

#### I FRONT COVER / PAPUA NEW GUINEA FRESH PRODUCE DEVELOPMENT PROJECT

#### REPORT CONTEXT

I GRI 2-1-2-5

This report provides an overview of Santos' sustainability and climate approach and performance for the calendar year 2023. The greenhouse gas emissions data is for the period 1 July 2022 to 30 June 2023.

This report has been prepared in accordance with the GRI Standards 2021 for the period 1 January 2023 to 31 December 2023. This report aligns with the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Ernst & Young (EY) have undertaken limited assurance of selected sustainability and climate data in this report for the year ended 31 December 2023. Detailed data tables, the GRI and TCFD disclosure indices, and EY's assurance statement can be found in Appendices 2, 3, 4, 5, 6 and 8 of this report.

Information and data provided within this report is predominantly presented on a gross operated basis, with the exception of financial information and certain climate-related information.

All dollar figures are expressed in US currency, Santos share, unless otherwise stated. Translation of non-USD amounts is per Note 1.4 Foreign Currency of the 2023 Financial Report.

Procurement, community investment and fines are presented using a 12 month average FX rate.

Tax data reported for the period 1 January 2022 to 31 December 2022 has been restated in this report in Appendix 4. Santos has increased the tax paid in 2022, as additional data was made available prior to lodgement in 2023.

Santos is working to improve the quality of its data and processes for capturing and reporting information. Due to the lag nature of incident reporting and subsequent verification, final rates may vary after the date of initial reporting. The 2022 and 2020 year TRIR results were adjusted due to subsequent verification and amendment of injuries. The 2019 TRIR results were adjusted due to an improvement in the granularity of hours worked information.

Santos is committed to ongoing, transparent reporting of business performance outcomes and data, and the continuous improvement of our public disclosures.

We recognise the importance of cohesive sustainability reporting and aligning with widely accepted reporting standards.

This report is part of Santos' publicly available reporting suite including the:

- 2023 Annual Report
- 2023 Corporate Governance Statement
- Annual Modern Slavery Statement.

Santos Limited (ABN 80 007 550 923) is the ultimate holding Company of all subsidiaries in the Santos group. All references to "us", "we", and "our" refers to Santos Limited and/or its subsidiaries. The Santos Foundation is a separate legal entity and not a subsidiary although Santos Limited Group is a contributor to it.

#### DISCLAIMER AND FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements that are subject to risk factors associated with the oil and gas, and carbon capture and storage industries. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and production results, gas commercialisation, development progress, operating results, engineering estimates, reserves and resource estimates, loss of market, industry competition, environmental risks, carbon emissions reduction and associated technology risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries, approvals, conduct of joint venture participants and contractual counterparties, cost estimates, reputational risk and social licence, stakeholder risk and activism.

The forward-looking information in this report is based on management's current expectations and reflects judgements, assumptions, estimates and other information available as at the date of this document and/or the date of Santos' planning processes.

There are inherent limitations with scenario analysis. Scenarios do not constitute definitive outcomes. Assumptions may or may not be, or prove to be, correct and may or may not eventuate, and scenarios may be impacted by factors other than assumptions made. Except as required by applicable regulations or by law, Santos does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Forward-looking statements speak only as of the date of this report or the date planning process assumptions were adopted, as relevant.

Our strategies and targets will adapt given the dynamic conditions in which we operate; it should not be assumed that any particular strategies, targets or implementation measures are inflexible or frozen in time. No representation or warranty, express or implied, is given as to the accuracy, completeness or correctness, likelihood of achievement or reasonableness of any forwardlooking information contained in this report. Forward-looking statements do not represent guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond Santos' control, and which may cause actual results to differ materially from those expressed in the statements contained in this report.



# **CONTENTS**

Overview	1
Message from the Chair of the Board	2
Message from the Chief Executive Officer	3
About us	4
Company strategy	5
2023 ESG performance highlights	6
ESG benchmarking highlights	8
Our approach to sustainability	10
Materiality assessment process	11
Our value chain	14
Our stakeholders	16
Corporate governance	20
Health and safety	38
Environment	44

People and culture	54
Community	60
Santos Foundation	71
Economic sustainability	82
Climate	90
Appendices	156
Appendix 1 - Glossary	157
Appendix 2 - Abbreviations and acronyms	163
Appendix 3 - Units of measure	164
Appendix 4 - Summary data tables	165
Appendix 5 - GRI index	192
Appendix 6 - TCFD Disclosures Index	209
Appendix 7 - Investor feedback and our response	214
Appendix 8 - Assurance statement	215

Santos acknowledges the Traditional Custodians of the land and water on which we work upon and pays respect to Elders past and present. We extend this respect to all Indigenous people and recognise your continuing cultural and spiritual connections to your Country.

# **OVERVIEW**

Message from the Chair of the Board

Message from the Chief Executive Officer

About us

Company strategy

2023 ESG performance highlights

ESG benchmarking highlights

Our approach to sustainability

Materiality assessment process

Our value chain

Our stakeholders



# **Message from the Chair of the Board**

At Santos, our purpose is to provide reliable and affordable energy to help create a better world for everyone. Sustainability is a critical component of our corporate strategy to deliver this purpose and integral to value creation for shareholders and other stakeholders.

#### **Sustainability priorities**

Our material sustainability issues are identified under the seven pillars of governance, health and safety, environment, climate, community, people and culture and economic sustainability. We seek to drive performance in all areas of sustainability and have significantly improved the disclosures relating to sustainability in this year's report.

I am personally committed, along with my Board, to maintaining strong corporate governance and ensuring the skill sets of the Board are appropriate for the issues that Santos is facing in the short, medium and long-term. We do this by ensuring that the Board is composed of directors with complementary skill sets, as well as regularly engaging external experts to inform the Board on sustainability issues that are material to Santos.

Health and safety of our people also remains paramount, and I am pleased about the many initiatives that the company has put in place to continuously improve the safety of the workplace for our employees, contractors and partners.

#### Climate and the transition

The global community is facing an unprecedented challenge to transition the world to a Net Zero emissions economy. Santos has an important role to play in the energy transition, and we continue to make progress with the delivery of our Climate Transition Action Plan (CTAP), which is focused on lowering our operating emissions and developing low carbon fuels to meet the energy needs of our customers.

Over the past 12 months, management and I have engaged with many shareholders to understand their views on our CTAP. Following feedback from our shareholders, we have conducted an extensive process to better understand the sources and composition of our Scope 3 emission profile and, in this year's report, we release what we consider to be industry-leading disclosure around our material emissions categories. This comprehensive work has provided insight into customer demand for, and use of, our products and has informed conversations with our suppliers about how they can reduce their emissions - in turn reducing our upstream Scope 3 emissions. We will continue to evaluate opportunities and proactively collaborate with customers and suppliers to reduce emissions across the supply chain.

We will continue to evaluate our CTAP to ensure that it reflects changes in the external environment, improvements in technology, as well as feedback from our customers, communities, shareholders and other stakeholders. We invite your continued feedback and every three years we will provide shareholders with a non-binding advisory vote to express their views on our CTAP.

#### **Community and stakeholder** engagement

We are also committed to partnering with the communities where we operate to build respectful and mutually beneficial relationships. I am pleased

that Santos has made meaningful progress on a number of our Indigenous indicators.

Our extensive consultation and engagement with local communities will enable Santos to continue to build sustainable partnerships, as well as generate opportunities for work and economic growth across the geographies where we operate.

Understanding stakeholder issues and concerns enables Santos to manage impact and risks and determine opportunities to create shared value. The feedback we received from various stakeholders. including shareholders, and our responses are outlined in this report on page 16.

We are confident our approach to sustainability and climate will enable Santos to be resilient through the energy transition, positively impact the communities where we operate, provide the critical fuels to meet customer demand, and continue to generate value for employees and shareholders.

Thank you for your ongoing support.



M. Spence **Keith Spence** 

Chair of the Board

# **Message from the Chief Executive Officer**

2023 was a significant year for Santos, as we continued to reliably produce the energy the world needs, to progress new projects, including our significant decarbonisation agenda, and to create a lasting and positive legacy in the communities where we operate.

I'm pleased to provide all of you, our stakeholders, with the most detailed and comprehensive Sustainability and Climate report in the company's history.

For us, sustainability is about how our operations and actions can generate long-term value for our stakeholders including our communities, Traditional Custodians, employees, partners, suppliers and shareholders.

To better articulate our sustainability pillars, priorities and material topics, this year's report provides details of a comprehensive materiality process that was undertaken to review and confirm the topics most relevant to our strategy and value creation, as well as those impacting our internal and external stakeholders. This increased data and disclosures demonstrates our accountability for material sustainability issues and provides the nonfinancial information our stakeholders need to better understand our risks, impacts and opportunities.

In 2023, we delivered strong safety performance. including improvements in lost time injury rate. high potential event rate and Life Saving Rules verifications. In terms of employee health and wellbeing, we delivered several important initiatives, including the successful trial of on-site GP services for our people.

Throughout 2023, we made significant progress on our CTAP. We invested over \$170 million in CTAP initiatives, and our Moomba Carbon Capture and

Storage (CCS) project entered the commissioning phase and is due for first injection in the middle of this year. This will be a significant milestone for Santos as it is one of the cornerstones of our emissions reduction initiatives and strategy to develop low carbon fuels.

In 2023, we saw a surge in demand for our CCS capabilities including in the Cooper Basin, at Bayu-Undan and offshore Western Australia. We signed Memorandum of Understandings with various third parties, for proposed storage of CO2 at Bayu-Undan CCS and Moomba CCS hubs. We also entered into agreements with Osaka Gas Australia and several Japanese utilities to investigate the potential for producing carbon-neutral e-methane.

Santos conducted a number of decommissioning activities across 2023, including safely removing floating assets from the Mutineer, Exeter, Finucane. Eletcher fields.

In 2023, we launched a new Employee Value Proposition, a new performance and reward framework for our people, along with increasing flexibility through a compressed nine-day fortnight for our Australian and Alaskan workforce - with pilots currently underway in Papua New Guinea and Timor-Leste.

Santos paid over \$950.000 in childcare payments to working parents in Australia and over 700 of our employees were invited to participate in a Technical Development program.

One of the most exciting initiatives of 2023, was the expansion of the Santos Foundation across all of Santos' operating areas in Australia, Timor-Leste and Alaska building on the more than a decade of work the Foundation has done in Papua New Guinea.

The Santos Foundation builds on the deep and enduring partnerships and respectful and mutually beneficial relationships we have across the areas where we operate.

I was also proud to establish an Indigenous Advisory Panel (IAP) to assist the senior leadership team with delivering tangible, meaningful and sustainable outcomes for the Indigenous communities where we operate in Australia. In its first 12 months, the IAP advised on our delivery of a number of key initiatives including an Aboriginal and Torres Strait Islander recruitment program which resulted in an increase of 17 Aboriginal and Torres Strait Islander employees. During 2023, Santos also introduced an Aboriginal and Torres Strait Islander employee mentoring program called Mob Matters.

This year's Sustainability and Climate Report details the progress we are making in relation to our material topics and against our goals and aspirations on the path to our 2040 Vision and creating a better world for everyone. I look forward to your feedback and continuing to evaluate opportunities to make further progress.



K. T. Gallay

Kevin Gallagher

Managing Director and Chief Executive Officer

# **About us**

Santos provides reliable, affordable energy and seeks to provide lower carbon energy over time. Santos is a global energy company with operations across Australia, Papua New Guinea, Timor-Leste and the United States.

At Santos, our goal is to be a global leader in the energy evolution to low carbon fuels by helping the world decarbonise and continuing to provide the reliable, affordable energy the world needs to sustain modern life and human progress.

Santos is an important Australian domestic gas supplier and LNG supplier in Asia. We are committed to supply critical fuels such as gas and oil, and abate emissions through carbon capture and storage, energy efficiency projects, and the use of renewables across our operations. We will also invest to develop nature-based projects to generate highquality offsets. Santos will also seek to develop low carbon fuels as customer demand evolves.

For 70 years, Santos has been working in partnership with local communities, providing jobs and business opportunities, safely developing natural gas resources and from there, powering industries and households.

Santos seeks to deliver long-term value to shareholders through our diverse portfolio of high-quality, long-life, low-cost gas and liquids assets, carbon storage resources and infrastructure.

The Santos portfolio is resilient across a range of energy transition scenarios. Santos has a climate transition action plan that will continue to evolve for the global energy evolution.

