climate Report disclosures
Non-compliance with climate-related disclosure obligations, climate-related litigation	S M L	Group-wide		

¹ The Net Zero Australia Study is available at www.netzeroaustralia.net.au/.

**Our strategy
(continued)**

Transition risks				
Legend: short-term (S) (0-3 years), medium-term (M) (4-10 years) and long-term (L) (10+ years)				
TECHNOLOGY RISKS				
Risk	Timeframe	Assets affected	Potential impacts	Key Mitigations/Controls
Technology				
Competition for scarce skills or resources needed for new technology expansion	S M L	Electricity transmission, renewables, Pathfinder Program	<ul style="list-style-type: none"> Technology project delays Project financial non-performance 	<ul style="list-style-type: none"> Workforce readiness assessment completed in FY23 Investment Committee process
Unsuccessful investments in experimental technologies	S M L	Pathfinder Program		
MARKET RISKS				
Risk	Timeframe	Assets affected	Potential impacts	Key Mitigations/Controls
Reduced demand for natural gas and gas transportation				
Faster than expected substitution of natural gas domestically or in the export market due to the energy transition, or the development of new gas supply is more limited than expected	S M L	Gas infrastructure assets	<ul style="list-style-type: none"> Financial impacts – reduced revenue and stranded assets 	<ul style="list-style-type: none"> Scenario analysis applied in business planning Diversified business strategy targeting growth in low emission asset classes Pathfinder Program
REPUTATIONAL RISKS				
Risk	Timeframe	Assets affected	Potential impacts	Key Mitigations/Controls
Social licence				
Increased stakeholder concern over natural gas	S M L	Gas infrastructure, power generation	<ul style="list-style-type: none"> Securityholder divestment Public opposition to gas infrastructure expansion projects Challenges attracting and retaining talent Constrained access to capital and insurance 	<ul style="list-style-type: none"> Engagement with key stakeholders (landowners, producers, customers, government etc) Monitor expectations, major trigger events within the community and APA's reputation score Community and Social Performance initiatives and programs working with First Nations Peoples Implementation of APA's Climate Transition Plan and annual reporting against progress
Opposition to new asset developments	S M L	Group-wide		
Climate Transition Plan commitments fail to meet stakeholder expectations				
Commitments or progress fail to meet expectations	S M L	Group-wide	<ul style="list-style-type: none"> Securityholder divestment Reputational damage Challenges attracting and retaining talent Constrained access to capital and insurance Financial losses from write-offs of offset investments 	<ul style="list-style-type: none"> Governance structures, including Portfolio Emissions Management Group and Safety and Sustainability Committee Annual reporting on Climate Transition Plan progress Offsets Criteria and scorecard
Stakeholder criticism for use of offsets towards targets, or APA is associated with an offset project or class of offsets that is inconsistent with our Offset Criteria	S M L	Group-wide		

APA's climate-related opportunities

RESOURCE EFFICIENCY				
Opportunity	Timeframe	Asset class	Potential benefit	Management plans
Methane emission reduction	S M L	Gas infrastructure	<ul style="list-style-type: none"> Reduced Scope 1 emissions Increased customer revenue and/or lower costs 	<ul style="list-style-type: none"> Climate Transition Plan Incorporation of the Methane Guiding Principles
Fuel gas savings through compressor efficiency improvements	S M L	Gas infrastructure	<ul style="list-style-type: none"> Reduced Scope 1 emissions Reduced customer costs 	<ul style="list-style-type: none"> Climate Transition Plan
ENERGY SOURCES				
Opportunity	Timeframe	Asset class	Potential benefit	Management plans
Renewable electricity	S M L	Group-wide	<ul style="list-style-type: none"> Reduced Scope 2 emissions 	<ul style="list-style-type: none"> Implemented renewable electricity procurement strategy, achieved 100% renewable electricity target for FY23
Compressor electrification	S M L	Gas infrastructure	<ul style="list-style-type: none"> Reduced Scope 1 emissions 	<ul style="list-style-type: none"> Electrification feasibility studies ongoing
Zero direct emissions vehicles	S M L	Group-wide	<ul style="list-style-type: none"> Reduced Scope 1 emissions 	<ul style="list-style-type: none"> Zero direct emissions vehicle fleet goal by 2030 strategy
PRODUCTS AND SERVICES				
Opportunity	Timeframe	Asset class	Potential benefit	Management plans
Development and operation of electricity transmission assets to support increased need for renewable electricity	S M L	Electricity transmission	<ul style="list-style-type: none"> Business growth Contribution to grid decarbonisation by enabling renewables 	<ul style="list-style-type: none"> Business strategy and dedicated Electricity Transmission division
Need for expanded gas generation capacity for grid firming and peaking	S M L	Gas generation, gas infrastructure	<ul style="list-style-type: none"> Business growth Contribution to grid decarbonisation by enabling renewables 	<ul style="list-style-type: none"> Business strategy
Remote-grid renewables and integrated solutions for large industrial customers	S M L	Renewable generation, remote-grid gas generation, gas infrastructure	<ul style="list-style-type: none"> Business growth Contribution to customer decarbonisation 	<ul style="list-style-type: none"> Business strategy
MARKETS				
Opportunity	Timeframe	Asset class	Potential benefit	Management plans
Government incentives and grants for clean energy projects	S M L	Gas infrastructure	<ul style="list-style-type: none"> Subsidies/co-investment that de-risk future fuel investments 	<ul style="list-style-type: none"> Participating in government initiatives through the Pathfinder Program
Renewable Energy Zones (REZs)	S M L	Electricity transmission, gas infrastructure	<ul style="list-style-type: none"> Business growth opportunities from the tender for construction of transmission infrastructure 	<ul style="list-style-type: none"> Participating in REZ tender processes
Increased energy demand from mining sector to supply critical minerals	S M L	Renewable generation, remote-grid gas generation, gas infrastructure	<ul style="list-style-type: none"> Business growth Contribution to customer decarbonisation 	<ul style="list-style-type: none"> Business strategy
Carbon capture and storage	S M L	Gas infrastructure, gas generation	<ul style="list-style-type: none"> Reduced Scope 1 emissions 	<ul style="list-style-type: none"> Pathfinder Program

RESILIENCE				
Opportunity	Timeframe	Asset class	Potential benefit	Management plans
Supply chain emissions	S M L	Group-wide	<ul style="list-style-type: none"> Reduced Scope 3 emissions Improved resilience to transition risk in supply chain 	<ul style="list-style-type: none"> Scope 3 goal to be developed before or in conjunction with the next Climate Transition Plan in 2025
Renewable gases	S M L	Gas infrastructure, gas power generation	<ul style="list-style-type: none"> Improved resilience to transition risk due to reduced value chain (end user) emissions 	<ul style="list-style-type: none"> Pathfinder Program

Physical climate risks

APA is exposed to a range of physical climate risks from extreme weather events and the incremental impacts of climate change.

The physical impacts of climate change could have many and varied implications for the performance and integrity of assets across APA's portfolio, from solar power farms to electricity and gas transmission.

Physical climate risks are assessed and catalogued in our corporate risk framework (refer to the *Risk management* section for further information). At the asset level, safety management studies are performed and include consideration of physical climate risks in the creation of associated response and mitigation plans.

Risk	Timeframe	Assets affected	Potential impacts	Key Mitigations/Controls
Chronic risks: Longer-term shifts in climate patterns (e.g. sustained higher temperatures that may cause sea level's to rise or chronic heat waves).	S M L	Group-wide	<ul style="list-style-type: none"> Impacts on health and safety of APA employees Changes in maintenance requirements Increased operating and maintenance costs due to operation of assets outside of intended environmental conditions Environmental breaches due to operation of assets outside of intended environmental conditions Decrease in asset performance 	<ul style="list-style-type: none"> Natural hazards management plans (including Working Outdoors Excessive Heat Protocol, Severe Weather Management Plan, Severe Weather Action Plan and related guidelines and training materials)
Acute risks: Event-driven risks, including increased severity of extreme weather events, such as cyclones, heatwaves or floods.	S M L	Group-wide	<ul style="list-style-type: none"> Impacts to health and safety of APA employees and the public Major service disruptions Increased cost of insurance premiums and potential inability to secure adequate coverage Reputational damage from service interruptions Environmental breaches due to asset damage 	<ul style="list-style-type: none"> Natural hazards management plans (including Bushfire, Cyclone and Flood Management Plans, Action Plans and associated protocols, guidelines and training materials)

In FY23, we engaged a leading international physical climate change risk consultancy and embarked on a program to enhance our understanding of physical climate risks to our majority-owned assets.

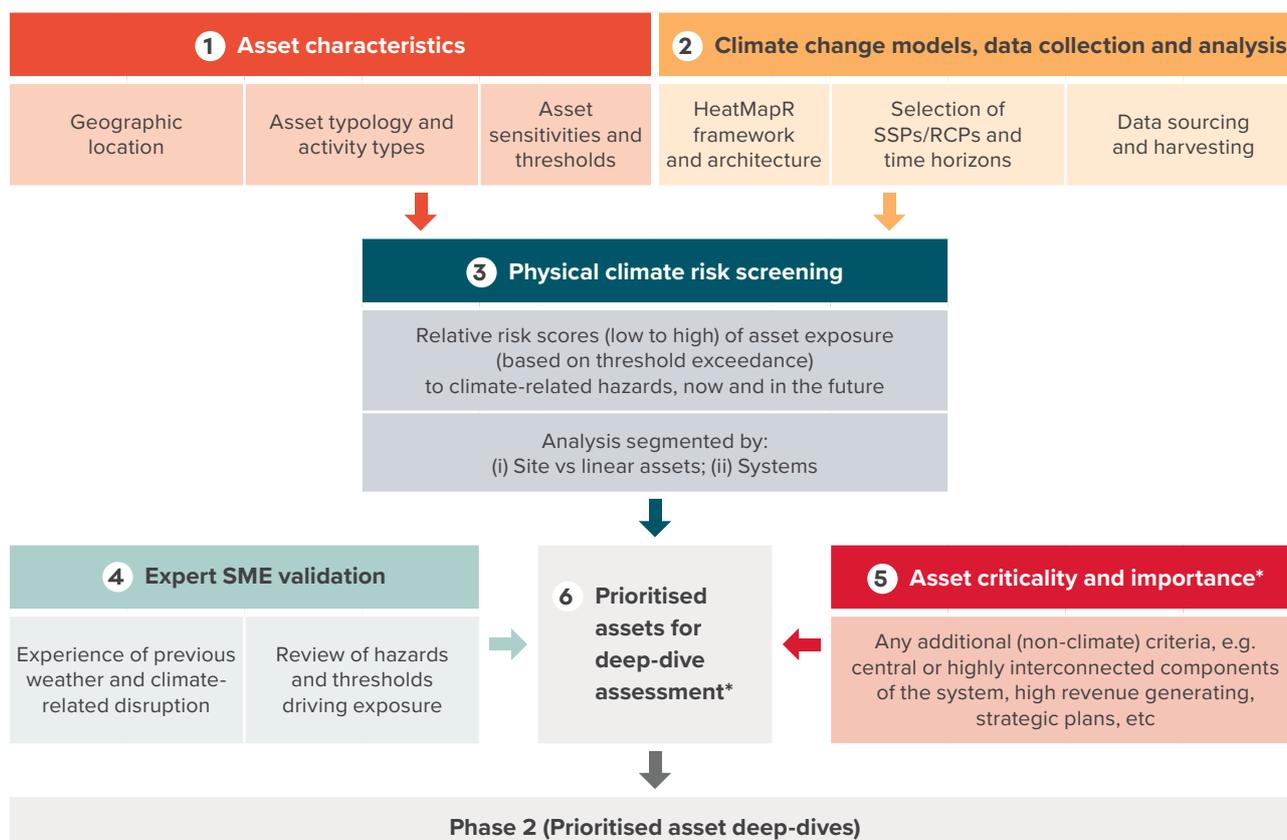
We adopted a phased approach, whereby Phase 1 involved a portfolio-level screening of exposure to physical climate risks across APA's assets (including renewable energy and gas-fired power generation, electricity transmissions, energy storage, gas processing and pipeline assets).¹ The screening was applied for the present-day and a range of future scenarios (centred on 2050 and 2080) under the 'medium' (SSP2/RCP4.5) and 'high' (SSP5/RCP8.5) emissions scenarios.

The proprietary screening tool (HeatMapR) incorporated the latest modelled climate data and was tailored to APA's operations by incorporating information on asset-specific climate sensitivities and critical operational thresholds, e.g. days over 40°C. This was facilitated through engagement with our key internal subject matter experts (SMEs).

A primary output of the physical climate risk screening, using HeatMapR, is a relative risk score. This captures a score for each asset on a scale from 0 to 1 relative to the whole portfolio. Scores combine information on climate hazard exposure and the perceived climate sensitivity of activities associated with assets taking into account their geographic location. The relative risk scores inform the assets to be considered for prioritisation.