Santos has a regional operating model with a strong local focus. Our operating structure comprises three regional business units focused on enabling and executing corporate strategy. Two functional divisions - Santos Energy Solutions and Santos Upstream Gas and Liquids - are accountable for global portfolio management and strategy

#### Our values

Our values inform the behaviours, leadership attributes and decision-making of our people. These values are:



#### Work as one team

- Value diverse perspectives
- Challenge respectfully then get behind the decision
- Unite and share learnings.



#### Always safe

- Plan work to protect all from harm
- Be skilled and competent
- Understand the risks, controls and barriers
- Follow the rules and respond to change
- Speak up
- Step back, think and be ready.



#### Act with integrity

- Act ethically and do the right thing
- Value our customer relationships
- · Confront the facts
- Treat people with respect.



#### Be accountable

- · Do what we say we are going to do
- Take responsibility for our actions
- Be disciplined about meeting requirements and standards
- · Learn from success and failure.



#### **Pursue exceptional results**

- · Deliver value for our stakeholders
- Be decisive about what we can do better
- Recognise and reward achievement
- Strive for constant improvement
- Enable innovation.



#### **Build a better future**

- Leave a positive legacy
- Invest in our people
- Have a positive impact in our communities
- Protect the environment
- Be health and safety champions.

# **Company strategy**

FOR OUR CLIMATE **TARGETS SEE PAGE 94** 

Underpinned by a diverse portfolio of high-quality, long-life, low-cost gas and oil assets. Santos seeks to deliver long-term value to our shareholders.

80 per cent of the global energy demand is met with coal, oil and natural gas - the same as it has been for decades. This supply cannot be replaced overnight, which is why Santos is committed to delivering a responsible energy transition with an initial investment prioritised on decarbonisation.

With a strong, low-cost base business supplying gas and liquids. Santos' business is resilient across a range of energy transition scenarios and is well placed to address the risks and seize the opportunities of the global energy transition to lower carbon energy and low carbon fuels over the coming decades.

#### **Our Purpose and Vision**

Santos' purpose is to provide reliable and affordable energy to help create a better world for everyone.

To deliver this purpose, Santos has a three-horizon strategy which underpins our decarbonisation pathway to target net-zero Scope 1 and 2 emissions by 2040. Santos Energy Solutions will play a pivotal role in facilitating the reduction, capture, removal, storage and/or offset of global CO2 emissions.

#### **Backfill and sustain**

Santos views natural gas as critical to the energy transition and our products as essential to support energy, social and economic security for the regions we supply. Our backfill and sustain strategic horizon is to deliver upstream production in the range of 100 to 140 million barrels of oil equivalent per annum into the 2040s. Santos plans to achieve

this by developing projects already identified and/or approved.

#### **Decarbonisation**

The Santos Energy Solutions (SES) functional division will seek to provide decarbonisation services to deliver our net-zero Scope 1 and 2 emissions target by 2040, as well as offer carbon management services to third parties and develop high-quality carbon offsets through our carbon solutions business.

#### Low carbon fuels

Santos Energy Solutions will seek to develop low carbon fuels as market and customer demand evolves.

This is a simple but clear strategy that positions us to thrive in the energy transition.

#### **Sustainability**

At Santos, sustainability is about creating a better world by providing long-term value for our stakeholders including our communities. Traditional Owners, Native Land Owners, landowner companies and groups, employees, partners, suppliers, customers and shareholders.

#### **Operating model**

Our organisational structure was updated in May 2023 to provide a regional operating model with a strong local focus. The changes further improve alignment to deliver Santos' target to be net-zero

Scope 1 and 2 emissions by 2040 while maximising shareholder value. Santos' operating structure comprises three regional business units focused on enabling and executing corporate strategy. Two functional divisions - Santos Energy Solutions and Santos Upstream Gas and Liquids - are accountable for global portfolio management and strategy

The Upstream Gas and Liquids division includes an Asian market-focused LNG business with projects in PNG. Gladstone and Darwin, two Australian domestic gas businesses (west and east coast). and an oil development in Alaska.

The Santos Energy Solutions functional division is a separate revenue-generating business. Sources of revenue include midstream processing of Santos and third party gas and liquids, decarbonisation, carbon solutions and carbon management services. Santos Energy Solutions will seek to develop low carbon fuels as the market and customer demand evolves and will not earn revenue from the sale of hydrocarbons.



1 IEA 2023. World Energy Outlook 2023 (pg. 18).

# **2023 ESG performance highlights**

#### **Health and safety**



63 per cent reduction in moderate harm rate compared to 2022



50 per cent reduction in high potential event rate (with fatality potential) compared to 2022

#### **Environment**



69 per cent of waste generated is diverted from disposal



88 per cent of coal seam gas water beneficially reused

#### **Economic sustainability**



Since 2019 Santos has returned over \$3 billion to shareholders through dividends paid and share buybacks



\$257 million (gross operated; direct and indirect spend) supporting Indigenous suppliers across Australia, Alaska and PNG landowner groups

#### **People and culture**



Santos paid over \$950,000 in childcare subsidy payments to working parents in Australia



New performance and reward framework rolled out

#### Community



47 per cent increase in Aboriginal and Torres Strait Islander employees compared to 2022



96 Agreements with Traditional Owner groups



cultural heritage officers engaged



\$58.8 million in community investment (gross operated)

#### **Climate**



Moomba CCS 80 per cent complete and on track for 2024 start up. Direct Air Capture trials in Cooper Basin commenced



Over \$170m invested in Climate Transition Action Plan initiatives



Undertook a detailed analysis of our material Scope 3 emissions categories allowing for the development of our Scope 3 **Emissions Reduction Plan** 



Committed to methane reductions by becoming a signatory to the 'Aiming for Zero Methane Emissions' initiative and endorsing the 'Zero Routine Flaring by 2030' initiative

Santos Sustainability and Climate Report 2023

Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

# **ESG** benchmarking highlights

#### **Benchmarking**

#### **S&P GLOBAL CSA SCORE**

Santos has improved its S&P Global Corporate Sustainability
Assessment (CSA) score from 40 (low data availability) to 51 with
very high data availability, and performs above the Industry mean.

Updated annually as of 16 February 2024.



#### **MSCI ESG RATINGS**

As of 2023, Santos received an MSCI ESG Rating of AA.

MSCI ESG Research provides MSCI ESG Ratings on global public and a few private companies on a scale of AAA (leader) to CCC (laggard), according to exposure to industry-specific ESG risks and the ability to manage those risks relative to peers.



MSCI ESG Research provides in-depth research, ratings and analysis of the environmental, social and governance-related business practices of thousands of companies worldwide. Our research is designed to provide critical insights that can help institutional investors identify risks and opportunities that traditional investment research may overlook. The MSCI ESG Ratings are also used in the construction of the MSCI ESG Indexes, produced by MSCI, Inc. For more information, click here.

#### DISCLAIMER STATEMENT

THE USE BY SANTOS OF ANY MSCI ESG RESEARCH LLC OR ITS AFFILIATES ("MSCI")
DATA, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES
HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT, RECOMMENDATION, OR
PROMOTION OF SANTOS BY MSCI. MSCI SERVICES AND DATA ARE THE PROPERTY OF MSCI
OR ITS INFORMATION PROVIDERS, AND ARE PROVIDED 'AS-IS' AND WITHOUT WARRANTY.
MSCI NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI.



# Our approach to sustainability

I GRI 2-22

At Santos, sustainability is about creating a better world for all by providing long-term value for our stakeholders, local and Indigenous communities, landowners, landholders, employees, partners, suppliers, customers and shareholders.

We seek to balance the needs of today, supplying affordable and reliable energy and critical fuels, with the need to transition to a lower carbon future. Our Company strategy is the foundation of our approach.

#### TO ASSIST OUR STAKEHOLDERS, A NUMBER OF CHANGES HAVE BEEN MADE TO THE 2023 REPORT

This year we have uplifted the Corporate Governance section and disclosed new content including:

- Materiality assessment (as per the GRI 2021 update)
- UNSDGs in line with sustainability pillars and objectives

- Value chain
- Approach to stakeholder engagement
- Human rights
- · New ESG metrics for each pillar
- The Climate Report is also now included in the Sustainability Report.

These changes and refreshed approach follow stakeholder feedback about our Sustainability Report and reflect our commitment to disclose relevant and factual information on our pathway to adopt the recent changes in frameworks and standards including the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB).



# **Materiality assessment process**

I GRI 3: MATERIAL TOPICS 2021

We conducted a detailed materiality assessment this year to better understand our risks, impacts and opportunities, and to determine the sustainability topics for our business activities that are relevant to stakeholders.

The purpose of the assessment is to focus across our business on our main impacts and key sustainability risks. The materiality assessment was undertaken in accordance with the following standards, frameworks and guidance:

- Global Reporting Initiative (GRI) GRI 3 Material Topics 2021, GRI 11 Oil and Gas Sector Topics
- Sustainability Accounting Standards Board (SASB), Oil and Gas Sector
- UNSDGs 17 Goals and key objectives.

This materiality assessment is based on the most recent GRI methodology (2021 update) following the four-step approach. Through the materiality process we sourced quantitative and qualitative data from both internal and external stakeholders.

#### Results

The materiality assessment enabled a better understanding of the material topics across Santos' activities and business relationships. In 2023, there was a grouping of themes for some topics, for example:

- Asset integrity and critical incident management
- Governance policy, business ethics and regulatory compliance
- Employment practices and diversity and inclusion.

Santos mapped all the topics to our sustainability pillars demonstrating consistency and comparability.



13

#### 2023 Material (10), Significant (3) and Important (6) sustainability topics

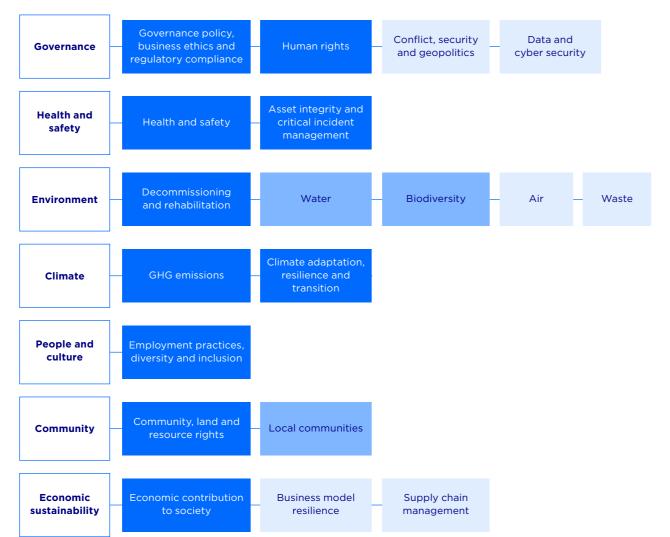
In 2023, Santos mapped the identified material topics to its pillars and added a governance pillar. These topics have been classified into three categories and Santos has followed the step-by-step method to determine our material topics as per the GRI methodology (GRI 3: Material Topics 2021):

- Material
- Significant and emerging
- Important.

The table below outlines how material topics are addressed in the report, in terms of qualitative and quantitative information. All of these topics are material to the business and are internally managed, however the level of materiality may change from year-to-year as we continue to monitor impacts, risks and opportunities, in tandem with reporting requirements and stakeholders' expectations.

Level of materiality	Information for reporting and disclosure
Material	Quantitative and qualitative - GRI indicators
Significant and emerging	Qualitative information and key data points
Important	Qualitative





#### **Material topic assessment process**

#### **IDENTIFY AND ASSESS IMPACTS ON AN ONGOING BASIS**

#### **Understand Santos' context**

In this step. Santos created an initial high-level overview of our activities and business relationships the sustainability context in which these occur and an overview of our stakeholders. This information was key to identify actual and potential impacts. In addition, relevant Santos departments and functions assisted in this step including communications investor relations, marketing and joint ventures. Furthermore, ESG ratings and peer benchmarking were used for completeness.

#### Key activities:

- Use of global standards and guidance
- Peer benchmarking of material topics
- Primary and secondary information including stakeholder consultation.

#### Identify actual and potential impacts

Santos identified actual and potential impacts (including positive and negative) across our assets and business relationships. Varied sources of information were used such as environmental licenses and impact statements, interviews with community engagement professionals across Santos, reviews of current grievance records and media reports. The enterprise risk management system was also utilised to assist impact identification and alignment.

#### **Key activities:**

- Subject matter experts' review of actual and potential impacts across Santos' assets
  - Internal and external stakeholder engagement to review risks, impacts and opportunities
  - Review and alignment with corporate risk framework.

3

#### Assess the significance of the impacts

Assessing the significance of the impacts involved quantitative and qualitative analysis as well as internal and external consultations (including ESG ratings, stakeholders' views and media and stakeholder analysis). Santos' enterprise risk framework and matrix was used to assess significance.

#### Some key external sources:

- ESG rating providers feedback and engagement
- Joint venture partners and customer ongoing engagements to review material topics
- Sustainability global media analysis.

The significance of the impacts is evaluated and grouped into topics. We then applied a ranking system to the impacts identified previously and assessed them with internal subject matter experts, senior leaders and risk management experts. The process is documented and the methodology established for future assessments for transparency and consistency.

#### **DETERMINE MATERIAL TOPICS** FOR REPORTING



#### **Prioritise the most significant impacts** for reporting

Using both internal and external information gathered in the previous steps, the material topics are ranked from most to least significant, based on impact assessment and risk framework. This defines a threshold to prioritise topics for reporting purposes.

Material topics are categorised into three tiers (material, significant and emerging, and important) and the thresholds discussed. Testing, review and approval of material topics involved both external and internal stakeholders including the Executive Leadership Team and the Board as Santos' highest sustainability governance body.

#### **Key activities:**

- Threshold for reporting determined
- Executive Leadership Team endorsement
- Safety and Sustainability Committee and Board endorsement.

The threshold for material topics for this year's report was extended to 10 material topics (from four in 2022) as part of an overall strategy of improved disclosure, including the provision of quantitative and qualitative information on a broad set of topics that are important for Santos to communicate our ongoing management in these areas with our stakeholders.

## **Our value chain**

#### I GRI 2-6

Santos' principal activities during 2023 were the exploration, development, production and marketing of hydrocarbons. Our revenue is primarily derived from the sale of gas and liquid hydrocarbons.

Santos Energy Solutions' principal activities related to operating midstream assets, the construction of Moomba CCS and progressing technologies that support the decarbonisation of ours' and others' products, including carbon capture and storage (CCS).

Santos is committed to the energy transition supporting global Net Zero through investing in carbon reduction projects, decarbonising our business and, as customer demand evolves, producing low carbon fuels to decarbonise our customers' businesses.

#### **Material topics**

- Governance policy, business ethics and regulatory compliance
- 2 Human rights
- 3 Employees health and safety
- 4 Asset integrity and critical incident risk management
- 5 Decommissioning and rehabilitation
- 6 GHG emissions
- 7 Climate adaptation, resilience and transition
- 8 Community land and resource rights
- 9 Employment practices, diversity and inclusion
- 10 Economic sustainability and contribution to society

### People 123479

Santos promotes a safe and inclusive workplace with a diverse, highly-capable workforce and a highperformance culture.

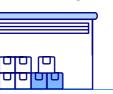






### Suppliers 1 2 8 10

We source goods and services from local and international suppliers. Santos is committed to maximising opportunities for local and Indigenous suppliers and building their capacity.





### Employment 189

Santos is committed to creating an inclusive work environment to harness our local workforce and the diversity of thought which enables the creativity and innovation to achieve our Purpose and Vision.





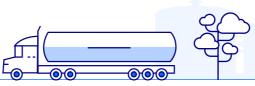
 $\sim$ 



### Customers 6 7 10

Export of product into the domestic and international markets via pipeline, road tanker or vessel. Santos supplies customers from countries that have a Net Zero commitment or are signatories to the Paris Agreement.

 $\triangle$ 





### Energy efficiency 147810

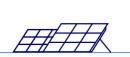
Santos is always looking to enhance operations efficiency and reduce our Scope 1 and 2 emissions via avenues including electrification, integration of energy sources and minimisation of flaring, venting, fuel use and fugitive emissions.



### Development 1 2 3 4 5 6 7 8 10

Development of oil and gas resources. We partner with landholders and work hard to prevent harm to people and the environment.







### Low carbon fuels 1 4 5 6 7 8 10

As customer demand evolves Santos aims to develop low carbon fuels, which may include products such as hydrogen and e-methane.



screening process of all projects with potential to generate carbon offsets to ensure they meet minimum requirements. This includes location, whether the project is held with an approved standard, the project method, and co-benefits for the community, environment and/or local Indigenous communities.



Delivering critical fuels that are affordable and reliable. Today energy produced by Santos powers homes, industry and public and essential services.



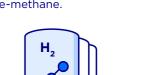
### Lower carbon energy 14567810

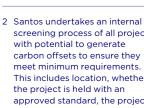
Santos seeks to provide lower carbon energy over time by utilising carbon capture and storage technologies, in addition to high-quality<sup>2</sup> offsets, energy efficiency initiatives and the use of renewables in our operations.













17

### **Our stakeholders**

#### I GRI 2-29

Santos has regular engagements with its stakeholders. Understanding stakeholder issues and concerns enables us to manage impact and risks and determine opportunities to create shared value. Responding to issues and concerns is a key priority for us and this inputs into Santos' management system, plans and performance expectations.

#### **Material topics**

- Governance policy, business ethics and regulatory compliance and regulatory compliance
- 2 Human rights
- 3 Health and safety
- 4 Asset integrity and critical incident risk management risk management
- 5 Decommissioning and rehabilitation

- 6 GHG emissions
- Climate adaptation, resilience and
- 8 Community land and resource rights
- 9 Employment practices, diversity and inclusion
- Economic sustainability and contribution to society

#### **Significant topics**

- 11 Water
- 12 Biodiversity
- 13 Local communities

#### Important topics

- 14 Conflict, security and geopolitics
- 15 Data and cyber security

- 18 Supply chain management
- 19 Business model resilience

Stakeholders	Engagements	Material, significant and important topics	Concerns and issues raised	Our response
Local communities	Community forums and events Community partnership activations Ongoing engagements with community stakeholders Regular sentiment survey (Australian communities) Consultation meetings, forums and information sessions.	8 10 13 14	Concerns related to potential environmental and social impacts Participation for local communities.	Participate in regular community forums  Engage, partner and invest in communities where we operate to create a positive legacy and build capacity  Work in partnership with landholders and landowners  Create opportunities for local (and Indigenous) suppliers to increase both capabilities and ability to supply goods and services  Build sustainable communities through investing in local jobs, supporting local businesses and paying local taxes and rates  Manage requests and complaints from local communities.

Stakeholders	Engagements	Material, significant and important topics	Concerns and issues raised	Our response
Indigenous communities	Ongoing engagement with Indigenous Groups across Santos' global footprint Yarning Circle (Australia) Indigenous Advisory Panel (Australia).	2 8 13 14	Connection to land and country  Concerns related to potential environmental and social impacts  Economic related benefits for local communities  Employment-related benefits for local communities  On country and remote working opportunities.	Indigenous Advisory Panel (IAP) formed with Traditional Owner representatives. IAP Charter created and three meetings held in 2023 (Australia)  Cultural awareness training covering all of the specific cultures across Santos operations globally (including Papua New Guinea, Timor-Leste and Alaska) including cultural immersion programs  Engage and partner with Indigenous communities to create positive economic, social and cultural outcomes  Yarning Circle held with representatives from a wide range of Traditional Owner groups (Australia)  Performed community consultations across key communities for project development activities  Supported and sponsored the World Indigenous Business Forum (WIBF) in Port Moresby, engagement with Government officials, landowners, Indigenous business owners/future suppliers  Community investment framework to support local enterprise and ideations through funding, support, training and grants.
Our landholders / landowners	Landholder liaison officers Forums and information sessions.	3 9	Land access.	Engage with landholders  Manage requests and complaints from landholders.
Our people	Yarning Circles held for Aboriginal and Torres Strait Islander employees Workshops and Townhalls Performance and Development Meetings Employee Value Proposition (EVP) Employee Sentiment Survey Focus groups.	3 9 14 19	Improvement to employee experience  New Employment Value Proposition, for greater flexibility.	Empowering leaders with results for greater speed to action and feedback to our people  New Employment Value Proposition launched  Santos' Energy to Achieve: Launched a clear and simple employee framework for understanding performance and unleashing potential at Santos.
Our suppliers and contractors	Supplier forums Relationship Managers Site visits.	1236	Partnering for health and safety Supporting Indigenous and local suppliers and contractors Ethical business conduct and respect for human rights by our suppliers.	Supplier forums and accountability for improvement actions Anti-corruption compliance program, including counterparty screening and due diligence Assessment of potential supplier human rights-related risks Implementation of new low-value, low-risk tender schedule and contract template to support local and Indigenous participation through our supply chain.

Stakeholders	Engagements	Material, significant and important topics	Concerns and issues raised	Our response
Our joint venture partners and peers	Regular operational and technical management committees Operational and project updates Performance appraisals Site visits and online information portals Industry working groups.	0345 6280	Health and safety management Environmental and social impact assessment.	Regular engagements and formal committees Working collaboratively Relationship partners.
Our governments and regulators	Regular meetings Policy submissions.	<b>13456</b> <b>811246</b>	The need for responsible resource and new energy development Regulatory compliance.	Regular engagement and communication, including consultation processes  Adherence to conditions and requirements  Santos' compliance management framework.
Our customers and consumers	Climate Transition Action Plan - Supply Chain Collaboration Briefings and meetings Public reports.	3467	Importance of safe and reliable product delivery Production and operational risk management The energy transition.	Asset integrity and critical incident management is a material issue for Santos and focus of management  Continuing to pursue our decarbonisation and low carbon fuels.
Our investors and financial community	Investor briefing sessions ASX public communications Public reports Financial briefing sessions (banks, insurance sector).	12356 789	Management of financial and non-financial risks Climate risk management and resilience.	Engagement with ESG rating providers to better understand ESG performance and benchmarking Improvement on communication of sustainability issues, performance and data  Proactive engagement on sustainability matters.
Non-government organisations	Engagement on key sustainability topics Meetings.	03678	Concerns regarding the speed of energy transition  Concerns regarding sustainability performance  Clarity sought on decarbonisation plans.	Commitment to international frameworks and standards for reporting Improvement on communication of sustainability issues, performance and data Proactive engagement on sustainability matters.
Voluntary advocacy organisations, industry associations, universities and research centres	Engagement on key sustainability topics Meetings.	05678	Energy security Regulatory uncertainty Energy transition.	Regular engagements and formal committees Working collaboratively.

#### **Performance highlight**

Corporate Governance

### Indigenous Advisory Panel (Australia) -Partnerships for positive and sustainable impact

In 2023, Santos established an Indigenous Advisory Panel (IAP) chaired by the CEO, to enable Santos Executive Leaders and Australian Traditional Owners the chance to work together and deliver tangible, meaningful, and sustainable outcomes for their communities in the areas in which we operate in Australia. The Indigenous Advisory Panel resulted from feedback gained during a Yarning Circle back in November 2022 where Traditional Owners asked for real action to come from these discussions. This has resulted in a significant uplift in Aboriginal and Torres Strait Islander engagement in key areas of the business, including employment and supplier spend, and has had a constructive and positive impact on the way Santos conducts our business.

The IAP identified focus areas with significant progress being made in the first year, including:

- An Aboriginal and Torres Strait Islander employment and training pathways
- An Aboriginal and Torres Strait Islander recruitment program was initiated resulting in an increase of 17 employees being recruited across Australia
- An overall Aboriginal and Torres Strait Islander contractor workforce increase by 44 per cent in 2023 and permanent workforce increase by 47.2 per cent

• Expansion of early career pathway programs to include a corporate traineeship

People and culture

• Introduction of an Aboriginal and Torres Strait Islander employee mentoring program, called Mob Matters, designed to support onboarding, development and career progression.

The Santos Foundation CEO has presented to the IAP and commenced Traditional Owner listening sessions to map their community needs.

These significant achievements from the IAP in just the first 12 months are a demonstration of what can happen when challenges are identified, worked through together and a solution, implemented quickly and with purpose.

Economic sustainability

Jonathan Knight, a Wongkumara man and a member of the IAP was asked by the group to develop a piece of Art that represented the IAP story thus far and is included below with Jonathan's description of what it represents.



Jonathan Knight, commissioned Artwork, 2023

"The dots in the centre of the Artwork, represents the meeting place (Adelaide) where all members that sit on the IAP attend. The symbols that surround the dots represents the IAP members, women and men. The fish that swim up and back represent the information that we gather from our communities, and bring back to the meeting place for discussion. The six small circles with the women and men symbols represent the six Traditional Owners land groups that sit on the IAP. So the story of this artwork represents people from all different backgrounds, bringing information in for discussion and then taking that information back to their Communities so we help each other and move forward."

**Appendices** 

Sustainability pillar

# CORPORATE GOVERNANCE

#### 2023 performance summary

- Continued to embed Compliance Catalyst, an external screening platform, to support enhanced counterparty due diligence screening across our operations for a broad range of counterparty risks, including anti-corruption and sanctions
- No violations of applicable anti-corruption and sanctions laws were recorded in connection with Santos operations.