Phase 2 of this process will focus on deep-dives into prioritised assets. Inputs into the prioritisation process will include both the results of this portfolio-level physical climate risk screening and other (non-climate) considerations such as the criticality of assets, the revenue they generate and any broader Group-level strategic plans (e.g. expansion of renewable power generation within the portfolio).

Overview of the screening assessment methodology



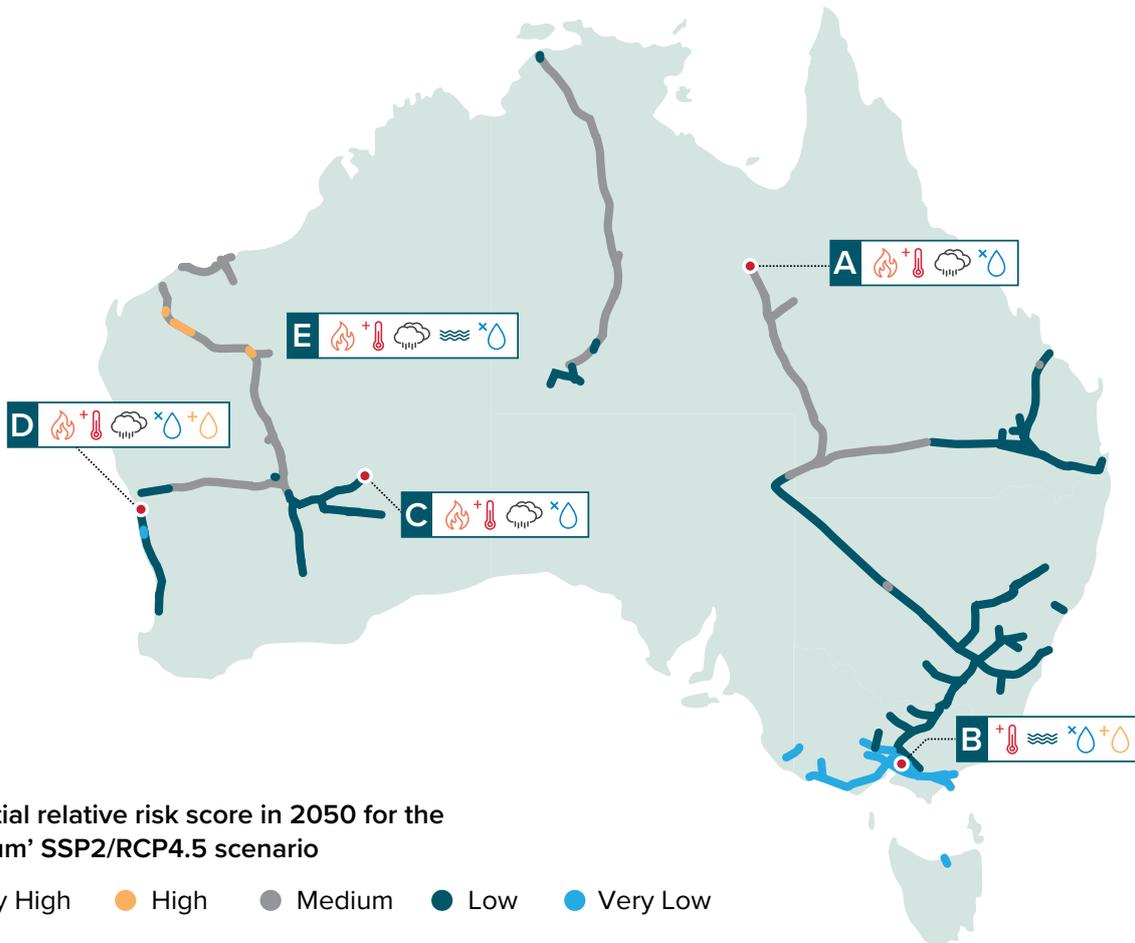
* Part of Phase 2 scope.

¹ Assets included in the physical climate risk assessment: Amadeus Gas Pipeline, Berwyndale - Wallumbilla Pipeline, Carpentaria Gas Pipeline, Central Ranges Pipeline, Eastern Goldfields Pipeline, Kalgoorlie Kambalada Pipeline, Moomba Sydney Pipeline, Moomba to Sydney Ethane Pipeline, Parmelia Gas Pipeline, Pilbara Gas System, Reedy Creek Wallumbilla Pipeline, Roma Brisbane Pipeline, SESA Pipeline, South West Queensland Pipeline, Victorian Transmission System, Wallumbilla Gladstone Pipeline, Yamarna Gas Pipeline, Kurri Kurri Lateral Pipeline, Dandenong Gas Storage, Daandine Power Station, Basslink, Diamantina Power Station Complex, Gruyere Power Station including Solar Farm and Battery, Badgingarra Solar and Wind Farm, Darling Downs Solar Farm, Emu Downs Solar and Wind Farm, Dugald River, Goldfield Gas Pipeline, Northern Goldfields Interconnect Pipeline, Mondarra Gas storage and processing, Western outer ring main.

Physical risks overview for the chosen scenario

At a portfolio level, relative risk scores were assigned to all site and linear assets (including specific locations). The relative risk scores, indicative of future potential risks, are presented on the graphics below for a 2050 scenario. Site and linear assets with the highest relative risk scores are highlighted showing the specific climate hazard types.

The relative risk scores output by the physical climate risk screening assessment support the prioritisation of assets for further consideration. During Phase 2 we will apply our enterprise risk management procedure and risk levels in the deep-dive analysis on prioritised assets.



Extreme fire weather days	High temperatures and more frequent heat waves
Uncertainty around future rainfall and tropical cyclone projections	Fluvial and coastal flooding
Drought/dry spell	High humidity

Assets with highest potential relative risks in 2050 based on the 'medium' SSP2/RCP4.5 scenario

A Diamantina Power Station Complex	■	■	■		■	
B Dandenong LNG Storage Facility		■		■	■	■
C Gruyere Power Station	■	■	■		■	
D Mondarra Gas Storage and Processing	■	■	■		■	■
E Goldfields Gas Pipeline	■	■	■	■	■	

The table below presents the physical climate hazards and their potential impacts

Physical climate hazard	Climate risks	Potential impacts
 Extreme fire weather days	<ul style="list-style-type: none"> Increased frequency of 'extreme' fire weather days. 	<ul style="list-style-type: none"> Wildfires have the potential to result in health and safety hazards, property damage and business interruptions.¹
 High temperatures and more frequent heat waves	<ul style="list-style-type: none"> High temperatures and more frequent heatwaves: Increases in the number of days above 40°C, and higher maximum daily temperatures on hot days are projected to occur in future. Heatwaves are also projected to increase in frequency and duration. 	<ul style="list-style-type: none"> High temperatures and heatwave conditions can impact gas turbine performance, gas storage and pipeline infrastructure and pose employees health and safety risks and related operational impacts.
 Uncertainty around future rainfall and tropical cyclone projections	<ul style="list-style-type: none"> Future projections of rainfall and tropical cyclones are particularly uncertain, with models often presenting opposing possible futures. The portfolio screening included worst-case projections when considering wetter conditions. 	<ul style="list-style-type: none"> More frequent and intense extreme rainfall increases the potential for property damage, health and safety concerns, business interruption, erosion of buried pipework and impacts at river crossings. Tropical cyclone winds are a risk to infrastructure and may disrupt operations.
 Fluvial and coastal flooding	<ul style="list-style-type: none"> Maximum flood depth during a 1-in-100 year flood including fluvial and coastal flooding. Coastal flooding includes the effect of sea level risk and storm surges. 	<ul style="list-style-type: none"> Fluvial flooding may impact infrastructure and material handling and storage operations and pose health and safety and site access risks. APA's locations in very close proximity to the coastline are most exposed to coastal flooding.
 Drought/dry spell	<ul style="list-style-type: none"> Drought/dry spell: Drought is a current feature of regional climate variability, largely driven by the El Niño Southern Oscillation (ENSO). The portfolio-level screening considered a 'worst-case' scenario by making reference to projections with the driest conditions. Increases in the duration of drought, when arising, may result in higher water stress. 	<ul style="list-style-type: none"> Prolonged and additional dry spells may affect soil moisture content and shallow groundwater levels, leading to potential shrinkage of clay-rich soils and subsidence, potentially impacting the resilience of underground pipelines. Changes in water supply and demand have the potential to impact water requirements (e.g. abstraction and discharge for cooling purposes).
 High humidity	<ul style="list-style-type: none"> High number of days when humidity >70% can affect blade maintenance at wind farms and the cooling capabilities at power generators. 	<ul style="list-style-type: none"> High humidity can negatively impact blade maintenance at wind farms; cooling capabilities at power generators; and has the potential to cause electrical faults and corrosion of transmission infrastructure.

¹ The portfolio-level screening only considered weather conditions suitable for wildfires and did not take into account the availability of fuel (i.e. vegetation) nor any existing or planned risk mitigation actions. These will be considered as part of Phase 2.

Metrics and targets



IN FY23, WE:

Set our

**INTERNAL CARBON
ABATEMENT PRICE**

Enhanced our emissions data disclosure and transparency publishing a

**CLIMATE DATA BOOK
AND METHODOLOGY**

for the first time

Completed the Design phase of our

**NET ZERO AND
CLIMATE PROGRAM**

with Embed phase completion targeted for FY24

Image: Badgingarra Solar Farm

Since releasing our Climate Transition Plan last August our focus has been on embedding the necessary structures, processes and systems to integrate our approach to climate across our business.

To achieve our overarching net zero operational emissions goals, we made a series of interim commitments in our 2022 Climate Transition Plan. While there is still much to do, we made solid progress in FY23 that we will build on in FY24 and beyond.

Action on our Climate Transition Plan

For our gas infrastructure assets, we achieved a 6.7% net reduction in emissions relative to our FY21 base year, placing APA on track towards our 2030 target. We also established a target for operational methane emissions aligned with the [Global Methane Pledge](#), progressed incorporation of the Methane Guiding Principles, and completed a national compressor electrification feasibility study.

For our power generation infrastructure assets, APA's FY23 result was a 5.3% reduction in emissions intensity relative to FY21. This outcome was unfavourably impacted by five-yearly maintenance at Badgingarra Wind Farm which reduced renewable generation output. While progress is likely to be non-linear we remain confident of achieving our 2030 emissions intensity goal. Commissioning the Dugald River Solar Farm in May 2023 made a minor contribution towards our emissions reduction goal for FY23, with a more material impact expected in future years.

In FY23, we also established a dedicated Electricity Transmission division and completed the acquisition of the Basslink interconnector. We continued to develop our capabilities across the full lifecycle of electricity transmission assets, supporting our ambition to enable renewables through transmission investments.

Cross-cutting corporate initiatives contributed to emissions reductions across APA's three main asset classes.

We delivered on our target to reach 100% renewable electricity procurement by FY23 by:

- purchasing large-scale generation certificates
- reducing APA's Scope 2 purchased and acquired electricity emissions to zero.

This is a particularly important milestone for our electricity transmission assets, where Scope 2 purchased and acquired electricity emissions account for most of the emissions we can control. Meanwhile, we initiated our 100% zero direct emissions vehicle (ZDEV) strategy, starting by leasing of ZDEVs and commencing installation of charging infrastructure at certain sites.

We continued to focus our efforts on addressing value chain emissions by establishing Scope 3 emissions reduction pathways to inform our planned introduction of a Scope 3 goal.

We have:

- implemented a new commitment to fully offset all business travel
- commissioned our first-ever hybrid microgrid at Gruyere Gold Mine, helping our mining customer to reduce the emissions intensity of its on-site generation
- continued to make a contribution towards wider decarbonisation of the gas value chain through our Pathfinder Program.

We delivered several important supporting actions during the year, including:

- the implementation of our internal carbon abatement price
- emissions data improvements
- planning for the Safeguard Mechanism reforms.

FY23 PROGRESS

Gas infrastructure

Metric	Target	FY23 Performance
Greenhouse gas emissions reduction from gas infrastructure (% reduction in net Scope 1 and Scope 2 emissions relative to FY21 base year)	↓ 30% (net) by 2030	↓ 6.7% (net) ↓ 3.7% (gross)

Across APA’s gas infrastructure asset class, gross (adjusted) emissions in FY23 were 531,982 t CO₂-e, which is a 3.7% reduction from FY21 levels of 552,257 t CO₂-e (adjusted). Including the surrender of offsets, our net emissions were 515,219 t CO₂-e. This is a 6.7% net reduction relative to FY21, placing APA on track for our 2030 target of a 30% reduction.