#### MATERIAL TOPICS

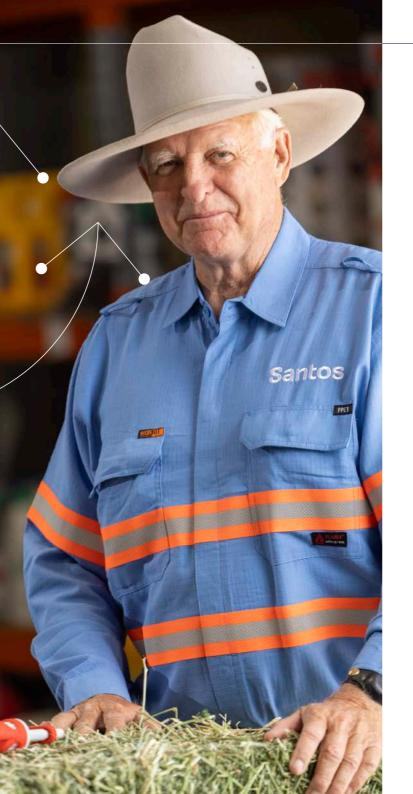
Governance policy, business ethics and regulatory compliance

Human rights

#### **IMPORTANT TOPICS**

Conflict, security and geopolitics

Data and cyber security



# **Sustainability and climate governance**

I GRI 2-9 - 2-18 AND 2-24

Effective corporate governance is critical to the long-term success and sustainability of Santos. The Board and all levels of management are committed to maintaining and enhancing a strong corporate governance framework.

Full details of Santos' corporate governance are available on the website at <a href="mailto:santos.com/about-us/corporate-governance/">santos.com/about-us/corporate-governance/</a>. This section provides additional information and detail related to the governance and oversight of sustainability and climate, and how the governance framework supports Santos' <a href="mailto:climate-policy">Climate Policy</a>.

The Board views sustainability, including climate, as a material strategic issue for Santos. The Board approves sustainability and climate strategy, goals and targets, the Climate Transition Action Plan and related policies (including Climate Policy) and oversees performance. Sustainability and climate matters are regularly discussed at Board and committee meetings, and the Board reviews and approves relevant material sustainability and climate-related disclosures including the Annual Report, Sustainability and Climate Report, Modern Slavery and Industry Associations Statements.

The Board of Santos has ultimate responsibility for the approval and oversight of strategy, and this includes our approach to sustainability. Board members bring diverse skill sets which support oversight of each of the seven sustainability pillars. The Board has a process to ensure members are kept informed on sustainability issues via input from the Senior Leadership Team as well as independent advice when considered appropriate.

The Board's oversight of sustainability and climate is supported by the following board committees:

- Safety and Sustainability Committee The purpose of the Safety and Sustainability Committee is to oversee the governance and review of Santos' activities in the areas of environment, health and safety, security, climate, anti-slavery, human rights, land access, Indigenous engagement and participation, cultural heritage and communities across Santos
- People, Remuneration and Culture Committee
- The People, Remuneration and Culture
  Committee is responsible for reviewing our
  remuneration policies and practices. Sustainability
  metrics, including those related to occupational
  health and safety, community, Indigenous
  and climate, are part of performance-based
  remuneration for executives
- Audit and Risk Committee The purpose is to oversee the review, reporting and make recommendations in relation to financial reporting, enterprise risk management, internal control systems, the internal and external audit functions

and reserves and resources reporting. This includes review of the effectiveness of risk management for carbon and a number of sustainability-related risks

**Appendices** 

 Nomination Committee - The purpose of the Nomination Committee is to assist the Board with succession planning. It proposes candidates for consideration by the Board to fill casual vacancies or additions to the Board, and devises criteria for Board membership, which includes experience with climate, energy transition, community and sustainability.

The Committees' cross memberships support sound communication of sustainability matters across the various committees. After the merger with Oil Search in 2021, the Santos Board has been expanded by two positions, following the departure of one existing Santos Board member, and the addition of three Directors who have joined from Oil Search. Santos will continue to review and implement appropriate changes to our governance arrangements given the change in size and scale of our company.

The CEO, with the support of the Senior Leadership Team is responsible for delivering the strategic direction and goals approved by the Board, including the company's approach to climate and sustainability

Santos regularly reviews the collective skills and experience of the Board members in relation to re-election of directors, committee membership and appointments of any new directors. The current Board competency matrix is set out in the Santos 2023 Corporate Governance Statement.

The Board acknowledges that the environment in which Santos operates is rapidly changing and that we need to be dynamic to manage risks and take advantage of opportunities as they relate to material sustainability matters including climate and the energy transition. In addition to the governance processes described above, the Board has a continuing education program which includes a focus on enhancing expertise in sustainability topics, climate and the energy transition. For example, in 2023 the Board received updates on the International Sustainability Standards Board standards and expected approach to adoption of related standards in Australia and is monitoring

#### **Santos Management System**

Santos' transition to the new standards.

The Santos Management System (SMS) applies to all of Santos' people and establishes the requirements for how Santos does business across our assets and functional support teams. It is designed to protect our people, the communities where Santos operates, and the environmental values of our assets, operations, and activities. The SMS comprises:

- Delegation of Authority
- Operating Standards explaining the minimum standards for 'what' the business must achieve
- Procedures, technical standards, processes and tools explaining the expectations and practices for how business activities should be undertaken.

Various business teams are responsible for the day-to-day implementation of plans, processes procedures, and tools that are embedded within the SMS and align with the seven sustainability pillars. Each sustainability pillar has an assigned business owner who supports communication and reporting of performance.

#### Management

The CEO and Executive Leadership Team are responsible for delivering the strategy and goals approved by the Board. These include accountability for outcomes of climate and sustainability-related targets approved by the Board. Executive responsibilities related to sustainability include:

#### CHIEF EXECUTIVE OFFICER

The CEO chairs the Executive Leadership Team and has overall accountability for the implementation of strategy and outcomes

#### CHIEF STRATEGY OFFICER AND CHIEF OF STAFF

The Chief Strategy Officer and Chief of Staff, a member of the Executive Leadership Team and a direct report of the CEO, is responsible for climate and sustainability reporting and corporate and ESG strategy. This role has accountability for implementation of sustainability and climate strategy across Santos

#### **GROUP GENERAL COUNSEL AND EXECUTIVE VICE PRESIDENT ENVIRONMENT AND GOVERNANCE**

The Group General Counsel and Executive Vice President Environment and Governance, a member of the Executive Leadership Team and direct report of the CEO, is responsible for community and Indigenous partnerships, environment and land access, risk, compliance and internal audit, corporate secretariat and business integrity. They also have stewardship of the Santos Management System, by working with corporate functions and the functional divisions to set standards and monitor and assure performance across our business

#### **EXECUTIVE VICE** PRESIDENT **OPERATIONS AND TECHNICAL SERVICES**

**Executive Vice President** Operations and Technical Services, a member of the Executive Leadership Team and direct report of the CEO, has oversight of health safety and security for Santos

To ensure effective cross functional communication on issues related to climate change and sustainability, Santos' governance processes include meetings across a range of business groups, and Executive Leadership Team meetings to ensure conformance with Santos Management System (SMS) and track delivery against plans and targets

#### **Corporate governance framework**

Regularly monitors the Risk Management Framework

including the Risk Management Policy and material

changes in risk appetite

**Corporate Governance** 

The purpose of Santos' corporate governance framework is to assist our people to make good decisions that promote the longer-term success of Santos. Our corporate governance framework is illustrated in the following table.

#### THE BOARD

Environment

Accountable to shareholders for the performance of Santos. It is responsible for overseeing the safe and sustainable operations of the Company in accordance with the Company's Values

#### **BOARD COMMITTEES**

All Board committees have procedures and practices in place to ensure they effectively communicate in relation to matters of shared responsibility. They assist the Board to discharge its responsibilities in relation to:

#### PEOPLE, REMUNERATION **AND CULTURE**

Including the remuneration framework and people and culture strategies and initiatives

#### **AUDIT AND RISK**

Health and safety

Including risk management internal and external audit, reserves and resources. financial reporting and Whistleblower/ Reporting Misconduct

#### SAFETY AND SUSTAINABILITY

People and culture

Including Environment, Health and Safety, Security, Climate, Antislavery, Human Rights, Land Access, Indigenous Engagement and Participation, Cultural Heritage and Communities

#### NOMINATION

Economic sustainability

Including delivering nomination criteria for, and reviewing membership and nominations to, the Board

Approves Santos' Values and monitors our performance in line with our values

Climate

Approve the Santos' Code of Conduct Receives recommendations from Audit and Risk Committee Reviews of climate material Enterprise Risk

Receives recommendations from the Safety and Sustainability Committee on climate and sustainability-related issues and Santos' performance in managing climate risks and opportunities.

Receives updates on climate developments from subject matter experts including information about risks, risk mitigation measures, opportunities and the financial impacts for Santos arising from climate-related issues

Santos Management System - Delegation of Authority, operating standards and procedures, including Risk Appetite Statement and the Risk Management Framework

#### MANAGEMENT UNDER THE LEADERSHIP OF THE CHIEF EXECUTIVE OFFICER

Responsible for delivering the strategic direction and goals approved by the Board

Supported by teams who continually monitor and access trends and changes in Australian and international energy markets, assess and model a range of energy mix scenarios based on varying policy and technology drivers, and conduct portfolio and asset reviews of our business and strategy

Board, along with the other Directors and Chair, are responsible for setting, assessing and reinforcing the Santos Culture.

The CEO as a member of the

**Appendices** 

23

Responsible for regular monitoring and reviewing of Santos' approach to climate including our Climate Policy and sustainability and climate change risk and opportunities

25

#### **Executive remuneration**

I GRI 2-19

The People, Remuneration and Culture Committee is responsible for the oversight and formulation of remuneration recommendations to the Board for the Senior Executives and the Company more broadly. For over a decade the Short-Term Incentive (STI) has included sustainability metrics and from 2019 specific metrics related to emissions reduction as well as advancement of carbon capture and storage projects. As the below timeline outlines, Santos has been proactive in continually strengthening the links between outcomes of performance pay and sustainability.

Sustainability issues are a key component of performancebased remuneration. The 2023 STI plan had a weighting of 40 per cent towards sustainability and climate issues. The strong focus on sustainability metrics is designed so that the management team are rewarded for delivering outcomes which lead to sustainable returns in the long-term and ensure delivery of our climate change commitments.

Since 2019 the STI has included measures that reward Key Management Personnel (KMP) for emissions reduction, as well as advancement of carbon capture and storage projects. These are intended to strengthen the link between the outcomes of performance pay and the effective implementation of our Climate Policy.

In 2020, climate measures had a weighting of five per cent of the STI. These measures related to reducing our emissions from operated assets.

 Santos also announced revised targets in pursuit of accelerated emissions reduction over a shortened time, releasing detailed 2030 and 2040 targets, including achieving net-zero Scope 1 and 2 emissions by 2040.

In 2021, the Board further strengthened the link between executive remuneration and climate by allocating an additional weighting of 7.5 per cent of the STI to the delivery of initiatives to achieve our target of net-zero Scope 1 and 2 emissions by 2040.

In 2022, the Board further strengthened the link between executive remuneration and sustainability by allocating an additional weighting of 2.5 per cent of the STI for a total of 15 per cent.

• To further align the CEO's remuneration structure with Santos' transition plans, the Santos CEO participated in the Growth Projects Incentive, involving a one-off grant of Share Acquisition Rights, with a performance period of five years ending on 31 December 2025 and a weighting of 40 per cent to emissions reduction, net-zero plan and energy transition. See further details in Santos' Annual report.

In 2023: The Santos Remuneration report, found in the Annual report, details the four quadrants of the 2023 Company Balanced Scorecard used to assess performance of the short-term initiative plan. Sustainability accounts for 25 per cent of the company scorecard and includes safety, environment, Cultural Heritage, Community and People related measures. In addition, the production and backfill, sustain and decarbonisation quadrant includes climate-related measures that account for 15 per cent weighting. These quadrants continue to reinforce the link between sustainability and climate in relation to executive remuneration.

Delivery of these KPIs with a weighting of 15 per cent continues to reinforce the link between sustainability and climate change in relation to executive remuneration.

• The Chief Executive Officer's realised remuneration can be found in Table 6 and statutory remuneration can be found in Table 9 of the Santos 2023 Annual Report Santos is committed to managing climate risk and delivering a sustainable business model in a low carbon world and has committed to hold our senior executives to account through a direct linkage to our climate and sustainability-based KPIs and their variable remuneration

### **Disclosure frameworks**

#### **United Nations Sustainable Development Goals (UNSDGs)**

The United Nations Sustainability Goals provide a reference for Santos to align objectives and sustainability pillars addressing our approach to ESG matters including governance, health and safety, environment and climate, people and culture, community and economic sustainability.

#### **Global Reporting Initiative (GRI)**

Santos' sustainability performance during 2023 is disclosed in accordance with the GRI standard 2021 update in line with the following reporting principles:

- Accuracy
- Balance
- Sustainability context

Completeness

- Clarity
- Timeliness
- Comparability
- Verifiability

#### Task Force on Climate-related **Financial Disclosures (TCFD)**

Santos reports annually on our climate governance, strategy, risk management, and targets and metrics in a transparent manner, aligned with recommendations of the Task Force on Climaterelated Financial Disclosures (TCFD).

This year marks the release of Santos' seventh Climate Report referencing these disclosure recommendations. EY has provided assurance of disclosures in alignment with the TCFD recommendations, including the assumptions and approach supporting scenario modelling. Assurance has also been provided in relation to Santos' Climate Transition Action Plan and material Scope 3 emissions categories.

As with previous years, Santos has also sought to engage with the Science Based Targets Initiative on the development of reporting, accounting and target-setting frameworks for the oil and gas sector. The Science Based Targets Initiative has not published sector guidance for the oil and gas sector.

Santos acknowledges the recent changes in sustainability reporting frameworks including:

- International Financial Reporting Standard (IFRS), International Sustainability Standards Board (ISSB) Standards, IFRS S1 and S2
- Australian Accounting Standards Board (AASB), Australian Sustainability Reporting Standards (ASRS), Exposure Draft ED SR1 Australian Sustainability Reporting Standards - Disclosure of Climate-related Financial Information
- Task force on Nature-related Financial Disclosures

In response to those changes, Santos has established a working group on our pathway to reflect the applicable standards and frameworks in our commitment to improving our sustainability reporting and meeting stakeholder expectations. Regular updates on adoption progress will be provided to the CEO and Board Committees.



2021 2019 2020 2023 Santos Sustainability and Climate Report 2023 People and culture Economic sustainability Appendices

UNSDGs

Policies

Material

topics (based

# **Santos' alignment with United Nations Sustainable Development Goals (UNSDGs)**

Santos has aligned our sustainability framework and most material topics with the UNSDGs. We have policies, statements, objectives and targets that enable meaningful contribution to global progress against the UNSDGs.

Pillars	Material topics (based on the GRI methodology)	UNSDGs	Policies	Objectives	Aspirations and targets
Governance	Governance policy, business ethics and regulatory compliance	13 cm 16 Notes of the control of the	Code of Conduct Corporate Governance Statement 2023 Reporting Misconduct (Whistleblower) Procedure Risk Management Policy Anti-Corruption and Sanctions Compliance Procedure Climate Policy.	Santos supports the intent and purpose of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (ASX Principles) and meets the specific requirements of the 4th Edition, as outlined in the Corporate Governance Statement.  Code of Conduct: The Board of Santos is committed to being a good corporate citizen with a culture that values high standards of ethical and socially responsible conduct, and complies with its legal obligations in all operations in accordance with the Santos Values.  Anti-Corruption and Sanctions: Santos, our Board, and senior management are committed to complying with relevant anti-bribery, corruption and sanctions laws in all jurisdictions in which we operate. We have assessed our exposure to a range of bribery and corruption, and sanctions compliance risks (arising from the geographic areas in which we operate and the nature of our business). Consequently we have adopted controls responsive to such risks.  Reporting Misconduct: Santos is committed to achieving high standards of ethical conduct and compliance with our legal obligations. This commitment includes creating and maintaining a working environment in which Santos workers (or other eligible whistleblowers) are able to freely raise concerns regarding actual or suspected unethical, unlawful or undesirable conduct and to protect Santos workers (or other eligible whistleblowers) from reprisal.	Risk Management: Santos and its board are committed to maintaining a Risk Management Framework to ensure the ongoing effectiveness of risk management and decision making within our company  Aspiration and Target: Continue to ensure that Management operates in accordance with the Risk Appetite Statement approved by the Board, and that opportunities, as well as risks, are identified, controlled and managed in a systematic manner.





































	methodology)				
Governance	Human rights	8 STEEN HOME AND STEE	Human Rights and Modern Slavery Policy     Annual Modern Slavery Statement.	Santos is committed to supporting and respecting the protection of internationally recognised human rights as set out in the United Nations International Bill of Human Rights, and working to align with the UN Guiding Principles on Business and Human Rights and the Voluntary Principles for Security and Human Rights in our practices and procedures.  Provide a work environment and work conditions that respect the rights and dignity of Santos employees and contractors, and respect the rights of the people in communities impacted by our activities, including Indigenous peoples.	Comply with all relevant applicable human rights laws in the countries where we operate  Seek to ensure that those who provide goods and services to Santos are aware of our commitment to respect human rights and agree to uphold that commitment  Seek to engage with the communities in which we operate to understand the potential and actual human rights impacts of our activities and to prevent, mitigate or redress those impacts, as appropriate  Take efforts to identify and address risks of modern slavery and forced labour in our operations and supply chain, and report on actions taken on an annual basis.
Health and safety	Health and safety	3 min man and min	Environment, Health and Safety Policy.	Our health and safety performance objectives are to:  Be an industry leader in health and safety performance  Apply past learnings as controls to future tasks  Be the safest operator where we have a presence  To help create a shared language on mental health awareness and contribute to the growth of a more positive wellbeing culture for employees.	Be a best-in-class Process Safety performer     Embed industry-leading integrity and risk management practices     Develop connected systems and processes to complement a competent and committed workforce.
	Asset integrity and critical incident risk management	11 MATERIAL COMMANDERS  12 MATERIAL COMMANDERS  14 MATERIAL COMMANDERS  15 MATERIAL COMMANDERS  15 MATERIAL COMMANDERS  15 MATERIAL COMMANDERS  16 MATERIAL COMMANDERS  17 MATERIAL COMMANDERS  18 MATERIAL COMMANDERS  18 MATERIAL COMMANDERS  19 MATERIAL COMMANDERS  19 MATERIAL COMMANDERS  10 MATERIAL COMMANDERS  10 MATERIAL COMMANDERS  11 MATERIAL COMMANDERS  12 MATERIAL COMMANDERS  13 MATERIAL COMMANDERS  14 MATERIAL COMMANDERS  15 MATERIAL COMMANDERS  16 MATERIAL COMMANDERS  17 MATERIAL COMMANDERS  18 MATERIAL COMMANDERS  18 MATERIAL COMMANDERS  19 MATERIAL COMMANDERS  19 MATERIAL COMMANDERS  10 MAT	Environment, Health and Safety Policy.	<ul> <li>2040 objective:</li> <li>Be one of the safest, most reliable and lowest cost operators globally</li> <li>Avoid harm to personnel through the prevention of major accident events</li> <li>Lead risk and learning management systems</li> <li>Continually improve process safety capability and culture</li> <li>Continually improve the use of technology to enable our workforce.</li> </ul>	

Aspirations and targets

Objectives

<sup>1</sup> Source: https://sdgs.un.org/goals.

Pillars	Material topics (based on the GRI methodology)	UNSDGs	Policies	Objectives	Aspirations and targets
Environment	Decommis- sioning and rehabilitation	9 WINDSHIP WINDSHIP  12 WINDSHIP  30 PRINCES  30 PRINCES  40 PRINCES  13 ADMIN  40 PRINCES  15 ST. INC.	Environment, Health and Safety Policy.	Engage with local supply chains and be an active participant in decommissioning industry bodies  To mitigate the environmental impacts of our operations and activities, and to work with our communities and partners for positive environmental outcomes.	By 2030:     Have Net Zero abstraction of water from Great Artesian Basin aquifers     Complete 100 per cent background methane gas and baseline assessments across all onshore operations.      Zero waste to landfill by 2050.
Climate	GHG emissions	13 and 15	Environment, Health and Safety Policy     Climate Policy.	Our climate objective is to deliver on the dual ambitions of minimising emissions from our operations and supplying affordable, reliable and lower carbon energy to Australian domestic and global markets.	Santos' Climate Targets include:  30 per cent reduction in Scope 1 and 2 emissions by 2030 <sup>2</sup> 40 per cent reduction in Scope 1 and 2 emissions intensity by 2030 <sup>3</sup> Reduce customers' emissions (Santos Scope 3) by at least 1.5Mtpa of CO2e by 2030  Net-zero Scope 1 and 2 emissions by 2040.
	Climate adaptation, resilience and transition	7 minoration 111 minoration 201  8 minoration 201  9 minoration 201  15 minoration 201  15 minoration 201  2 minoration 201  2 minoration 201  3 minoration 201  3 minoration 201  4 minoration 201  4 minoration 201  5 minoration 201  5 minoration 201  6 minoration	Environment,     Health and     Safety Policy     Climate     Policy.		2 30 per cent absolute reduction is from the Santos and Oil Search combined 2019-20 equity Scope 1 and 2 emissions baseline of 5.9 MtCO2e, representing a reduction to 4.1 MtCO2e or lower by 2030.  3 40 per cent intensity reduction is equity share of Santos Scope 1 and 2 emissions intensity from a 2019-20 baseline of 55 ktCO2e/mmboe, representing a reduction to 33 ktCO2e/mmboe or lower by 2030.

Pillars	Material topics (based on the GRI methodology)	UNSDGs	Policies	Objectives	Aspirations and targets
People and culture	Employment practices, diversity and inclusion	5 mount  S mount and and 10 mount about  10 mount about	Diversity and Inclusion Policy.	To build an inclusive workplace and continue investing in a diverse, highly-capable workforce and a highperformance culture.	Attract top talent and retain our best people Grow an organisational learning culture Build a diverse and inclusive work environment Harness talent to sustain our disciplined operating model Live the Santos One Team culture where our people are focused, entrepreneurial, energised and disciplined to leave a positive legacy.
Community	Community, land and resource rights	1 Section 1 Sect	Local and Indigenous Participation Policy.	Our objective is to proactively partner with Indigenous people and groups, landowners, landholders and communities to build respectful relationships and deliver positive community outcomes  Continue to financially support the Santos Foundation.	Be a leader in community engagement and cultural heritage management  Have industry best-practice recruitment and development programs for meaningful career opportunities for communities and Indigenous people  Actively partner with Indigenous and local businesses through our Supply Chain  Provide meaningful training and employment opportunities for the communities in which we operate  Create a positive legacy and build capacity in the communities where we operate  Provide economic benefits to Indigenous and local businesses through the creation of supply chain opportunities  Build sustainable communities through supporting local businesses and paying local taxes and rates on time  Invest in opportunities to uplift local and Indigenous participation through sourcing activities  Work in partnership with landowners and landholders.
Economic sustainability	Economic sustainability and contribution to society	8 accessors and accessors and accessors and accessors and accessors accessor	Dividend Policy     Annual Tax     Contribution     Disclosure     Capital     Management     Framework     Taxation Policy     Disciplined     operating model.	Our objective is to be an economically sustainable company which supplies reliable, affordable energy and contributes positively to the national and regional economies where we operate.	<ul> <li>Maintain an economically sustainable operating model</li> <li>Apply disciplined capital allocation to underpin investment</li> <li>Deliver returns to stakeholders</li> <li>Pay tax and royalties and provide a return to the community.</li> </ul>

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

29

# **Sustainability advocacy**

I GRI 2-23, 2-24 AND 2-28

All Santos advocacy activities including both direct and indirect engagement responses to Government consultations, are guided by our policy positions including those relating to human rights, anti-bribery and corruption, climate, environment, health and safety, local and Indigenous communities, and diversity and inclusion.

In the conduct of Santos' activities, we are a member of a large number of organisations, ranging from community bodies, chambers and business councils relevant to the communities and regions we operate in, as well as industry-related representative bodies known as 'industry associations'.

Santos is a member of these organisations so that we can:

- Gain an understanding of communities, regions and economies where we operate
- Understand how we can contribute positively and effectively with stakeholders
- Enhance technical knowledge, share learnings and develop standards within industry
- Engage in policy development.

Our memberships allow us a forum to listen, debate seek alignment and promote the key interests of communities and industry organisations.

Santos regularly reviews memberships of industry associations to assess whether to become, or remain, a member. We also assess our membership of industry associations with reference to alignment with our climate policy positions. Please refer to our 2023 Statement on Review of Industry Associations for more details

#### Political engagement

Santos engages with all levels of government in relation to our projects, operations, maintaining energy supply and reducing our carbon footprint. In Australia, this includes engagement in business forums and events where Santos pays for membership and/or attendance.