We delivered a 3.7% gross reduction in our greenhouse gas emissions primarily through:

- Procurement of 100% renewable electricity in FY23 which resulted in zero Scope 2 emissions for our gas infrastructure assets.
- A reduction in fuel gas usage by 61,840 GJ compared to FY21. Although this was partly due to operational fluctuations, this result reflects fuel savings from compressor efficiency optimisation initiatives on our South West Queensland (SWQP) and Moomba to Sydney (MSP) pipelines.

For a complete breakdown of APA’s climate data refer to our [FY23 Climate Data Book](#).

Re-baselining for our Orbost divestment and methodology changes

In FY23, we re-baselined APA’s FY21 (base year) inventory and FY22 emissions values, in accordance with the Greenhouse Gas Protocol and APA’s re-baselining principles. The main changes were principally due to:

- divesting the Orbost Gas Processing Plant (OGPP) with operational control ceasing in May 2023
- a change in the National Greenhouse Energy Reporting (NGER) (measurement) Determination relating to fugitive emissions from gas storage and our distribution networks.

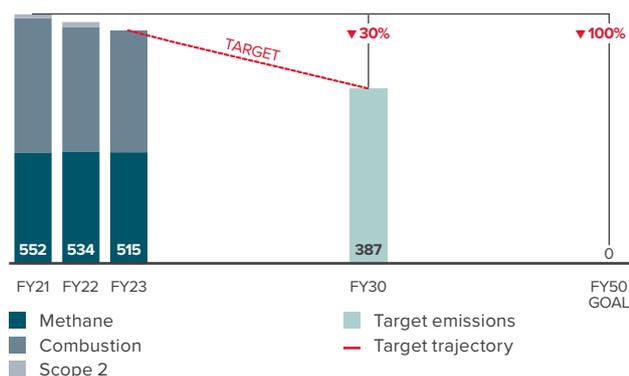
The re-baselining lowered APA’s base year gas infrastructure emissions from 567,404 t CO₂-e to 552,257 t CO₂-e. This resulted in proportionate adjustments to the target emissions trajectory needed to achieve our commitment of a 30% emissions reduction by 2030 and a 3.3% annual emissions reduction (relative to the revised FY21 baseline).

In FY23, APA purchased and surrendered 55,100 of offsets to meet our annual net emissions reduction targets for the OGPP asset whilst it was under our operational control during FY22 and FY23. This was in addition to the 36,300 offsets surrendered to meet our updated FY22 and FY23 gas infrastructure requirements following re-baselining.

All data and graphs in this report are based on our re-baselined emissions inventory. As such, they exclude OGPP and associated offsets purchased to meet Climate Transition Plan requirements for this site while it was under our operational control.

Our [FY23 Climate Data Book](#) provides further detail on the FY23 re-baselining and APA’s re-baselining principles also refer to the [APA FY23 Greenhouse Gas Emissions and Energy Calculation Methodology](#).

Gas infrastructure emissions (adjusted) (net) projection to 2030 target (kt CO₂-e)



Block Mains Replacement Project (BMRP) in the Allgas Distribution Network

APA operates and has an ownership interest in the Allgas gas network which is owned by Allgas Energy Pty Ltd. Methane emissions from this asset contribute to approximately 20% of our total methane emissions.

The Block Mains Replacement Project (BMRP) aims to minimise the associated environmental impacts by replacing cast iron, unprotected steel and polyvinyl chloride mains with high-density polyethylene.

In FY23, we accelerated this project by increasing the mains replacement rate from 17.5 kilometres to 35 kilometres per year.

CASE STUDY

Wallumbilla compressor electrification

APA's Climate Transition Plan identified the Wallumbilla compressor station as a strong candidate to deliver emission savings by electrifying select compressors.

We began developing the business case for Wallumbilla electrification in FY23. Our preferred option, with a refined cost estimate, is projected to achieve our emissions reduction target for this initiative but at a higher cost than estimated in the Climate Transition Plan.

This work highlighted key challenges associated with compressor electrification:

- grid connection for the site (including the time taken to confirm grid connection options and costs with the network operator), with the electricity supply available impacting viable electrification options
- lead times for equipment to construct new electric motor drive units and convert existing compressor stations
- the time required for building out the electricity distribution infrastructure required to support electric compressors.

Completed national compressor electrification feasibility study

APA's Climate Transition Plan identified compressor electrification as a material opportunity that supports our 2030 gas infrastructure emissions reduction target. In FY23, we engaged a consultant to assess 25 APA gas compressor stations across Australia and provide insights into potential electrification options. The sites were assessed using a multi-criteria assessment framework to identify the compressor stations with the highest potential for emissions reduction for the lowest marginal abatement cost and effort.

The study provided valuable insights that will help APA to prioritise the most suitable compressors for further assessment. It also confirmed the higher costs associated with electrifying remote sites, primarily due to the cost of establishing renewable energy microgrids and complex grid connections. It is likely that remote compressor sites which are not close to an electricity grid will not be commercially viable to electrify. The study also identified sites that might support Scope 3 emissions reduction – sites where APA owns the infrastructure but does not operate the asset, such as the Victorian Transmission System.

Reducing gas infrastructure methane emissions

Improving APA's management of methane emissions is a focus for achieving our gas infrastructure and our new 2030 methane emissions target.

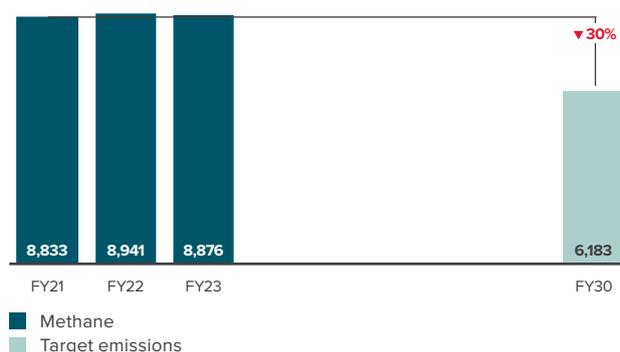
Our FY21 base year methane emissions were 8,833 tonnes (adjusted). Due to the methane reporting method we currently use, our methane numbers (adjusted) have remained relatively flat through to FY23.

Incorporating the Methane Guiding Principles (MGPs) into our business was progressed in FY23.

Key progress included:

- introducing a target to reduce operational methane emissions in APA's gas infrastructure portfolio by $\geq 30\%$ by 2030 (compared with our FY21 base year)
- deploying leading-edge methane technology to improve methane measurement accuracy (see *Improving methane emissions* measurements case study), which will support prioritisation of mitigation opportunities and allow us to better reflect the resulting emissions reduction impact in our reporting
- actively participating in MGPs initiatives, including sponsoring the Methane Inventory Systematic Tool (MIST) update.

Methane emissions (adjusted) (tonnes)



CASE STUDY

Portable flaring to reduce methane emissions from operations

Portable flares are being used to reduce methane emissions from pipeline maintenance operations works including cleaning inspections. During pigging maintenance and operations, a mechanical device is launched through the pipeline to clean the pipeline and detect any corrosion, deformations, and metal loss from pipeline walls. Reducing pressure in sections of the pipeline infrastructure during such operations can result in methane emissions if product gas is vented into the atmosphere. Flares are emission control devices that burn these flammable gases and so reduce methane emissions.

In FY23, a portable flare was deployed on a range of maintenance activities and projects to reduce emissions.



Image: Service provider preparing aircraft for performing the aerial methane surveys

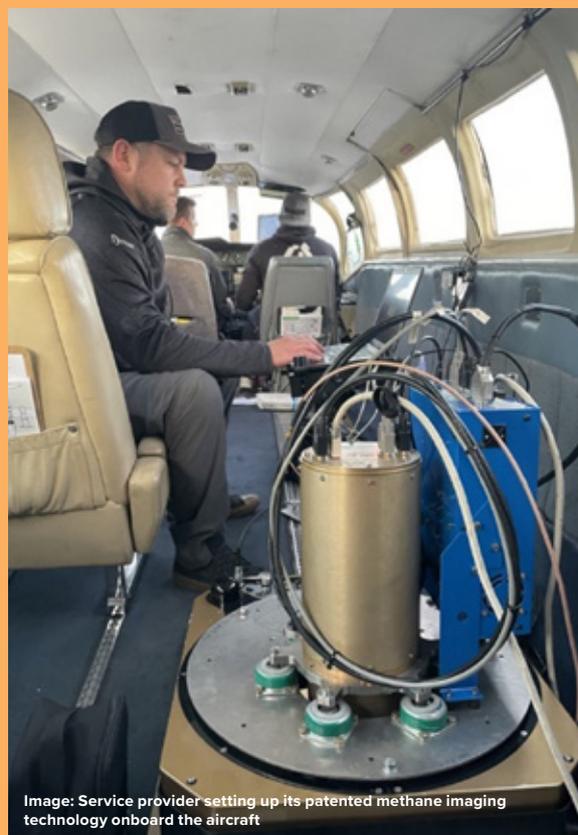


Image: Service provider setting up its patented methane imaging technology onboard the aircraft

CASE STUDY

Improving methane emissions measurements

Enhancing methane loss measurement from our gas transmission infrastructure was an FY23 focus area in APA's Climate Transition Plan. As part of this focus, we undertook two real-time measurement projects in FY23 to:

- confirm that no significant sources of ongoing methane emissions exist
- better understand the sources and scale of our methane emissions
- test new technologies, supporting enhanced methane measurement
- detect and repair sources of methane emissions.

Aerial surveys: In May and June 2023, an aerial detection services provider conducted high spatial resolution aircraft monitoring over three APA gas transmission pipelines: Goldfields Gas Pipeline (GGP), South West Queensland Pipeline (SWQP) and Moomba Sydney Pipeline (MSP); a total of 3,963 kilometres.

The survey included compressor stations and associated infrastructure. Patented imaging technology that detects material methane sources (over 10kg/hour) in moderate wind speed conditions was used.

While an incidental methane emission source was detected associated with commissioning activities at an above-ground facility attached to the SWQP, no significant sources of ongoing methane emissions were identified.

Ground measurements: In June 2023, APA engaged a testing and inspection organisation to conduct a methane leak survey to identify any methane emission sources. Methods applied included optical gas imaging cameras, laser surveying and fluid tests. This work highlighted previously unidentified methane emission sources, with sources being addressed or scheduled for repair if they could not be immediately fixed.

**Metrics and targets
(continued)**

FY23 PROGRESS

Power generation infrastructure

Metric	Goal	FY23 Performance
Greenhouse gas emissions intensity reduction from power generation infrastructure (% reduction)	↓ 35% by 2030	↓ 5.3%

In FY23, we achieved a 5.3% reduction relative to our FY21 base year, from 0.29 t CO₂-e/MWh to 0.27 t CO₂-e/MWh.¹

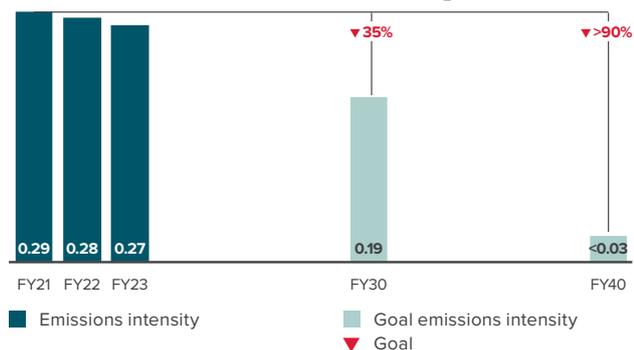
We delivered this through a combination of operational efficiency improvements, reduced demand from Diamantina Power Station and retiring Daandine Power Station. Our new 88 MW Dugald River Solar Farm was commissioned late in FY23. We expect it to contribute more strongly to reducing emissions intensity in FY24.

At the same time, five-yearly maintenance at our Badgingarra Wind Farm took it temporarily offline, reducing APA's FY23 renewables generation output and impacting our overall power generation infrastructure emissions intensity result. Without this interruption, we estimate our FY23, relative to FY21, reduction would have been approximately 8%.

In our Climate Transition Plan we acknowledge that the pathway to our emissions intensity goal will not be linear, with new investments resulting in stepped improvements. Although our FY23 result is tracking behind a 7.8% reduction requirement (if a linear decrease is applied from our FY21 base year to our 2030 goal year) we remain confident of achieving our 2030 goal. Looking forward, we expect Dugald River Solar Farm, other new renewable investments and removing the one-off impact of Badgingarra Wind Farm to drive stronger reductions in emissions intensity.

For a complete breakdown of APA's climate data refer to our [FY23 Climate Data Book](#).

Power generation infrastructure (gross) emissions intensity projection to 2030 goal (t CO₂-e/MWh)



¹ In FY23, total power generation Scope 1 and Scope 2 emissions (market method) were 781,029 t CO₂-e and total generation output 2,864,313 MWh.