Santos believes it is important for us to engage in the discussion about the world's energy future and the role we can play through our natural gas portfolio and our emerging low carbon fuels business.

We manage fundraising requests from Australian political parties under rules set out in an operating standard and we:

- Do not make cash donations to political parties or candidates
- Declare all payments for events and memberships in line with, or above, legislative requirements.

In Alaska, we do not engage in fundraising for political parties through the corporate treasury.

Being involved in political party business programs in a bipartisan manner is an appropriate and important way for the business community and Santos to contribute transparently to the political process, and to help ensure the stability of democratic systems. This helps foster stable policy, regulation and taxation for business, which in turn generates investment, jobs and greater prosperity for the communities we operate in. These programs have transparent membership fees and services.

Santos is a member of the following Australian national political party business forums:

- Federal Labor Business Forum (Federal ALP)
- Australian Business Network (Federal Liberal Party)
- National Policy Forum (Federal National Party).

From time to time, specific events such as Budget or Budget-reply events or policy launch events are also held. Individual members of parliament or candidates also host business events featuring guest speakers who are generally ministers or shadow ministers. Participation in these events requires payment of an attendance fee not covered by the fees paid for membership of the business forums.

Given there is no public funding of Commonwealth election campaigns, there is an expectation by the major political parties that the corporate sector will engage through the above transparent mechanism. The involvement of a wide range of companies in this process helps to ensure that funding of the democratic process is received from multiple sources and wide-ranging policy positions and interest, so that no single interest unduly influences the political process.

Santos is not a member of state-based political party business forums and considers individual event requests on a case-by-case basis where there is a clear business reason.

Federal, State and Territory Electoral Commissions in Australia publish reported payments through transparency registers and electronic disclosure systems.

#### Climate advocacy

Santos recognises the scientific consensus of climate change assessed by the Intergovernmental Panel on Climate Change. We support the objective of the Paris Agreement to limit global temperature rise to less than 2 degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius

Through direct engagement with policy makers and indirect engagement through our industry association memberships, Santos advocates for environmentally, socially and economically effective and responsible energy and carbon policies that are aligned with our Climate Policy.

Santos is proactive in supporting awareness of the availability, responsible extraction, demand for, and advantages of, natural gas as a transition fuel, carbon capture and storage, and low carbon fuels to achieve a lower carbon future. All Santos' advocacy activities including direct and indirect engagement and responses to Government consultations, are guided by the Company's policy positions.

As detailed in our Climate Policy, Santos actively works with governments and stakeholders in the design of climate regulation. We do this in pursuit of decarbonisation goals, striving for a policy and regulatory framework that supports lowest-cost abatement and innovation and investment in low emissions technologies, while continuing to ensure access to reliable and affordable energy in Australia and Asia.

In 2023, this included direct engagement with, and/or submissions made, to federal government agencies on the following topics:

- Reforms to the Federal Government's Safeguard Mechanism
- Implementation of recommendations from the Independent Review of Australian Carbon Credit Units.

Additionally, in 2023 we also worked with the PNG Chamber of Resources and Energy, Alaska Oil and Gas Association and Resource Development Council of Alaska to develop an approach to climate change.

#### **Human rights advocacy**

Santos joined the Human Rights Resources and Energy Collaborative in 2023 in which industry peers share best practice for the effective and efficient management of human rights risks, including modern slavery.

Santos has also participated in the Attorney-General's consultation process for the review of the Australian Modern Slavery Act (2018) As part of our public submission, we expressed our commitment to doing our part to detect and combat modern slavery by working with our suppliers and reporting on our annual progress to detect and combat modern slavery throughout our supply chain. We also engaged constructively on issues raised as part of the review, including due diligence requirements, compliance and enforcement mechanisms in the Modern Slavery Act and the role and functions of the proposed Anti-Slavery Commissioner.

The Modern Slavery Act has had a positive impact on Santos' efforts to prevent the occurrence of modern slavery and human trafficking in our own operations and in the operations of those that provide goods and services to Santos. We have

implemented a range of processes and procedures to ensure we are monitoring and addressing modern slavery risks in our supply chains and welcome opportunities to actively work with government and stakeholders in the design of modern slavery regulation as this develops.

Santos has achieved the A rating in Monash's Modern Slavery Disclosure Quality assessment



Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

Material topic

# Governance policy, business ethics and regulatory compliance

GRI 2-25, 2-26, 3-3, 11.19, 11.20 AND 11.22

#### Our approach

Governance is a material topic for Santos. We are committed to being a good corporate citizen, with a culture that values high standards of ethical and socially responsible conduct and complies with our legal obligations in all operations, in accordance with the Santos Values.

Our corporate governance framework, including the roles and responsibilities of the Board and management, supports the decision-making, processes and culture underpinning the longer-term success of Santos.



#### **Business ethics**

GRI 2-26

Our ethical business practices are underpinned by the Santos Code of Conduct. This describes how we put our commitment to be a good corporate citizen into practice every day, and sets out the mandatory standards on how we interact with others, how we make decisions, the actions we take and the way in which we carry out our work.

Santos expects high standards of ethical conduct from our personnel and those who perform work for, or provide services to us. Santos is committed to holding all these stakeholders accountable to the Code of Conduct and its supporting procedures. We also seek to positively influence supplier behaviour, consistent with the standards established by the Code. This commitment has been further enhanced by the development of Responsible Sourcing Principles in 2023 which will be considered for implementation in 2024 across our global operations.

As a condition of employment or engagement at Santos, personnel must complete the Code of Conduct training on induction and annual refresher training. This training is available across Santos' operations and geographic locations including Alaska, Timor-Leste and Papua New Guinea.

#### Reportable misconduct

I GRI 2-25-2-26

To support high standards of ethical conduct, Santos is committed to creating and maintaining a working environment in which all Santos workers, contractors and other stakeholders are able to freely raise concerns regarding misconduct and are protected from reprisal.

Santos' Reporting Misconduct (Whistleblower) Procedure is available both internally on the Santos intranet and externally on the Santos website. This procedure supports stakeholders in making reports of suspected or actual misconduct or some other improper state of affairs in contravention of the Santos' Code of Conduct, including fraud, theft or corruption. Reports can be made directly to specified management personnel or any other Eligible Recipient, or via our external, confidential 24-hour Reporting Misconduct Hotline. Santos provides training to our personnel identified as eligible recipients under Australian whistleblower laws. In 2023, training was provided to all Santos Directors. Allegations of misconduct are assessed and investigated in accordance with Santos' internal investigation process.

Santos also has a Community and Landholder Complaints Procedure.

In 2023, a total of 43 whistleblower and misconduct reports were received and assessed for investigation, with the majority of the reports relating to harassment or policy/code violations.

- 11 of the reports were substantiated, resulting in disciplinary action being taken
- 16 of the 43 reports remained open at the end of 2023
- Four employees were terminated as a result of substantiated misconduct.



In 2023, Santos commenced a comprehensive review of the whistleblower investigations processes tools and training to ensure we continue to meet or exceed regulatory requirements and we have appropriate systems to manage investigations across our operations.

# Anti-corruption and sanctions compliance

I GRI 11.20 AND 205-1-205-3

Santos is committed to high standards of ethical business conduct across our operations. This is underpinned by our Code of Conduct and Anti-Corruption and Sanctions Compliance Procedure which prohibits our people, across our global activities, from engaging in any transaction that is in breach of sanctions laws or engaging in corrupt practices.

Santos' personnel are prohibited from giving, offering, promising, authorising, accepting or requesting a bribe; making a facilitation payment; paying or receiving a secret commission; giving, offering, promising, authorising or requesting improper gifts or entertainment; giving, offering, promising, authorising improper charitable or community sponsorships or donations or political contributions; and engaging in money laundering. These restrictions apply in all dealings with Santos' business partners, government bodies, government officials and other third parties.

Santos has a presence in additional countries through our operations and activities following the Oil Search merger. To ensure alignment of expectations across the company and compliance with expanded regulatory requirements:

 Santos' Code of Conduct and Anti-Corruption and Sanctions Compliance Procedure was reviewed in 2022, post merger  Similarly, post merger, we conducted a comprehensive review of our anti-corruption and sanctions compliance framework, to support implementation of an integrated program for Santos, with enhanced controls where appropriate.

Santos' anti-corruption and sanctions compliance program includes a number of prevention and detection activities in the supply chain and across our value chain. In 2023, Santos has:

- Continued to embed Compliance Catalyst, an external screening platform, to support enhanced counterparty due diligence screening across our operations for a broad range of counterparty risks including anti-corruption and sanctions.

  The system and enhanced screening requirements have been supported by extensive face-to-face and online training for the business.
- Continued screening and monitoring of potential sanctions exposures, supported by regular communications to key Santos personnel regarding developments
- Developed targeted anti-corruption and sanctions training for the Santos Board, to be delivered in 2024
- Monitored completion of annual mandatory refresher Code of Conduct training for all Santos personnel
- Developed an online compliance training module on anti-corruption and sanctions compliance for all Santos personnel for implementation in 2024

- Implemented the online Santos Compliance Management System, a governance risk and compliance tool provided by RSA Archer. As part of this, a new system for reporting of gifts and benefits and conflicts of interest has been implemented across Santos' operations, with live monitoring, enhanced recording and reporting functionality
- Reported regularly to Santos executive management and the Board Audit and Risk Committee.

During 2023, no violations of applicable anticorruption and sanctions laws were recorded in connection with Santos' operations.

#### **Regulatory compliance**

GRI 2-27

The regulatory environment in which we operate is complex and changing at pace. Across our global operations, Santos has a strong focus on compliance with regulatory obligations applicable to our business activities. Our compliance behaviours are underpinned by our Santos Values, ensuring we act ethically and do the right thing.

Santos uses a compliance management database to track compliance for tenures and environmental approvals. Compliance performance is monitored and reported regularly to Santos executive management and the Board Safety and Sustainability Committee.

#### **OUR APPROACH**

As part of Santos' broader approach to compliance, we have a comprehensive three-tiered management system known as the Santos Management System (SMS). The SMS applies to all our people and

sets out the minimum mandatory requirements regarding how we manage our business. Regulatory compliance is a key part of the SMS and there is continuous activity to implement effective compliance practices across our business.

Critical to this is the Board-approved Santos
Compliance Framework that provides a consistent
methodology for material regulatory obligations
across our business to be identified, managed,
reported and remediated should gaps exist.
This framework is aligned with international
compliance standard ISO 37301. This underpins
Santos' approach to the management of regulatory
compliance obligations across our operations.

The Board is responsible, with the assistance of the Audit and Risk Committee, for ensuring the implementation and effectiveness of the regulatory compliance management program. The Audit and Risk Committee assists the Board in performing its role in relation to risk management by reviewing, at least annually, the effectiveness of the Santos' Compliance Framework.

Implementation of the Compliance Framework and review of its effectiveness through ongoing assurance of regulatory compliance performance against the framework is led by the Group Compliance function and regular reports are provided to the Audit and Risk Committee on the implementation and assurance of the Compliance Framework. Implementation is currently supported by compliance reviews across several areas of the business. Reviews and assurance are conducted in accordance with an approved annual plan that is presented to the Board each year.

#### **OUR PERFORMANCE**

In 2023, Group Compliance led the implementation of RSA Archer, a digital governance risk and compliance tool, known internally as the Santos

Compliance Management System. Work is underway to migrate existing compliance management programs including regulatory obligations and associated controls and processes into this system. The system helps ensure regulatory compliance obligations are clear and understood, and appropriately assigned to accountable stakeholders and business areas. It allows all accountable obligation owners to manage and demonstrate compliance. Any actions to remedy compliance gaps can be managed and tracked through the system and it will support real-time, transparent compliance performance monitoring and reporting. In 2024, further work will be undertaken to implement real-time monitoring and alerts of regulatory reform through the system.

In 2023, the Australian Energy Regulator commenced Federal Court proceedings alleging that Santos did not adequately meet certain record keeping obligations in respect to our domestic gas trading activities, under the Australian National Gas Rules between 1 March and 8 June 2021. Santos issued a media release in respect of these proceedings. The release can be found here.

#### OUR ENGAGEMENT

To further support the work Santos is undertaking internally, we also joined the Corporate Business Integrity Council in 2023.

#### **Anti-competitive behaviour**

I GRI 11.19 AND 206-1

Across Santos' operations, there were no legal actions pending or completed during the reporting period regarding anti-competitive behaviour and violations of anti-trust and monopoly legislation in which Santos was, or has been, identified as a participant.