Image: Justine (E&I Technician) at Dugald River Solar Farm



CASE STUDY

Dugald River Solar Farm

APA completed installation of the 88 MW Dugald River Solar Farm (DRSF) in North Queensland in FY23. The first renewable power generator in North West Queensland, this new asset will deliver lower-cost energy and reduced greenhouse gas emissions, with supply firmed by APA's existing gas-fired power generation assets.

DRSF is Australia's largest remote-grid solar farm with approximately 184,000 bi-facial solar PV panels.

DRSF is designed to support the decarbonisation aspirations of APA's customers, especially regional miners. It is forecast to generate more than 240 GWh per year of renewable generation.

FY23 PROGRESS

Electricity transmission

Enabling renewables through transmission infrastructure development

Metric	Goal	FY23 Performance
Renewable infrastructure enabled through electricity transmission investment (MW)	Contribute positively to grid decarbonisation measured by MW of enabled renewable infrastructure	Established Electricity Transmission division Completed the acquisition of Basslink Second-ranked consortium for Central-West Orana REZ

A key Climate Transition Plan commitment is investing in electricity transmission infrastructure that enables renewable energy penetration in Australia’s electricity grid.

Dedicated division: To support our transmission portfolio expansion and ensure it aligns with APA’s strategic goals, we established a dedicated Electricity Transmission division in FY23. This strengthened our internal capability across the lifecycle of electricity transmission assets: development, project delivery, operations and maintenance.

Basslink: In October 2022, we completed the acquisition of Basslink, the 370 kilometre sub-sea electricity interconnector between Victoria and Tasmania. This acquisition establishes APA as Australia’s only operator of sub-sea transmission infrastructure and represents a significant opportunity to grow our electricity transmission business in line with our business strategy and Climate Transition Plan.

Central-West Orana REZ: The New South Wales Government’s Central-West Orana Renewable Energy Zone (REZ) process provided highly valuable experience for the newly-formed Electricity Transmission division. APA’s shortlisting as the second-ranked consortium reflected the strong uplift in our transmission capability since establishing this new division.

Reducing emissions we can control

Supporting Action	FY23 Performance
Active program to reduce emissions we can control and apply best practice management techniques to managing line losses	↓ 98% in emissions we can control Implemented higher order NGERs method to enhance SF ₆ reporting

To support our overall electricity transmission goal of contributing positively to grid decarbonisation, our Climate Transition Plan commits us to reducing emissions we can control and applying best management techniques to managing line losses. Emissions from line losses are assessed to be out of our control in existing infrastructure. For new greenfield infrastructure, we have committed to applying best practice technology.

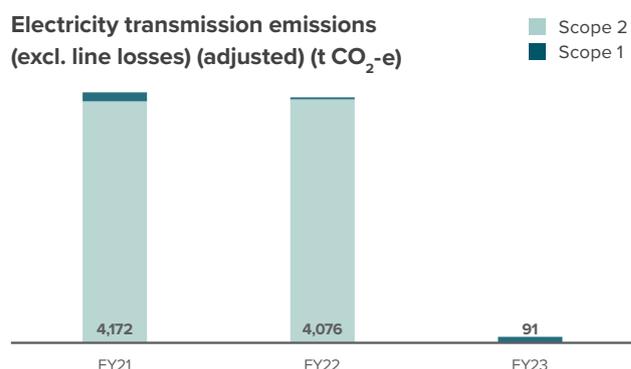
Our electricity transmission emissions (excluding line losses) comprise:

- carbon dioxide, methane and nitrous oxide (principally associated with the use of backup electricity generation, fleet vehicles and the use of electricity)
- sulphur hexafluoride (SF₆), which is an insulating gas contained in electrical equipment.

Our 100% renewable electricity procurement target has driven a substantial percentage reduction in these emissions compared to our FY21 base year.

Improved reporting supports more effective action as it allows us to quantify emissions and review options for managing them. In FY23, we enhanced the accuracy of transmission emissions reporting by including actual measured SF₆ emissions rather than estimates based on the National Greenhouse Energy Reporting (NGER) Measurement Determination default leakage rate.

For a complete breakdown of APA’s climate data refer to our [FY23 Climate Data Book](#).



**Metrics and targets
(continued)**

FY23 PROGRESS

Renewable electricity procurement

Metric	Target	FY23 Performance
Renewable electricity as a percentage of total electricity consumed (% of renewable electricity)	100% from FY23 onwards	100% Achieved

We achieved this target in FY23 by directly purchasing large-scale generation certificates (LGCs) from Daydream Solar Farm. As a result, APA reported zero Scope 2 emissions for purchased and acquired electricity in FY23.

APA’s electricity consumption is 21,563 MWh per year and we have contractual commitments with existing providers. Buying LGCs was assessed as the best short-term solution. In the near term, APA will explore options for entering into a bundled power purchase agreement that supports new sources of renewable electricity generation.

FY23 PROGRESS

Zero direct emission vehicle fleet

Metric	Goal	FY23 Performance
Zero direct emission vehicles (% of fleet)	100% by 2030	In progress 2% of fleet (5 of 307 vehicles) transitioned

A key challenge is market availability of suitable zero direct emissions vehicles (ZDEV): most of our fleet is light commercial and four-wheel drive vehicles, where ZDEV solutions are yet to mature. Meeting the 2030 goal is also dependent on the successful rollout of charging or ZDEV refuelling infrastructure across Australia, considering the remote locations where APA operates.

In FY23, we initiated the development of a staged strategy for reaching a 100% ZDEV fleet. By year end, we had transitioned 2% of APA’s 307-vehicle fleet by commencing leases for five electric vehicles. We also began installing charging infrastructure at Dandenong, the first priority site identified in our ZDEV fleet strategy.



Image: Emu Downs Wind Farm

FY23 PROGRESS

Value chain emissions

APA recognises the importance of decarbonising our value chain and the role we can play in working with our customers, partners and suppliers in achieving this outcome. By actively working together, APA can help to achieve shared objectives and outcomes that would not be possible if each participant acted alone.

APA has supported broader supply chain decarbonisation through participation in the following initiatives:

- Climate Leaders Coalition: supported the development of the Scope 3 Roadmap and the GasCo proof of concept
- Energy Transition Initiative: an active member and supported the phase 2 and 3 reports
- Net Zero Australia: sponsor.

Scope 3 emissions

Scope 3 emissions are indirect emissions (not included in Scope 2) that occur in a company’s value chain. APA calculates Scope 3 emissions consistent with the GHG Protocol Scope 3 Accounting and Reporting Standard and applies an operational control organisational boundary. This means that assets we own but do not operate are included as a Scope 3 emissions source.

In our 2022 Climate Transition Plan we estimated Scope 3 emissions for the first time for the FY20 reporting period. At the time, we highlighted the challenges associated with Scope 3 reporting such as categorisation of purchasing data, availability of data from assets operated by others and estimating methods for some categories. Whilst we still face these challenges, we have invested considerable time and effort into uplifting our reporting processes.

In this report, we report Scope 3 emissions for FY23 and historically for FY21 and FY22. Across FY21–FY23 we realigned emissions associated with assets APA owns but does not operate from Category 3 (fuel- and energy-related activities) to Category 15 (investments).

APA’s largest sources of Scope 3 emissions are purchased goods and services (including capital goods), fuel- and energy-related activities, use of sold products and investments.

For a complete breakdown of APA’s climate change data refer to our [FY23 Climate Data Book](#).

Emissions in this category have trended up since FY20 due to APA’s increased spending on major project investment. Operating (purchased goods and services) and capital (capital goods) expenditure can be captured together and are difficult to segregate. As a result of this, we can take the approach of combining emissions associated with spend of both capital goods and purchased goods and services in Category 1.

Emissions from fuel- and energy-related activities (Category 3) decreased from FY20 due to a realignment of emissions from assets APA owns but does not operate into investments (Category 15). Emissions from the use of sold products (Category 11) decreased, principally due to gas sale contracts expiring.

Breakdown of APA’s FY23 Scope 3 emissions (gross) by category



40.0%	(1)	Purchased goods and services (including capital goods)
25.2%	(3)	Fuel- and energy-related activities
0.1%	(5)	Waste
0.7%	(6)	Business travel
0.3%	(7)	Employee commuting
6.4%	(11)	Use of sold products
27.2%	(15)	Investments

Development of Scope 3 emissions reduction pathways

APA is on track to meet our 2022 action of finalising a Scope 3 emissions goal before, or in conjunction with, our next Climate Transition Plan in 2025. In FY23, we made progress by further developing our Scope 3 emissions reduction strategy and identifying three focus areas.

(1) Upstream – core

Core business activities such as procurement of goods and services and business travel make up about 40%¹ of our Scope 3 emissions.

As part of our approach to tackling these core operational emissions, we committed to fully offset all business travel. As a result, we delivered a net emissions reduction of 5,646 t CO₂-e by surrendering an equivalent volume of ACCUs. In addition, we engaged a leading procurement consultant to identify priority focus areas for our Category 1 purchased goods and services (including capital goods) emissions.

(2) Upstream fuel and energy emissions

Upstream emissions from fuel and energy consumption make up about 25%² of APA's Scope 3 emissions. Our primary opportunity to reduce emissions from this focus area is to align with our Scope 1 and Scope 2 initiatives to increase energy and resource efficiency and limit our consumption of emissions-intensive inputs. For example, by reducing the use of fuel gas in our compressors, we can reduce our Scope 1 gas infrastructure emissions as well as upstream Scope 3 emissions associated with gas production.

(3) Downstream emissions

Downstream emissions associated with emissions from products we sell and owned but not operated assets make up about 34%³ of APA's Scope 3 emissions. Our priority action for downstream emissions is to engage with the operators of significant assets that we own but do not operate to implement emissions reduction actions. We have made progress on reducing emissions in this category through the implementation of the Gruyere Hybrid Energy Microgrid (see case study).

Scope 3 emissions focus areas and reduction opportunities

 Upstream <i>(Core corporate activities)</i>	 Upstream <i>(Energy activities)</i>	 Downstream
Operational change: <ul style="list-style-type: none"> • Procurement decarbonisation strategy • Business travel emissions • Reducing waste to landfill • Employee commuting 	<ul style="list-style-type: none"> • Reductions in operational emissions 	<ul style="list-style-type: none"> • Engage with customers and operators of owned assets • Assets APA operates but does not have operational control
Initial focus on quick wins	Align with Scope 1 and Scope 2 reduction opportunities	Targeted engagement of customers and operators of owned assets

End user emissions from transported product

In accordance with the GHG Protocol Scope 3 Accounting and Reporting Standard category boundaries, emissions associated with natural gas products we transport but do not sell to the end user are not an APA Scope 3 emission. However, we are committed to playing our part in contributing to the decarbonisation of the gas value chain in Australia.

In our 2022 Climate Transition Plan we committed to continue to disclose estimates of these end user emissions.

In FY23, our end user emissions were 62.3 Mt CO₂-e. The reduction in emissions relative to FY21 is due to lower volumes of gas delivered.

For a complete breakdown of APA's climate change data refer to our [FY23 Climate Data Book](#).

¹ Based on FY23 data.

² Based on FY23 data.

³ Based on FY23 data.

CASE STUDY

Gruyere Hybrid Energy Microgrid: Supporting our customers to decarbonise

In FY23 APA commissioned our first-ever hybrid energy microgrid, supplying the remote Gruyere Gold Mine in Western Australia. The project included an expansion of our existing gas-fired generation, along with installation of a 13 MW solar farm backed up by a 4.4 MW/4.4 MWh battery energy storage system. The microgrid employs a hybrid control system that combines cloud and weather forecasting, battery control and the existing reciprocating engine control systems. This allows the microgrid to optimise efficiency and maximise the use of renewable generation, while maintaining energy supply reliability for the mine site operations. As a result, we have increased our total generation and storage capacity at Gruyere from 47 MW to 64 MW and is expected to deliver an overall reduction in emissions intensity for our customer. We expect the overall carbon intensity to reduce by 10%.

Since APA owns but does not operate the hybrid microgrid, the site's emissions are reported under our Scope 3 emissions. Refer to APA's [FY23 Climate Data Book](#) for further information.

Investing in future fuels through our Pathfinder Program

We established APA's Pathfinder Program in FY21 to understand what is required to support clean molecules in existing and new infrastructure. In FY23, we successfully completed a technical feasibility study under the Program for converting the Parmelia Pipeline (PGP) to 100% hydrogen (see case study).

We also conducted initial assessments using our Pipeline Screening Tool, which indicated a high likelihood that around half of APA's natural gas pipeline assets could be used for hydrogen transportation in 100% pure or blended form, with no, or small, changes to their current operating profile. The remainder of APA's pipelines – which consist largely of high strength steel operating at higher pressure – require further research and materials testing to determine if any changes in operating pressure are needed to maintain pipeline integrity while transporting hydrogen.

Pathfinder continues to investigate other hydrogen and carbon capture and storage project opportunities where APA can apply market-leading energy infrastructure expertise and experience to large-scale projects.

Responding to Safeguard Mechanism reforms

APA supports the recently implemented reforms to the Safeguard Mechanism, which align with our existing Climate Transition Plan commitments. The reformed Safeguard Mechanism sets out an emissions reduction trajectory for industrial facilities that is broadly comparable with our gas infrastructure to 2030 target and our goal to reach net zero operational emissions by 2050.

APA's South West Queensland Pipeline (SWQP) and the Goldfields Gas Pipeline (GGP) are covered facilities under the Safeguard Mechanism and are subject to declining emissions intensity baselines from FY24 onwards. In FY23, we began preparing these assets for the reforms, including steps to ensure baseline calculations are robust and accurately capture the impacts of potential abatement initiatives.

Consistent with our Climate Transition Plan, and where it is reasonable to do so, APA is prioritising emissions avoidance and reduction to meet Safeguard Mechanism baselines. Options for compressor electrification on the GGP are limited due to the remoteness of its compressors and will probably require greater use of ACCUs or Safeguard Mechanism Credits. However, there are emissions mitigation opportunities for the SWQP and we have begun feasibility studies for electrifying the Wallumbilla Compressor Station.

CASE STUDY

Working towards converting the Parmelia Pipeline to 100% hydrogen

In May 2023, our landmark Parmelia Gas Pipeline (PGP) conversion project in Western Australia confirmed, via pressurised hydrogen laboratory testing, the technical feasibility of converting a 43 kilometre section of the PGP to carry 100% hydrogen.

The testing results indicate it is technically feasible, safe and efficient to run the 43 kilometre section of the pipeline at current operating pressure using hydrogen.

The project will now consider preparing the section of pipeline for hydrogen service, and will include detailed safety studies and conversion plans, while continuing to investigate potential supply and offtake opportunities. Supporting the PGP conversion project is a Memorandum of Understanding between APA and Wesfarmers Chemicals, Energy and Fertilisers (WesCEF), signed in May 2022. This commits us to undertake a pre-feasibility study to assess the viability of producing and transporting green hydrogen via the PGP to WesCEF's production facilities in Kwinana.

Enhancing our greenhouse gas emissions data

For the FY23 reporting period, we published a standalone [FY23 Climate Data Book](#) and [FY23 Greenhouse Gas Emissions and Energy Calculation Methodology](#). This is the first time that APA has published these documents. This includes a range of additional disclosures consistent with *section 10 (Monitoring and Metrics)* of our [Climate Transition Plan](#). The Methodology provides the basis for how we compile our emissions inventories.

Specific to Scope 3 emissions, in FY23, we:

- developed emissions inventories for FY21–FY23 and obtained limited assurance on our Scope 3 and end user emissions over these reporting periods
- revised methods across several categories, re-categorised emissions from owned assets and revamped our data templates.¹

In FY24 APA will start our Net Zero Emissions Data and Reporting Project. This project will deliver a single source of truth emissions data and reporting platform with automated data flows for Scope 1, Scope 2 and Scope 3 and end user emissions. It will also support APA's ability to measure, monitor and analyse our emissions activity on a regular basis as well as forecasting future emissions against our commitments.

Our internal carbon abatement price

In FY23, APA implemented its internal carbon abatement price as part of our efforts to integrate the assessment of climate-related considerations in business decision making.

The internal carbon abatement price which is updated six-monthly is set at \$88/ t CO₂-e for the FY24 period. This increases to \$105 t CO₂-e in 2030. It is based on a 10-year rolling average (five years historical and five years forward-looking) which combines the unit cost for APA's existing carbon offset contracts and historical and forecast nature-based ACCU prices. A 100% premium is then applied to determine the internal carbon abatement price. This is to ensure we are appropriately incentivised to avoid and reduce our emissions resorting to offsets only when reasonable to do so.

The internal carbon abatement price is applied to climate-related 'avoid' and 'reduce' projects and activities and stay-in-business projects and initiatives. For major new greenfield investments or merger and acquisition activities we determine a case-specific carbon price and apply this on a sensitivity basis. The specific sensitivity analysis is determined on a case-by-case basis to suit the investment sector being considered.

APA's Net Zero and Climate Program Design and Embed phase status

Design phase

The Design phase of APA's Net Zero and Climate Program was completed in FY23. This phase focused on the following areas:

- targets
- Climate Transition Plan
- critical controls and decision-making
- executive remuneration.

Embedding and transitioning the Program

The Embed phase of the Program is planned to complete in FY24. In line with the Climate Transition Plan, the Embed phase of the Net Zero and Climate Program focuses on:

- embedding the processes, systems and practices defined during the Design phase into business-as-usual (BAU) practices
- ensuring operational roles and responsibilities associated with achieving our net zero targets are defined and understood
- establishing industry standard key performance indicators (KPIs) and metrics to support internal and external measurement and reporting
- supporting development of an organisational culture that enables APA to achieve our net zero objectives.

APA internal carbon abatement price

\$88/t CO₂-e in FY24

Increasing to

\$105/t CO₂-e in FY30

¹ We revised methods for business travel, waste, use of sold product and also end user emissions. We have realigned emissions from owned assets from Category 3 (fuel- and energy-related activities) to Category 15 (investments).

Risk management

IN FY23, WE:

Established a Climate Change
RISK GUIDANCE CARD

Established
**CLIMATE SPECIFIC
RISK MANAGEMENT
REQUIREMENTS**

within our Climate Change Standard

Image: Diamantina Power Station

APA's risk management framework promotes cohesive and accountable decision making on climate-related risks.

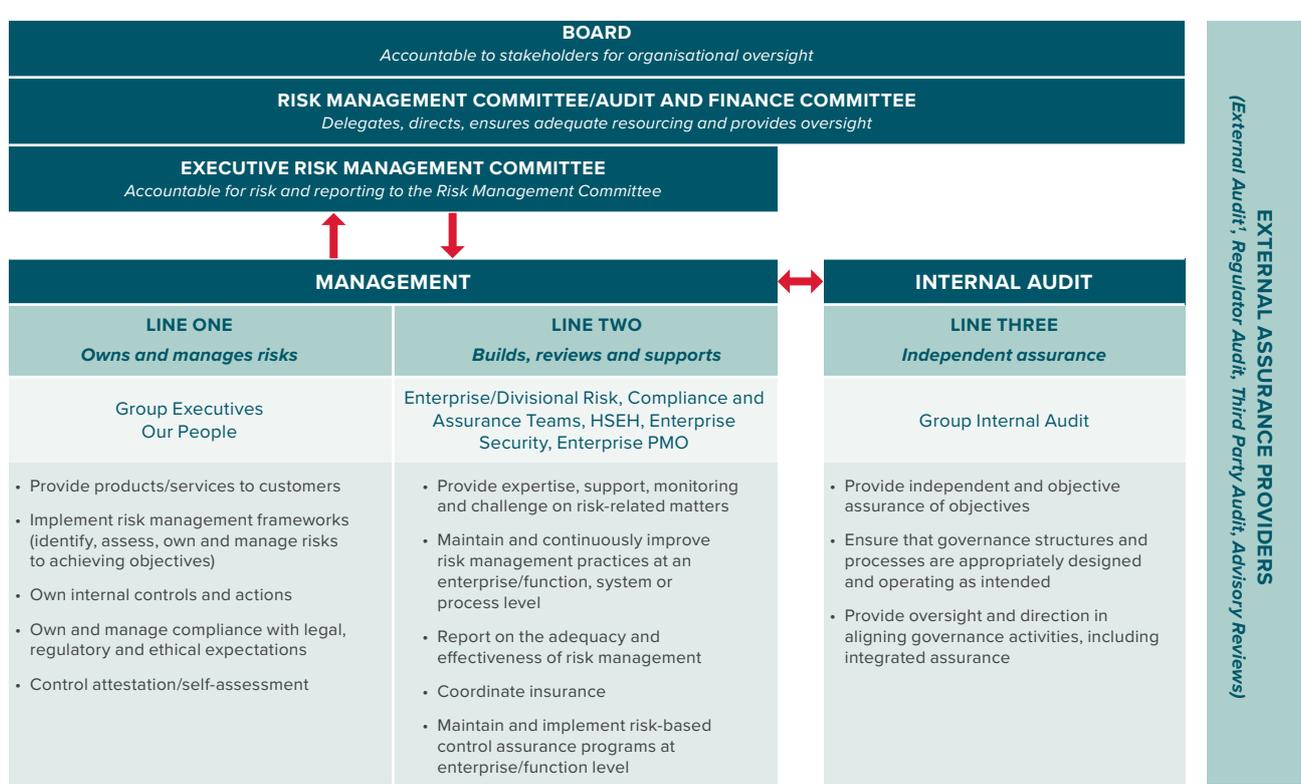
Climate-related risks and the APA risk management framework

APA identifies, manages, escalates and reports on climate-related risks as part of our overall risk management framework.

The APA risk management framework adopts a 'Three Lines' model for managing risks and controls to promote the behaviours and decision making that underpin an appropriate and cohesive risk culture (depicted below).

In the first line, every employee is accountable for day-to-day risk management and decision making within approved risk appetite guidelines. In lines two and three, APA's Executive Leadership Team, the Board's Risk Management Committee and the relevant business divisions have oversight of and review material risks regularly, with the support of internal and external experts.

APA corporate risk management governance framework



Key: ↑ Accountability reporting ↓ Delegation, direction, resources, oversight ↔ Alignment, communication, coordination, collaboration

1 External Auditors have not provided assurance over the risk management framework in FY23.

Processes for identifying and assessing climate-related risks

In line with APA's risk management framework, we assess climate-related risks at a Group-wide, divisional, asset and project level. Risk assessments are informed by scenario analysis, including our recent asset resilience analysis and portfolio physical climate risk assessment. Refer to the *Our strategy* section for further information.

Climate-related risks are categorised under transition risks (market, technology, policy and legal, and reputational risks) and physical risks (acute and chronic) and mapped to our overall corporate risk categories (strategic, operational, compliance and financial). In line with TCFD recommendations, we consider risks across three time horizons: short-term (impacts expected within next three years); medium-term (impacts expected in four to 10 years); and long-term. The short-term horizon corresponds mainly to risks and opportunities impacting APA's existing operations and active projects; the medium-term horizon mainly impacts on project investment decisions and five to 10 year strategic target-setting; and the long-term horizon aligns with the formulation of our broader business strategy and planning for energy transition and technology trends.

When undertaking risk assessments, we assign ratings based on APA's Enterprise Risk Matrix of likelihood and impact. Likelihood ratings are assigned on a five-point scale (from rare to frequent), with guidelines based on frequency of occurrence (for chronic, recurrent events like extreme temperature days) or probability (for single, acute events, e.g. a severe cyclone). Impacts are also rated on a five-point scale (from minimal to catastrophic), taking into account the expected consequences for health and safety, environment, heritage and social outcomes; operational capability; our people; regulatory compliance; reputation and customer relations; and financial impact.

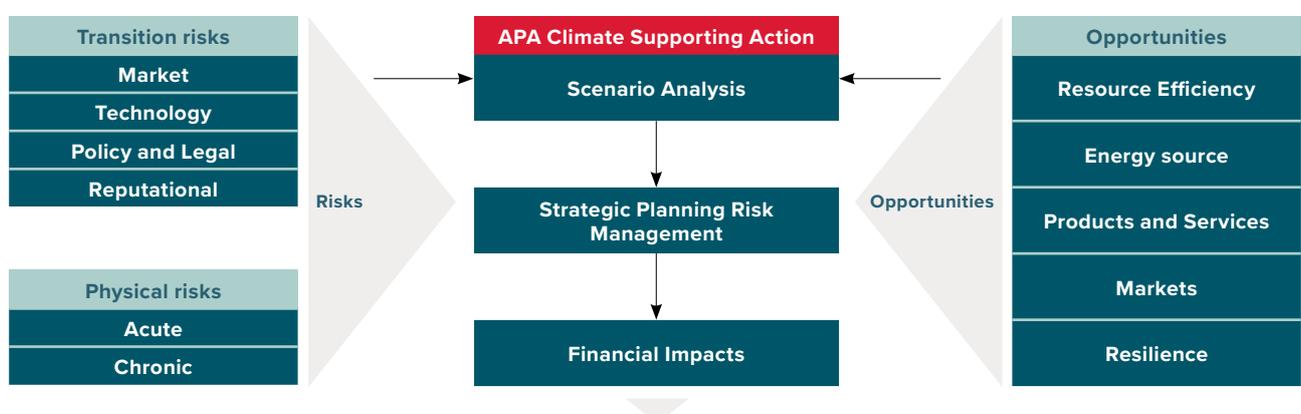
In FY23, we further strengthened our approach to risk identification and assessment with the introduction of a climate-related risk guidance card. The guidance card supports our business leaders, asset managers and project managers to appropriately identify and evaluate climate-related risks as part of their day-to-day risk management functions. It expands on APA's existing 5 x 5 risk matrix to include climate-related specific guidance on how to rate consequence and likelihood for climate-related risk. In addition, we recently commissioned an independent review of our climate-related risk management processes relative to requirements detailed in our Climate Change Standard.