Material topic

# **Human rights**

GRI 2-23, 3-3, 11.12, 408-1, 409-1 AND 410-1

#### Our approach

As a company with global operations, Santos is committed to supporting and respecting the protection of internationally recognised human rights, as set out in the United Nations International Bill of Rights, and working to align with the UN Guiding Principles on Business and Human Rights and the Voluntary Principles for Security and Human Rights in our practices and procedures. This commitment is reflected in our Human Rights and Modern Slavery Policy.

#### **Potential impacts and risks**

There are an array of human rights obligations and stakeholder expectations covering civil and political rights, social economic and cultural rights and core labour rights. Given the nature and location of our operations, key human rights risk areas for Santos are:

- Modern slavery and forced labour in our supply chain
- Indigenous rights, including engagement and protection of cultural heritage
- Security related human rights impacts through the engagement of public and private sector security providers for our operations
- Employment and equal opportunity, including discrimination, harassment and bullying.

#### **Our framework**

The human rights framework we have in place to support our policy commitments, and the role of governments in protecting human rights, guides the processes and practices we develop and actions we take to address the human rights risks, in these areas across our operations.

#### **Our actions and performance**

GRI 410-1

In respect to our human rights processes and practices generally, in 2023 we have (in addition to those outlined in the anti-corruption and sanctions compliance section):

- Monitored completion of annual mandatory refresher Code of Conduct training (which includes human rights and modern slavery training) for all Santos personnel
- Developed an online, stand-alone human rights and modern slavery compliance training module for all Santos personnel for implementation in 2024
- Commenced a comprehensive review of the whistleblower and investigations processes, tools and training to ensure we continue to meet or exceed regulatory requirements and progress against the grievance requirements, outlined in the UN Guiding Principles on Business and Human Rights

 Continued the meetings of the Human Rights and Modern Slavery Working Group to ensure oversight of potential human rights issues and actions being taken across our operations.

#### Our engagement

Given increasing government and stakeholder expectations in respect of modern slavery and Indigenous rights, and external developments in respect of each in 2023, our practices in these areas are the key focus of this report.

#### MODERN SLAVERY

Santos releases a detailed annual Modern Slavery Statement that can be found <u>here</u>.

Santos' Modern Slavery Statement received an A grade from Monash University's 'Modern Slavery Disclosure Quality Ratings – ASX 100 Companies Update 2022'. This rating was consistent with the rating for Santos' Modern Slavery Statement for 2021.

#### INDIGENOUS ENGAGEMENT

As stated in our Human Rights and Modern Slavery Policy, we support our human rights position by committing to actions in respect of local and Indigenous engagement. Specifically, we seek to engage with communities in which we operate to understand potential and actual human rights

**Corporate Governance** 

People and culture

Economic sustainability

**Appendices** 

37

impacts of our activities and to prevent, mitigate or redress those impacts as appropriate, and to acknowledge and respect the cultural heritage of Indigenous peoples impacted by our operations.

A human rights issue of concern for Santos in 2023 were the alleged breaches of human rights of Tiwi Island, Larrakia and Gomeroi people arising from Santos' Barossa Gas Project, Darwin LNG Life Extension Project and Narrabri Gas Project. These allegations were raised in a letter some of our investors and financiers received from Equity Generation Lawyers on behalf of up to nine individuals.

On 25 May 2023, Santos published a response on our website categorically rejecting the allegations of human rights breaches in their entirety and reserving our rights in relation to this matter. The release can found here.

Importantly, Santos recognises the role of governments, across our operations, in protecting human rights in this area and our policies and practices reflect this. In Australia, federal, state and territory governments have in place legal frameworks, which Santos follows, to allow Indigenous people to actively participate in the assessment processes for resources projects that may affect them or their territories.

As such, Santos' processes are in line with required laws and regulations, including for the Barossa, Darwin LNG Life Extension and Narrabri projects. These processes involve consultation with Indigenous people and other stakeholders, including consideration of their feedback in finalising various project plans

Important topic

### **Conflict, security** and geopolitics

#### **Risk assessment**

We complete security risk assessments in accordance with Santos standards and procedures

#### Interactions with public security

Santos has a strong relationship with state and federal law enforcement across Australia including the Department of Home Affairs.

Law enforcement agencies supporting Santos with safety and security across the nation, ensure two-way communication and collaboration. Santos sites declared as Major Hazard Facilities regularly consult with state police and are audited by state work health and safety regulators.

Assets and locations that are regulated by the Maritime and Offshore Facilities Security Act (2003) facilitate collaboration between ports and ship industry partners, law enforcement and other government agencies. Additionally, assets regulated by the Security of Critical Infrastructure Act (2018) require close cooperation with state and federal police and government agencies.

Santos works closely with local Papua New Guinea law enforcement, collaborating and cooperating to ensure the safety and security of our operations.

At the present time, as we are in the exploration and development phase of our work in Alaska, we're not currently regulated by Agencies covering Maritime Transportation or Offshore Facility security-type issues.

Once we start producing and transporting oil, we will be complying with relevant regulations under the following agencies:

- U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration
- U.S. Department of Homeland Security (critical infrastructure and protecting the marine environment relating to tank vessels carrying oil in bulk).

Currently, Santos does contract with a company to provide on-lease security duties and interacts with the security teams on adjacent leases, as well as the local Alaskan community of Nuigsut.

#### Interactions with private security

Engaged security providers are required to adhere to:

- Santos Code of Conduct
- Santos Values
- Modern Slavery and Human Rights obligations
- Voluntary Principles on Security and Human Rights.

**Monitoring of security providers** 

To ensure security providers fulfil their obligation to provide security in a manner consistent with the rules of conduct outlined by Santos, we require:

- Regular reporting
- On-site supervision
- Key Performance Indicators
- Training in human rights is provided to local security personnel at each asset.

#### Grievance mechanisms covering security forces

In line with the Voluntary Principles on Security and Human Rights (VPSHR) reporting recommendations, there are a number of methods to raise grievances including:

- Santos Whistleblower Policy
- · Santos website.

#### Assessment and monitoring of security contractors

Santos has a structured approach to managing security forces including:

- Monthly reporting
- KPI reports
- Local site assessment of services provided
- Complaints investigation.

Important topic

### **Data and cyber security**

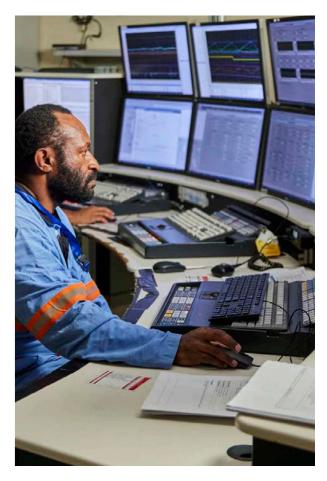
Santos is obligated to comply with the Australian Government's Security of Critical Infrastructure Act (2018) and related amendments for Australian assets, and similar international regulations for non-Australian assets. To comply with these obligations Santos is enacting a robust cyber risk management framework based on the Australian Energy Sector Cyber Security Framework (AESCSF). The AESCSF leverages the National Institute of Standards and Technology Cyber Security Framework (NIST) which guides Santos' overall Risk Management Framework to manage cyber security threats.

The AESCSF framework dictates both preventative and responsive controls to protect information held by Santos, including Personal Identifiable Information (PII). All systems (including those holding PII) are protected by leading industry-standard cyber security products and practices, with no notifiable or material cyber or information breaches occurring in the last 12 months.

Santos is a participant - and contributor - to the government's Critical Infrastructure Information Exchange forum, and meets regularly with regulatory officials, law enforcement and peers to exchange intelligence on emerging threats and trends.

Assessment of cyber security posture and controls is performed throughout the year, with annual benchmarking of performance through both internal and external audits, penetration testing and other evaluations.

Santos adheres to the Australian *Privacy Act (1988)* and similar international legislation in locations where we operate. Privacy policies are available on the Santos website, and a register of Personal Identifiable Information is kept within the company. Please refer to santos.com/privacy/ for further information on how this is protected.



(LOCI) RATE<sup>3</sup>

LOSS OF CONTAINMENT INCIDENT

■ LOCI Tier 1 and 2 frequency rate — Available capacity<sup>4</sup>

MODERATE HARM RATE<sup>5</sup>

Employee Contractor

### Sustainability pillar

# HEALTH AND SAFETY

#### 2023 performance summary

- Zero severe harm injuries and two moderate harm injuries
- Reduction in lost time injury rate and moderate harm injury rate
- Reduction in the number of high potential events compared to 2022
- Over 10,000 Life Saving Rules verifications completed, 150 per cent more than 2022
- Launch of new and revitalised programs STRIVE (behavioural-based safety) and frontline safety leadership program
- Expanded health and wellbeing offerings.

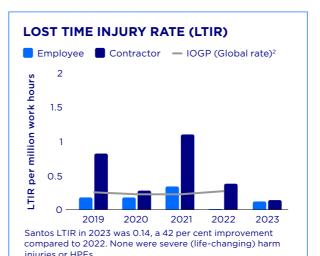
#### MATERIAL TOPICS

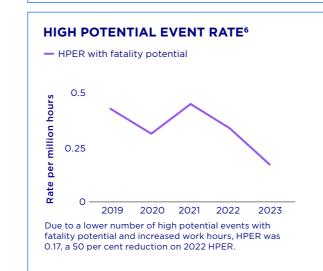
Health and safety

Asset integrity and critical incident management

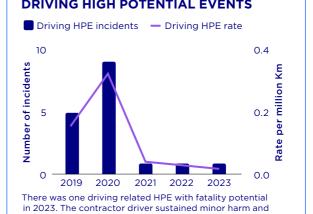


# 2023 performance data<sup>1</sup>













63 per cent reduction in moderate harm rate compared

to 2022. This is the lowest rate since the measure was

As part of Santos Health and Wellbeing strategy, GP services were introduced with a purpose-built clinic in the Adelaide office in May 2023. The program will be expanded in 2024 to include new GP clinics in Perth and Brisbane.

- 1 Unless specifically detailed, all metrics presented are gross operated figures.
- 2 2023 IOGP data not available.
- 3 LOCI is a sub-set of LOPC, where the unplanned or uncontrolled release of hydrocarbon from primary containment has also breached secondary containment or risk is people/environment.
- 4 Refer to glossary for definition of available capacity.
- 5 Moderate harm rate is the number of actual moderate harm injuries and above per million work hours.
- 6 High potential event (HPE) is any incident or near miss that could have realistically resulted in severe harm or worse (safety) or moderate environmental harm or worse.

#### Material topic

# **Health and safety**

GRI 3-3, 11.9 AND 403-1-403-9

#### Our approach

Santos is steadfast in pursuing safety excellence and is committed to conducting business activities in a manner that ensures all employees and contractors go home in a healthy and safe state. Our proactive and systematic approach to health and safety is embedded in the Santos Management System (SMS), encompassing policies, operating standards, processes and procedures.

#### **Potential impacts and risks**

Our system outlines essential health and safety requirements, including hazard identification, risk management, incident investigation, occupational health and hygiene, wellbeing, injury management, and fatal risk management (Life Saving Rule Program). The goal of the health and safety aspects of the SMS is to continuously improve safety culture. performance and outcomes.

#### Safety culture and our engagement

Santos is committed to fostering a workplace that exemplifies enhanced safety, heightened efficiency, and a culture where safety is non-negotiable. This commitment is visibly demonstrated at the most senior levels of the organisation, for example, through Board and Executive site visits, including health and safety discussions with staff and

contractors, and our annual Stand Together for Safety event lead by Executive and senior leaders.

Santos has delivered a range of impactful initiatives in 2023, including our new company-wide behaviourbased safety program, STRIVE, Successful elements from existing programs within our business were brought together launching one consistent program based on a foundation of care and curiosity, and encouraging a collective effort to actively seek opportunities for quality safety conversations, reinforcing positive behaviours and identifying ways to work more safely. Central to this initiative are our deeply ingrained values of Always Safe and the associated behaviours that guide our actions.

Santos recognises frontline leaders are pivotal to fostering a generative safety culture. Santos recently launched a frontline safety leadership training program, a two-day, face-to-face workshop framed around the Leader Expert And Professional (LEAP) value-based behavioural framework and Always Safe values. The program builds off existing leadership programs to enhance safety knowledge and safety leadership skills to effectively and consistently lead safety in our field operations.

#### Our actions and performance

Several health and safety performance indicators improved through 2023, including Lost Time Injury Rate (LTIR), high potential event rate and Life Saving Rules verifications. Most pleasingly, we had no severe harm injuries and our moderate harm rate (with moderate harm injuries being those injuries requiring

weeks to months to recover) significantly decreased, demonstrating our continued approach to better identifying and managing hazards and risks and to focus on eliminating fatal and lifechanging injuries. Santos continues to test and focus our High Potential Event (HPE) investigations and implementation of critical controls to systematically reduce the likelihood of incident recurrence. Our focus on corrective actions undergoes thorough review to prioritise hierarchy of controls, with a strong emphasis on implementing higher order measures such as elimination, substitution and engineering controls, which are more effective.