Processes for managing climate-related risks

Climate-related risks are managed in accordance with APA's risk management framework. Risks are assigned an inherent rating based on their likelihood and impact in the absence of controls, and a residual rating once adjusted for controls. Where current controls are not able to manage the residual risk rating to the acceptable target levels, risk treatment options are to be applied. Despite implementing actions to manage a risk to target levels, cases will arise where the residual risk rating cannot be reduced further by actions over a period of time.

Where the risk is reported to the Risk Management Committee (RMC) the planned residual level should be identified and the Group Executive discusses and agrees/accepts the risk. Business decision making on risk acceptance is governed by APA's Risk Appetite Statement, which is reviewed and approved annually by the Board.

APA's climate-related risk approach



Examples of Financial Impacts	Transition Risk	Financial Drivers and Potential/Future Climate Change Impacts
Revenue	Market and technology shifts	Consumer and market demand (e.g. consumers demand shifting to greener alternatives)
Capex	Changing policy and legal requirements Increasing reputational pressure	Property, plant or equipment related costs (e.g. emission reduction technologies)
Operating expenses	Changing policy and legal requirements	Regulatory and compliance costs (e.g. emissions monitoring, carbon pricing)



Image: Shane (Manager Operations & Maintenance), Rachel (Internal Communications Manager) and Jessica (GM Internal Audit) at Dandenong LNG Facility

Governance



IN FY23, WE:

Approved APA's
**CLIMATE
TRANSITION
PLAN**

Revised executive short-term
incentives to include a
CLIMATE-RELATED KPI

Approved APA's
**NEW 2030
METHANE TARGET**

Image: Dandenong LNG Facility

FEC-7

APA's Board and Executive Leadership Team are committed to pursuing the targets, goals and commitments in APA's Climate Transition Plan in accordance with the highest standards of corporate governance, including transparency and accountability. We believe robust corporate governance policies and practices enable APA to create long-term value for securityholders and meet the expectations of other stakeholders.

Our Board's oversight of climate-related risks and opportunities

Board FY23 focus

The APA Board and its relevant Committees regularly consider climate-related issues and opportunities through business planning and strategy reviews, investment decisions, policy-setting and monitoring progress against commitments.

Key Board actions on climate-related matters in FY23 included:

- redefining the role and responsibilities of the Safety and Sustainability Committee (SSC) to oversee APA's sustainability-related matters, including risks related to climate change
- approving APA's Climate Transition Plan
- approving the review of APA's Climate Change Policy
- approving revisions of executive short-term incentives to include a climate-related KPI (People and Remuneration Committee)
- approving APA's 2030 methane target
- reviewing quarterly climate-related updates including information about climate-related risks, opportunities and progress on APA's Climate Transition Plan commitments.

Board skills and diversity

APA's Board determines and periodically reviews the mix of skills, experience and backgrounds required to effectively govern APA's business while considering the expertise and diversity of existing Directors. When appointing a new Director, the Board considers candidates who will balance and complement those qualities and address any potential skills gaps required given APA's strategic direction.

The skills and experience of our Directors in respect to climate and sustainability matters positions APA well to actively participate in and support Australia's energy transition. Four of our seven Directors (in FY23) have direct skills and experience related to the energy transition and climate-related matters. The Directors also recognise they must continue to learn about and assess relevant climate-related matters and risks as they evolve. The Board's collective knowledge is supplemented by management briefings and internal and external subject matter experts on topics such as climate, the energy transition and sustainability.

The Board skills matrix in APA's [Corporate Governance Statement 2023](#) includes a full breakdown of Directors' skills and experience in areas of strategic importance to APA.

Board climate-related skills matrix

Skills	Strength level
Energy transition and climate	
Experience in and knowledge of decarbonisation in the energy sector in connection with climate-related risks, strategies and policies, including electrification and energy storage, renewable energy generation, hydrogen, emerging technologies and policy and investment frameworks.	
Safety and sustainability	
Understanding of workplace health, safety and wellbeing, climate change and other sustainability related issues, risks and strategies, including policy frameworks, operational compliance and governance.	

Our corporate governance framework

The APA Board is responsible for reviewing and considering the potential impacts of sustainability-related risks, including climate change, across our organisation. Our risk-based governance framework enables critical climate-related risks and opportunities to be escalated through the Executive Leadership Team or (with the support of our Board Committees) to the Board.

Our Directors engage with our securityholders to provide awareness of APA's climate-related risks and opportunities, and to enable feedback on our climate change approach.

They use a range of formal and informal channels, including our annual general meeting (AGM) and routine engagements with major investors. In FY23, we conducted 19¹ investor engagements which included discussion of climate-related matters, including engagement on our Climate Transition Plan.

To assist with its responsibilities, the Board has established five standing committees, and approved their charters. The Board recently updated APA's committee structure to include a Safety and Sustainability Committee (SSC). The specific responsibilities of the Board and each standing committee are detailed in APA's FY23 Corporate Governance Statement.

Climate-related governance structure



¹ Does not include proxy advisor engagements during the period.

APA Board Committees and climate-related actions in FY23

Role	Key FY23 climate-related oversight topics
APA Group Board	
The Board is accountable to our securityholders for the proper management of APA's business and affairs	<p>Oversaw and monitored APA's progress against the commitments detailed in our Climate Transition Plan, supported by the SSC</p> <p>Approved APA's new 2030 methane target</p>
Safety and Sustainability Committee	
<p>Assists the Board to oversee safety and sustainability matters, including with respect to the health and safety of APA's people, contractors and the public, and environment and cultural heritage priorities</p> <p>Meets quarterly with additional out-of-cycle meetings as required</p> <p>Climate change is a standing agenda item</p>	<p>Monitored APA's identification of sustainability opportunities and strategies for the business</p> <p>Reviewed APA's environmental performance and greenhouse gas emission inventory and tracking performance indicator trends</p> <p>Oversaw the preparation of APA's sustainability reporting (including assurance activities and processes for verification of the integrity of that reporting)</p> <p>Reviewed quarterly climate-related updates including information about:</p> <ul style="list-style-type: none"> • performance against targets and goals • emission reduction technologies • progress on Climate Transition Plan commitments • climate-related emerging issues including policy developments • approaches to emissions measurement (particularly methane) • investor engagement • management governance • spend of the net zero emissions reduction initiatives and Scope 3 emissions. <p>Engaged with external experts in a presentation on Scope 3 emissions including setting of boundaries</p> <p>Set APA's management action items (matters arising) relating to methane, methane measurement, and re-baselining of emissions inventories</p> <p>Approved updates to APA's re-baselining principles relating to updated base-year emissions inventories</p> <p>Recommended that the Board approve APA's new 2030 methane target</p>
Audit and Finance Committee	
Assists the Board to oversee APA's corporate reporting and internal controls, including monitoring the effectiveness, performance, independence and objectivity of the internal and external auditors	<p>Oversaw the verification and assurance process of the climate-related matters in the Climate Transition Plan and Annual Report</p> <p>Approved third party pre-assurance engagement on Scope 3 emissions and assurance covering disclosure in the APA FY23 Climate Data Book</p>
Risk Management Committee	
Assists the Board to monitor, oversee and assess the implementation and effectiveness of APA's risk management and compliance policies and frameworks, risk appetite, strategies to manage material risks and the effectiveness, resourcing and performance of APA's Risk Management function	<p>Regularly monitored the performance of the business against APA's Risk Appetite Statement</p> <p>Reviewed and recommended to the Board updates to reflect APA's refreshed strategy and climate goals</p> <p>Reviewed and approved APA's Risk Management policy which sets out the principle, objectives and responsibilities for risk management, including climate-related risks, and articulates the key elements of the Risk Management System aligned to the international risk management standard ISO 31000</p>
People and Remuneration Committee	
Assists the Board to fulfil its responsibility to oversee development of APA's people and remuneration strategy and frameworks and makes recommendations to the Board on people and remuneration matters	Approved inclusion of climate-related KPIs to align management's incentives with APA's broader climate goals and targets

Executive remuneration linked to climate-related performance

During FY23, the APA Board approved the introduction of a climate KPI to APA's executive remuneration framework. For all relevant ELT, at least 10% of the FY23 Short-Term Incentive (STI) was determined based on APA's performance against priorities aligned with implementing APA's Climate Transition Plan. Refer to APA's *FY23 Remuneration Report* contained in APA's *Annual Report 2023* for further information on the STI.

Similarly, for the FY24 STI all ELT will have at least 10% of their STI outcome determined based on achievement of Climate Transition Plan priorities.

Management's role in climate-related governance

Our sustainability strategies take account of both opportunities and risks, with a view to building long-term competitive advantage and resilience for APA. We have established dedicated management committees to help oversee and manage APA's sustainability (including climate-related) risks and opportunities.

In FY23, our executive management's role in assessing and managing climate-related risks and opportunities involved quarterly climate-related updates to our SSC and Board that included:

- information about performance against our targets and goals
- progress against commitments in our Climate Transition Plan
- emerging issues, including policy developments and approaches to emissions measurement (particularly methane), investor engagement, management governance and Scope 3 emissions.

Our Sustainability Management Committee (SMC):

assists the Board with overseeing the continued evolution, implementation and performance against the Climate Transition Plan and climate-related matters.

Our Investment Committee: when presenting investment decisions to the Board, considers the commitments in our Climate Transition Plan.

Governance of APA's climate strategy

APA's Sustainability Team stewards our approach and advises on integrating climate change objectives into APA's business strategy, decision making and business processes. The Team is also responsible for APA climate policies, frameworks and standards; building organisational capability related to climate change; informing management of climate-related issues; and change and communication management.

The Sustainability Team is one of the driving forces in APA for achieving our climate-related strategic objectives. As such, it is supported by the Board and executive management and relies on the buy-in and participation of multiple divisions.

FY23: New governance structures established

Key management structures were established in FY23 to strengthen governance of our delivery of the Climate Transition Plan:

- Portfolio Emissions Management Group (PEMG)
- Emissions Reduction Working Group (ERWG).¹

These support our Climate Transition Plan objectives by:

- ensuring commitments are executed
- ensuring appropriate leadership engagement and commitment to delivery
- leveraging existing governance frameworks that support existing project and operational activities
- supporting appropriate escalation of risks, issues and decisions.

¹ The Emissions Data Governance Group (EDGG) was established in FY22.

Business process controls

The Climate Transition Plan highlighted several key business processes as priority areas for the development or update of critical controls to manage climate-related risk.

During FY23, APA delivered 25 critical control artefacts, processes and guidance materials to support the necessary uplift in these areas.

Transparency and assurance

APA is committed to providing securityholders and other external stakeholders with timely, credible and transparent reporting. Australia's energy transition is a dynamic area so we are continually enhancing our reporting to better meet stakeholder expectations.

In our Climate Transition Plan, we committed to providing an annual performance report on progress against our targets, goals and commitments. The FY23 information is contained in this inaugural Climate Report. We intend to publish a Climate Report each year as a regular part of APA's business reporting suite.

During the reporting year, we expanded our reporting suite by publishing the APA [FY23 Climate Data Book](#), which provides comprehensive climate-related data and other disclosures that are the basis of our reporting. We also published a new document, the APA [FY23 Greenhouse Gas Emissions and Energy Calculation Methodology](#), so stakeholders can see the methodology we apply when calculating our data.

This Climate Report has been prepared internally by relevant subject matter experts, verified by relevant APA executives and senior managers, and approved by the APA Board prior to disclosure. For our compliance-related emissions data, we undertake annual reasonable assurance of all emissions under our operational control. For voluntary emissions data, we undertake limited assurance.

Public policy and advocacy

Australia's energy transition is an industry-wide challenge, and wherever practical, APA shares information with our industry peers, relevant government agencies and industry bodies. Being transparent and collaborative supports effective planning, policy certainty and well-designed market-based mechanisms that provide for the most orderly, efficient, and least-cost, transition in support of the Paris Agreement.

We advocate for public policy positions that are consistent with those in our Climate Change Policy and Climate Transition Plan, both as an individual business and as a member of industry associations.

In FY23, APA's advocacy planning and activity addressed:

- Safeguard Mechanism reforms
- reforms to the energy regulatory framework
- rule change supporting cost recovery for decarbonisation investment
- inclusion of emissions reduction targets in the National Gas and Electricity Objectives
- engagement with the new National Energy Transformation Partnership of State and Federal energy ministers
- regular engagement with governments, regulators and the Australian Energy Market Commission.

Membership of associations

APA participates in business and industry associations where there is an opportunity to:

- provide business leadership on national issues, and insights into (and advocacy for) public policy processes
- contribute to enhancing industry standards through exchanging best practice learning and development.

For a full list of APA memberships, see the APA [Annual Report 2023](#).

We review our industry memberships annually against APA's membership criteria. These cover a range of elements, including climate decarbonisation, and we review a membership where it no longer meets these criteria. Decisions about joining a new association are governed by APA's Sustainability and Corporate Affairs division.

APA's climate-related membership of associations and signatories includes:

- FY23 associations:
 - Australian Climate Leaders Coalition
 - Hydrogen Council
 - Materials and Embodied Carbon Leaders' Alliance.
- FY23 signatories:
 - United Nations Global Compact
 - Methane Guiding Principles.

Taskforce on Climate-related Financial Disclosures (TCFD)

TCFD index table

TCFD Guidance for All Sectors			
TCFD recommended disclosure	TCFD disclosure guidance	APA response / reference	
Governance	Disclose the organization's governance around climate-related risks and opportunities.	a. Describe the board's oversight of climate-related risks and opportunities.	<i>Governance section, Our Board's oversight of climate-related risks and opportunities, page 49–51</i>
		b. Describe management's role in assessing and managing climate-related risks and opportunities.	<i>Governance section, Management's role in climate-related governance, page 51</i>
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	<i>Our strategy section, Reflecting climate-related risks and opportunities in our business strategy, page 22–26</i>
		b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	<i>Our strategy section, Reflecting climate-related risks and opportunities in our business strategy, page 22</i> <i>Risk management section, Climate-related risks and the APA risk management framework, page 45–47</i>
		c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<i>Our strategy section, APA's Climate Transition Plan, page 12</i> <i>Our strategy section, Reflecting climate-related risks and opportunities in our business strategy, page 22</i>
Risk Management	Disclose how the organization identifies, assesses, and manages climate-related risks.	a. Describe the organization's processes for identifying and assessing climate-related risks.	<i>Risk management section, Processes for identifying and assessing climate-related risks, page 46</i>
		b. Describe the organization's processes for managing climate-related risks.	<i>Risk management section, Climate-related risks and the APA risk management framework, page 45–47</i>
		c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	<i>Risk management section, Processes for identifying and assessing climate-related risks, page 46</i>
Metrics and Targets	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	<i>Metric and targets section, Action on our Climate Transition Plan, page 31</i>
		b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	<i>Metric and targets section, page 31–43</i> <i>Additional information section, page 56–57</i>
		c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	<i>Metric and targets section, page 31–43</i> <i>Additional information section, page 55–57</i>

Refer to APA's [FY23 Climate Data Book](#) for a full index of APA's response / reference to TCFD disclosure, including TCFD supplementary guidance for non-financial groups.

Additional information

Expanded climate-related performance information

In our Climate Transition Plan, we established measurable and comparable key climate metrics to monitor and report against (refer to the *Metrics and targets* section for further information).

Where there no targets in the Plan, we have chosen to further increase transparency through additional reporting on key metrics, as contained in this section. This provides our Board, management and external stakeholders with a fuller picture of APA's climate-related performance.

FY23 progress and performance against additional key climate metrics

Key climate metric	Information source
GHG emissions and energy	
Absolute Scope 1, Scope 2 and Scope 3 and end user emissions:	Refer to APA's FY23 Climate Data Book
• Scope 1	
• Scope 2	
• Scope 3	
• Delivered gas end user emissions	
Power generation emissions intensity	
Energy production and consumption	
Scope 1 emissions covered under emissions-limiting regulations	
Climate-related risks and opportunities	
Percentage of revenue from assets that support the transition to a low carbon economy	To be disclosed in a future reporting period
Percentage of revenue from activities vulnerable to transition risk	
Capital and operating expenditure on climate-related risks and opportunities	Refer to <i>Our strategy</i> section, page 16
Carbon prices	
Internal carbon price	
Internal carbon abatement price	Refer to <i>Metrics and targets</i> section, page 43
Offsets	
Purchased Surrendered	Refer to <i>Our strategy</i> section, page 19 and APA's FY23 Climate Data Book , 'Offsets' tab
Climate-linked executive remuneration	
Percentage of executive remuneration linked to climate-related objectives	Refer to <i>Governance</i> section, page 48

Greenhouse gas emissions data summary

Operational GHG emissions by asset class and total, including performance against targets and goals¹

Gas infrastructure	UoM	FY23	FY22	FY21
Scope 1	t CO ₂ -e	598,218	617,205	558,744
Scope 2 (market method)	t CO ₂ -e	–	10,636	8,660
Total Scope 1 and Scope 2 (market method) (gross)	t CO₂-e	598,218	627,840	567,404
Total Scope 1 and Scope 2 (adjusted) (gross)²	t CO₂-e	531,982	553,670	552,257
Carbon offsets surrendered	t CO ₂ -e	16,763	19,537	
Total Scope 1 and Scope 2 (net)	t CO₂-e	515,219	534,133	
Gas infrastructure emissions change compared to base year (net)	t CO₂-e	(37,038)	(18,124)	
	%	-6.7%	-3.3%	
Power generation infrastructure	UoM	FY23	FY22	FY21
Scope 1	t CO ₂ -e	781,029	875,741	871,083
Scope 2 (market method)	t CO ₂ -e	–	2,566	2,138
Total Scope 1 and Scope 2 (market method) (gross)	t CO₂-e	781,029	878,307	873,221
Power generation intensity	t CO ₂ -e / MWh	0.273	0.281	0.288
Power generation emissions intensity change compared to base year (gross)	t CO₂-e / MWh	(0.015)	(0.007)	
	%	-5.3%	-2.4%	
Electricity transmission infrastructure	UoM	FY23	FY22	FY21
Scope 1	t CO ₂ -e	91	31	152
Scope 2 (market method) – line loss ³	t CO ₂ -e	137,643	76,737	68,264
Scope 2 (market method) – grid electricity	t CO ₂ -e	–	2,755	2,729
Total Scope 1 and Scope 2 (market method including line losses) (gross)	t CO₂-e	137,733	79,523	71,145
Total Scope 1 and Scope 2 (market method excluding line losses) (gross)	t CO₂-e	91	2,786	2,881
Total Scope 1 and Scope 2 (adjusted including line losses) (gross)⁴	t CO₂-e	137,733	151,111	142,733
Total Scope 1 and Scope 2 (adjusted excluding line losses) (gross)⁴	t CO₂-e	91	4,076	4,172
Electricity transmission emissions (Scope 1 and Scope 2 (adjusted excluding line loss) change compared to base year (gross)	t CO₂-e	(4,081)	(96)	
	%	-98%	-2%	
Total	UoM	FY23	FY22	FY21
Scope 1	t CO ₂ -e	1,379,338	1,492,977	1,429,979
Scope 2 (market method) – line loss	t CO ₂ -e	137,643	76,737	68,264
Scope 2 (market method) – grid electricity	t CO ₂ -e	–	15,956	13,527
Total Scope 1 and Scope 2 (market method) (gross)	t CO₂-e	1,516,981	1,585,670	1,511,770
Total Scope 1 and Scope 2 (adjusted) (gross)⁵	t CO₂-e	1,450,745	1,583,087	1,568,211
Carbon offsets surrendered	t CO ₂ -e	16,763	19,537	
Total Scope 1 and Scope 2 (net)	t CO₂-e	1,433,982	1,563,550	

Operational Scope 1 GHG emissions by greenhouse gas split by asset class and total⁶

Total	UoM	FY23	FY22	FY21
Methane (CH ₄) (adjusted)	t	8,876	8,941	8,833

Scope 3 greenhouse gas emissions

Scope 3 GHG emissions by category	UoM	FY23	FY22	FY21	FY20
Upstream (gross)					
Category 1: Purchased goods and services (including capital goods)	t CO ₂ -e	325,956	280,898	171,425	137,726
Category 3: Fuel and energy related activities	t CO ₂ -e	205,675	215,237	214,642	418,351
Category 5: Waste	t CO ₂ -e	1,104	1,023	1,660	1,833
Category 6: Business travel	t CO ₂ -e	5,646	2,265	1,832	4,739
Category 7: Employee commuting	t CO ₂ -e	2,812	2,512	2,316	1,886
Downstream (gross)					
Category 11: Use of sold products	t CO ₂ -e	52,375	111,331	159,610	144,367
Category 15: Investments	t CO ₂ -e	221,716	240,205	220,186	
Total Upstream and Downstream (gross)	t CO₂-e	815,284	853,473	771,671	708,901
Carbon offsets surrendered – due to 100% business travel being offset	t CO ₂ -e	5,646			
Total Upstream and Downstream (net)	t CO₂-e	809,638			

End user greenhouse gas emissions

End User GHG emissions	UoM	FY23	FY22	FY21	FY20
End user emissions (upstream and downstream)	t CO ₂ -e	62,329,409	66,834,654	66,286,223	68,286,483

1 All calculations are based on Scope 2 market method, except when indicated otherwise.

2 Adjustments include re-baselining for NGER method change for natural gas storage fugitive emissions, Orbest divestment, historical reporting error associated with fuel gas at Moomba Compressor Station and NGER calculation change for gas distribution fugitive emissions.

3 Where there has been no voluntary surrender of LGCs, there will be minor differences in the Scope 2 emissions value calculated between the location-based and market-based methods. This is in part due to the residual mix factor being applied at a national level rather than on a state-by-state basis. Where this is the case i.e., there has been no voluntary surrender of LGCs, we assume the location-based method calculation value also represents the market-based method calculation value. APA has not surrendered LGCs for electricity transmission line losses in the reporting period.

4 Adjustments include re-baselining for Basslink acquisition.

5 Adjustments include re-baselining for NGER method change for natural gas storage fugitive emissions, Orbest divestment, historical reporting error associated with fuel gas at Moomba Compressor Station, NGER calculation change for gas distribution fugitive emissions and Basslink acquisition.

6 These values are not adjusted due to re-baselining activity and use the Global Warming Potentials (GWP) from the Intergovernmental Panel on Climate Change Assessment Report 5 based on a 100 year timeframe.

Glossary

Term	Definition
Abatement	Measures that companies take to prevent, reduce or eliminate sources of GHG emissions within their value chain.
Absolute emissions	For a particular reporting period total aggregate greenhouse gas emissions specific to a particular emission Scope or across different Scopes. Is not relative or comparative (see Emissions intensity).
Assets	An item of value owned or operated by APA e.g. transmission, generation or other.
Avoid	The avoidance of emissions through decisions APA makes when (1) investing in a new entity or asset or (2) designing new or when making major modifications to assets.
Baseline	A hypothetical scenario for what GHG emissions, removals or storage would have been in the absence of the GHG project or project activity.
Base year	A historic datum (a specific year or an average over multiple years) against which a company's emissions are tracked over time.
Base year emissions recalculation (re-baselining)	Recalculation of emissions in the base year to reflect a change in the structure of the company, or to reflect a change in the accounting methodology used. This ensures data consistency over time, i.e. comparisons of like with like over time.
Capex	Capital expenses. Money spent to buy or improve fixed assets.
Carbon offsets (Carbon credits, Offsets)	Broadly refers to a reduction in GHG emissions – or an increase in carbon storage (e.g. through land restoration or the planting of trees) – used to compensate for emissions that occur elsewhere.
Climate Transition Plan	APA's Climate Transition Plan updates, consolidates and transparently communicates APA's commitments and performance in managing climate change risks and opportunities, as the energy transition accelerates.
CO₂-e (carbon dioxide equivalent)	The universal unit of measurement to indicate the global warming potential (GWP) of each GHG, expressed in terms of the GWP of one unit of carbon dioxide (CO ₂). It is used to evaluate releasing (or avoiding releasing) different GHGs against a common basis.
Decarbonise, Decarbonisation	Removing or reducing the amount of carbon dioxide emitted into the atmosphere.
Emissions (GHG emissions)	Known as greenhouse gas (GHG) emissions. These are the aggregate anthropogenic carbon dioxide equivalent emissions of carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF ₆). All are expressed in carbon dioxide equivalent (CO ₂ -e).
Emissions intensity	For a particular reporting period, total aggregate greenhouse gas emissions per unit for some activity or output specific to a particular emission Scope or across different Scopes. For example, emissions per throughput of gas is an intensity measure.
Emissions scenario	A plausible future pathway of man-made emissions (e.g. greenhouse gases and other pollutants) that can affect climate. These pathways are based on a coherent and internally consistent set of assumptions about determining factors (such as demographic and socioeconomic development, technological change) and their key relationships.
End user emissions	End user emissions are emissions (upstream and downstream) that result from the end use consumption (combustion) of natural gas that APA transports through its wholly-or-partially-owned pipelines but does not take ownership of and therefore does not sell to the end user.
Energy transition	Energy transition means reducing reliance on greenhouse gas intensive sources of energy to decarbonise the economy and support the achievement of climate-related targets and goals.
Financial Stability Board (FSB)	International body that monitors and makes recommendations about the global financial system.
Flaring	The controlled combustion of gas that takes place during production and processing of natural gas.
Fugitives (Fugitive emissions)	The unintentional release of gas in connection with, or because of, the extraction, processing, storage or delivery of natural gas.
Future fuels	A wide range of carbon-neutral fuels produced using renewable or clean energy sources such as biogas and hydrogen.
FY	Financial Year (period between 1 July to 30 June).
GHG	See Greenhouse gas.

Term	Definition
Global warming potential (GWP)	Global warming potentials (GWPs) are values that allow direct comparison of the impact of different greenhouse gases in the atmosphere by comparing how much energy one tonne of a gas will absorb compared to one tonne of carbon dioxide.
Goal	An ambition to seek an outcome for which there is no current pathway(s), but for which efforts will be pursued towards addressing that challenge, subject to certain assumptions or conditions.
Greenhouse gas (GHG)	Gas that can trap heat when emitted within the atmosphere. The greenhouse gases included under the GHG Protocol are carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃).
Greenhouse Gas Protocol (GHG Protocol)	The Greenhouse Gas Protocol establishes comprehensive global standardised frameworks to measure and manage greenhouse gas emissions from private and public sector operations, value chains and mitigation actions.
Green hydrogen	Hydrogen produced using renewable energy ¹
Gross emissions	Total GHG emissions for a reporting period with no adjustment due to the application of offsets surrendered.
Hard-to-abate	Any sector for which the transition to net zero is not straightforward including due to the lack of commercially viable technology.
Internal Carbon Abatement Price	The Internal Carbon Abatement Price sets the threshold price for APA's preparedness to pay for abatement and alternative design solutions to avoid or reduce emissions.
Internal Carbon Price	The carbon price which APA Group determines as the rolling average market price for carbon. It is based on the Australian Carbon Credit Unit price.
Large-scale Generation Certificate (LGC)	A large-scale generation certificate (LGC) represents 1 MWh of electricity generated from an eligible renewable electricity source.
Marginal abatement cost	Net Present Value (NPV) divided by emissions reduced or avoided.
Methane Guiding Principles (MGPs)	The Methane Guiding Principles (MGPs) is a voluntary, international multi-stakeholder partnership between industry and non-industry organisations. It has a focus on priority areas for action along the natural gas supply chain, from production to the final consumer.
Mitigation	Refers to efforts to reduce or prevent emission of greenhouse gases. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behaviour.
Net emissions	Gross GHG emissions for a reporting period reduced by the number of carbon offsets surrendered.
Net zero	Achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere.
NGER, NGER Act	National Greenhouse and Energy Reporting Act 2007, and associated legislation/regulations.
NGERS	National Greenhouse and Energy Reporting Scheme.
Operational control	A company has operational control over an operation if [the company] or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation. This aligns with the definition of operational control provided in both the GHG Protocol and section 11 of the NGER Act.
Operational emissions	Scope 1 and Scope 2 emissions for assets under APA's operational control.
Organisational boundary	Relates to assets under APA's operational control.
Paris Agreement	In 2015, Parties to the United Nations Framework on Climate Change (UNFCCC) agreed in Paris to keep the global temperature rise this century well below 2.0°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. The agreement requires all Parties to put forward Nationally Determined Contributions. There is a global stocktake every five years to assess collective progress towards achieving the agreement and keep informed about further individual actions by Parties.
Permanence	Period for which carbon is stored.

¹ DCCEEW, Growing Australia's hydrogen industry, 2023

**Additional information
(continued)**

Term	Definition
Physical climate risk	Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise).
RCPs	Representative Concentration Pathways. Four independent pathways comprising sets of projections of radiative forcing that serve as inputs to climate modelling, pattern scaling and atmospheric chemistry modelling. These are based on the forcing of greenhouse gases and other forcing agents.
Re-baselining	See Base year emissions recalculation (re-baselining).
Reduce	Reducing greenhouse gas emissions through the way we operate our assets as well as modifications to plant and infrastructure.
Remote-grid	A power generation facility that is not connected to the National Electricity Market (NEM), the South West Interconnected System (SWIS), the North West Interconnected System (NWIS), the Darwin to Katherine Interconnected System (DKIS) or the Mount Isa-Cloncurry supply network (Mount Isa Network).
Safeguard Mechanism	Requires Australia's highest greenhouse gas emitting facilities to keep their emissions below an emissions limit (baseline). If a Safeguard facility exceeds their baseline, they must manage their excess emissions. Applies to facilities that emit more than 100,000 t CO ₂ -e of covered emissions in a financial year (the Safeguard threshold). The Safeguard Mechanism is administered through the NGERs.
Scenario	A plausible description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces (e.g. rate of technological change, prices) and relationships. Note that scenarios are neither predictions nor forecasts but are useful for providing a view of the implications of developments and actions.
Scope 1 emissions	Direct emissions that occur from sources owned or controlled by a company, e.g. combustion of natural gas within a compressor.
Scope 2 emissions	Indirect emissions not directly generated by the reporting organisation but used due to its operations, such as consumption of purchased electricity/fuel or electricity line loss.
Scope 3 emissions	All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.
SSPs	Shared Socio-Economic Pathways. Used alongside the Representative Concentration Pathways (RCPs) to analyse the feedback between climate change and socioeconomic factors, such as world population growth, economic development, and technological progress.
Target	An intended outcome in relation to which we have identified one or more pathways for delivery of that outcome, subject to certain assumptions or conditions.
TCFD	Taskforce on Climate-related Financial Disclosures. An initiative of the Financial Stability Board (FSB) to improve and increase reporting of climate-related financial information. TCFD is NOT mandatory.
t CO₂-e	Tonne (t) CO ₂ -e (carbon dioxide equivalent).
Transition risk	Risks related to the transition to a lower carbon economy. They can be grouped into four categories: policy and legal risk; technological risk; market risk (e.g. consumer preferences); and reputational risk.
Value chain emissions	Emissions from the upstream and downstream activities associated with the operations of the reporting company, including end user emissions.
ZDEV	Zero direct emission vehicles are vehicles which don't use petrol or diesel, have no tailpipe, and therefore do not directly emit greenhouse gas (GHG) emissions. There are two types of ZDEVs – battery electric vehicles (BEVs) and Hydrogen Fuel Cell Electric Vehicles (HCEVs).

Assurance statement



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Independent Limited Assurance Report to the APA Group Limited

Conclusion

We have undertaken a limited assurance engagement on APA Group Limited's ("APA") selected metrics (the "Subject Matter") detailed below, and as disclosed in APA's FY23 Climate Data Book, referenced on page 32 of APA's Climate Report 2023 for the periods covering 1 July 2022 to 30 June 2023 (FY23), 1 July 2021 to 30 June 2022 (FY22) and 1 July 2020 to 30 June 2021 (FY21).

FY23 metrics assured	Reporting criteria
Metrics disclosed in tab "GHG Emissions" of APA's FY23 Climate Data Book:	
Operational GHG emissions by asset class and total, including performance against targets and goals: Scope 1 (t CO ₂ -e) and Scope 2 (location method) (t CO ₂ -e)	NGER ¹
Operational GHG emissions by asset class and total, including performance against targets and goals: All other metrics	FY23 Greenhouse Gas Emissions and Energy Calculation Methodology
Operational scope 1 GHG emissions by greenhouse gas split by asset class and total	
Equity Share GHG emissions by asset class and total	
Scope 3 GHG emissions by category	
End User GHG emissions	
Metrics disclosed in tab "Energy" of APA's FY23 Climate Data Book:	
Energy consumption and production data	NGER ¹

FY22 metrics assured	Reporting criteria
Metrics disclosed in tab "GHG Emissions" of APA's FY23 Climate Data Book:	
Operational GHG emissions by asset class and total, including performance against targets and goals: Scope 1 and Scope 2 (adjusted due to rebaselining activities) (t CO ₂ -e) Emissions change compared to base year ² (Gross and Net) (t CO ₂ -e, %)	FY23 Greenhouse Gas Emissions and Energy Calculation Methodology
Scope 3 GHG emissions by category	
End User GHG emissions	

FY21 metrics assured	Reporting criteria
Metrics disclosed in tab "GHG Emissions" of APA's FY23 Climate Data Book:	
Operational GHG emissions by asset class and total, including performance against targets and goals: Scope 1 and Scope 2 GHG emissions (adjusted due to rebaselining activities) (t CO ₂ -e)	FY23 Greenhouse Gas Emissions and Energy Calculation Methodology
Scope 3 GHG emissions by category	
End User GHG emissions	

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that, the Subject Matter is not prepared, in all material respects, in accordance with Reporting Criteria.

¹ 'NGER' is defined as the National Greenhouse and Energy Reporting Act 2007 ('NGER Act'), the National Greenhouse and Energy Reporting Regulations 2008 ('NGER Regulations') and the National Greenhouse and Energy Reporting (Measurement) Determination 2008 ('NGER Determination') (collectively referred to as the 'NGER Legislation').

² Emissions change compared to FY21 base year.

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Basis for Conclusion

We conducted our limited assurance engagement in accordance with Australian Standard on Assurance Engagements ASAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information ("ASAE 3000"), issued by the Australian Auditing and Assurance Standards Board.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

APA Group Limited's Responsibilities

The Directors of APA are responsible for:

- ensuring that the Subject Matter is properly prepared in accordance with Reporting Criteria;
- confirming the measurement or evaluation of the underlying Subject Matter against the Reporting Criteria, including that all relevant matters are reflected in the Subject Matter; and
- designing, establishing and maintaining an effective system of internal control over its operations and financial reporting, including, without limitation, systems designed to assure achievement of its control objectives and its compliance with applicable laws and regulations.

Our Independence and Quality Management

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, and applied Auditing Standard ASQM 1 Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements in undertaking this assurance engagement.

Assurance Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion on APA's Subject Matter as evaluated against Reporting Criteria based on the procedures we have performed and the evidence we have obtained. ASAE 3000 requires that we plan and perform our procedures to obtain limited assurance about whether, anything has come to our attention that causes us to believe that the Subject Matter is not properly prepared, in all material respects, in accordance with Reporting Criteria.

A limited assurance engagement in accordance with ASAE 3000 involves identifying areas where a material misstatement of the Subject Matter is likely to arise, addressing the areas identified and considering the process used to prepare the Subject Matter. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion about whether the Subject Matter has been properly prepared, in all material respects, in accordance with Reporting Criteria.

Our procedures included:

- Inquiring with management and staff responsible for selected metrics to understand the compilation and review processes and reviewing underlying evidence on a sample basis, to corroborate that the target / indicator is prepared and reported in line with APA's policies, procedures and methodologies applicable to the Reporting Criteria;
- Applying analytical and other review procedures including assessing relationships between energy and emissions data and other financial and non-financial data;

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- Analysing and inspecting on a sample basis the key systems, processes and procedures relating to the collation, validation, presentation and approval process of the selected metrics within APA's FY23 Climate Data Book, as referenced in APA's Climate Report 2023.

Inherent Limitations

Because of the inherent limitations of an assurance engagement, together with the inherent limitations of any system of internal control there is an unavoidable risk that it is possible that fraud, error, or non-compliance with laws and regulations, where there has been concealment through collusion, forgery and other illegal acts may occur and not be detected, even though the engagement is properly planned and performed in accordance with Standards on Assurance Engagements.

Emissions quantification is subject to inherent uncertainty because incomplete scientific knowledge has been used to determine emissions factors and the values needed to combine emissions due to different gases.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data.

Other Information

The Directors are responsible for the other information. The other information comprises the information included in APA's FY23 Climate Data Book and APA's Climate Report 2023, but does not include the Subject Matter. Our responsibilities do not extend to other information, and we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Subject Matter or our knowledge obtained in the engagement, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude there is a material misstatement of this other information, we are required to report this fact. We have nothing to report in this regard.

Restricted use

The Reporting Criteria used for the assurance engagement was designed for the specific purpose of the Director's reporting on selected metrics in the APA's FY23 Climate Data Book, as referenced in APA's Climate Report 2023. As a result, the selected metrics may not be suitable for another purpose.

This report has been prepared for use by the Directors of APA for the purpose of providing assurance over selected metrics included in the APA's FY23 Climate Data Book, referenced in APA's Climate Report 2023. We disclaim any assumption of responsibility for any reliance on this report to any person other than the Directors of APA, or for any purpose other than that for which it was prepared.

Matters relating to electronic presentation of information

It is our understanding that APA may publish a copy of our report on their website. We do not accept responsibility for the electronic presentation of our report on the APA website. The security and controls over information on the website is not evaluated or addressed by the independent auditor. The examination of the controls over the electronic presentation of this Report on the APA website is beyond the scope of this engagement.


DELOITTE TOUCHE TOHMATSU



Chi Woo
Partner
Sydney, 22 September 2023