Notably in 2022, the oil and gas industry observed a 71 per cent increase in global fatalities, most may have been prevented if Life Saving Rules were applied. The Life Saving Rules outline the critical controls related to the industry's most common fatal risks and have been proven through global industry research and investigations from International Association of Oil and Gas Producers (IOGP) to prevent work-related fatalities. Santos proactively leveraged these industry insights and internal health and safety trends to influence the theme of our annual Stand Together for Safety event in 2023 focused on Life Saving Rules. The chosen theme centred on the significance of life-saving rules, reinforcing their importance, and encouraging collective commitment.

Driving safety is a significant ongoing risk for our field operations. Santos employees and contractors drove over 46 million kilometres combined. during 2023. Unfortunately, several contractor

vehicle accidents occurred in 2023, thankfully none resulting in serious injury. Taking a proactive stance. Santos held a dedicated Stand Down for Driving Safety event, emphasising safe driving practices. Additionally, Santos actively engaged with our contractors to take an industry-leading position going beyond industry standard in-vehicle monitoring systems, and requiring in-vehicle fatigue and distraction detection and alert systems be installed in contractor vehicles.

Santos has continued to invest in the health and wellbeing of our employees and has made significant inclusions to general health and wellbeing offerings in 2023:

- The Healthier Me was expanded from Healthier Bodies, Minds, Relationships and Places, to also include Healthier Finances. Recognising that financial security can often be a source of anxiety, Healthier Finances provide resources and support to assist with budgeting, planning for retirement and investment
- To provide additional health and wellbeing resources, a new personalised online health and wellbeing portal. Healthier Me. was launched to enhance employee's ability to thrive at Santos. Following an online health and wellbeing assessment, the Healthier Me portal provides personalised and curated content, connections and support specific to the individual. Following a successful trial of GP services in Adelaide, this offering will be expanded to Perth and Brisbane to provide additional clinic and telehealth services to employees.

Material topic

# **Asset integrity and critical** incident management

I GRI 3-3. 11.8 AND 306-3

#### Our approach

Santos aspires to be the safest energy company where we have a presence by preventing harm to people and environment. Asset Integrity, Process Safety, Life Saving Rules, and incident and crisis management are a core part of the prevention approach.

The Santos Management System (SMS) provides the standards, processes and governance approach to support consistent delivery of operational excellence across our regional assets. Operations teams are required to comply with the requirements of the management system through the Operations Excellence Framework, Process Safety and Asset Integrity Management are core elements of the framework.

A failure to manage asset integrity and process safety can result in major accident or environmental events. Using our improved bow tie safety assessment methodology, multiple independent barriers are identified and implemented to prevent a loss of containment and mitigate the escalation potential should it occur. Barriers are added so that asset integrity and process safety risks are managed by So Far As Is Reasonable Practicable (SFAIRP).

A three-level assurance framework has been implemented to verify that critical process safety controls and operational excellence recommendations are embedded in regards to the intent of the SMS. The first level involves regular frontline leadership assurance, the second involves regional line management and the third layer involves an independent corporate functional audit. Learnings from these assurance events drive improvement actions within the region as well as across the Santos businesses. Management Systems are also continuously improved to enable the workforce.

#### **Potential impacts and risks**

Potential impacts including harm to people, environment and assets can arise when large, unplanned loss of control events occur.

Sustained discipline in Operations Excellence ensures risks are managed through proactive identification of hazards and robust implementation of controls.

Emergent risks from weak controls are addressed through an effective governance and assurance framework.

Environment

#### Our actions and performance

Performance is measured using a variety of lead and lag indications, consistent with the recommended practises within API RP 754 (Process Safety Performance Indicators for the Refining and Petrochemical Industries). Tier 1 and 2 loss of containment events are reported and investigated to identify root causes. In 2023, most causes of loss of containment related to equipment strategy management in our onshore assets. Enhanced integrity inspection and maintenance plans have since been implemented (see LOCI chart on page 39). Tier 3 and Tier 4 lead indicators such as challenges to safety systems (safety critical barrier defeats or compromises) and other operational discipline-related key performance indicators are reviewed through a governance framework that extends from executive to front-line operations. Trends identified have driven capability improvement actions in operational risk management, technical management of change, and work authorisation.

During 2023, we continued to focus on the integration of merged Papua New Guinea and Alaskan assets into the Santos Management System (SMS), while assuring ongoing application and improvement within existing assets. Papua New Guinea assets have been progressively integrated with priority given to process safety operational risk management, investigating and learning from incidents, and management of change standards. Santos Permit to Work standards are expected to

be in place in Papua New Guinea within the first half of 2024. Alaska has implemented the Santos standards for Operational Readiness, ensuring that process safety and asset integrity is considered in design, construction and in the handover processes to live production operations.

Positive results were achieved with formal regulatory processes for major hazard facilities. The Government of South Australia WorkSafe SA undertook an MHF Licence Renewal Verification Audit for the Santos operated Port Bonython production facility, granting it an unconditional five-vear licence renewal.

Varanus Island updated their MHF Safety Case incorporating Santos bow tie methodology which provides enhanced line of sight to the health of the barriers implemented to prevent any major process safety incident. The Government of Western Australia Department of Mines, Industry Regulation and Safety accepted this five-yearly revision of Varanus Island's Safety Case.

This methodology has also been extended to all upstream onshore non-MHF facilities where previously a simplified method was used. This has enabled improved risk reduction and early identification of emerging risks. This work is expected to continue throughout 2024.

#### Our engagement

Significant improvements in the integration of Operations Excellence and Santos Engineering standards and practices have been achieved through Santos-wide communities of practice; exemplified by industry best process safety barrier management at Port Bonython. This has been recognised and acknowledged by Safework SA in their audit of the facility in 2023.

Santos has focused on deeper frontline operations engagement in identifying and understanding integrity and process safety risks, with field operations personnel directly contributing to bow tie-based risk assessments and validations to better inform asset integrity management plans and improvements in facility design and operations.

External stakeholder engagement is critical to Santos maintaining high standards of asset integrity and process safety. This external engagement and collaboration is achieved through Santos' active participation in Safer Together and the IChemE Safety Centre, both of which Santos is a founding member. Through these, Santos contributes to a wider industry community of process safety knowledge, lessons sharing through incident review panels, and supporting publications on process safety to drive broader industry learning and improvement.

#### **Performance highlight**

### South Australian **Premier's Energy** and Mining Awards

In 2023, Santos was well-represented with finalists, two commendations and one winner at the South Australian Premier's Energy and Mining Awards.

#### Winner - Inclusion and Wellbeing - Stephanie Tyszta, Cooper Basin Area Manager

Stephanie won the Inclusion and Wellbeing category at the SA Premier's Energy and Mining Awards building on her win at the Santos Directors' EHSS Awards earlier in 2023 as the Safety Leader of the Year. Stephanie is a powerful advocate for change. She has shown great resilience and safety leadership by actively driving to educate field and office personnel on the unconscious biases that can exist and the negative impact they can have on mental health. Stephanie's leadership and advocacy in the inclusion and wellbeing space is considered best practice by Santos, as we learn to navigate and integrate psychosocial risk management into our health and safety management.

#### Commendation - Health and Safety -**Development Execution Team, Cooper Basin**

Our Development Execution Team won a commended award in the Health and Safety category for their Skin Patrol Health and Hydration Check project. This team works in remote areas in Moomba and rural Queensland and is consistently exposed to extreme UV and temperatures throughout the Australian summer. This team developed and implemented a skin check program for employees and contractors and an education and monitoring campaign to build better hydration habits. The program has since expanded with additional clinics now scheduled.

#### **Commendation - Innovation and Collaboration** - SES Engineering and Port Bonython Team

The SES Engineering and Port Bonython Team, working with contractor NDE, received a commended award in the Innovation and Collaboration category for a project to detect corrosion anomalies early, avoiding costly unplanned stoppages and environmental impacts, and enabling predictive maintenance and replacement activity to be planned with confidence. This is a great example of Santos working with its contractors to improve performance and reliability through innovation.



### Sustainability pillar

# ENVIRONMENT

#### 2023 performance summary

- Mutineer, Exeter, Finucane, Fletcher fields floating assets safely and successfully removed including 705 tonnes of equipment
- 40 per cent of produced water beneficially reused including 88 per cent of that produced as part of CSG operations
- Through the Great Artesian Basin Industry Partnership Program, 3,005ML/year of groundwater is now being saved
- Executed the waste management procurement strategy to maximise recycling and waste.

#### MATERIAL TOPICS

Decommissioning and rehabilitation

#### SIGNIFICANT TOPICS

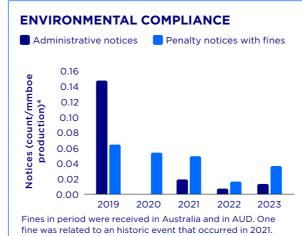
Biodiversity

#### **IMPORTANT TOPICS**

Waste



# 2023 performance data<sup>1</sup>

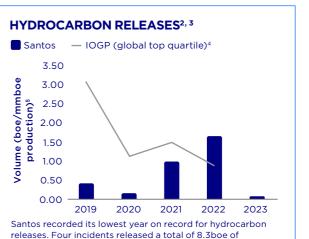


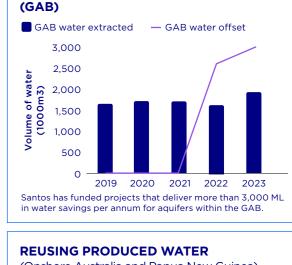




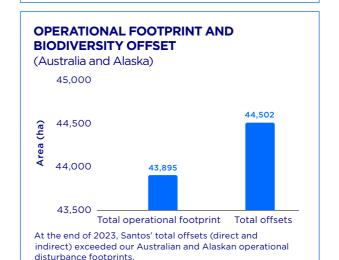
recording and reported to GRI Standards. In addition, we implemented standardisation of waste conversion factors. Data excludes offices.

- 2 Releases to the environment greater than one barrel.
- 3 2023 IOGP data not available.



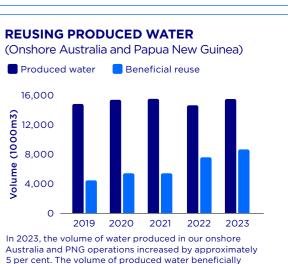


**GROUNDWATER WITHDRAWN AND OFFSET FROM GREAT ARTESIAN BASIN** 



hydrocarbon. As of 2023, Santos has uplifted its benchmark

to reflect the top quartile of global IOGP spills data.



reused increased by approximately 14 per cent from 2022.

- 1 Unless specifically detailed, all metrics presented are gross operated figures. 4 Santos calculates the top quartile figure based on published IOGP figures, which includes spills >1bbl. The calculation utilises standardised conversion factors to align with Santos reported units. Previously hydrocarbon release rate data has been benchmarked against the IOGP global average, as such the IOGP figures presented here are not directly comparable to previously used information.
  - 5 Production figures presented are Santos gross operated production amounts.

Corporate Governance

People and culture

Economic sustainability

**Appendices** 

Material topic

## **Decommissioning and rehabilitation**

I GRI 3-3 AND 11.7

#### Our approach

Decommissioning is the final part of the asset life cycle. Standards and requirements are dictated by relevant regulations and the Santos Management System. Planning for decommissioning starts early in the asset development life cycle at the project design phase, where development concepts and front-end engineering consider and optimise how and when an asset will be retired, even before it is built. During operations, decommissioning strategies are regularly reviewed, to incorporate appropriate best practices and update financial restoration provisions. Several years before cessation of production, planning commences to determine whether an asset will be repurposed or retired.

Planning for decommissioning is similar to any other project, where decommissioning strategies, concepts and methodologies are evaluated. and a preferred approach selected. Detailed engineering, regulatory approvals and procurement follows with a final investment decision before commencing decommissioning. Upon completion of decommissioning an application to relinquish the permit area will be submitted to the relevant regulator.

Santos primarily uses a progressive decommissioning approach with assets removed in stages, in a disciplined manner over time, as opposed to large scale short duration campaigns. We believe this

improves safety, local supply chain capability development and participation and organisational learning, resulting in better long-term outcomes for all stakeholders. For offshore assets, this involves the staged plugging of wells, removal of floating or fixed structures and then removal of subsea equipment such as production manifolds and flowlines, until the production area is cleared and permits relinquished. Santos currently has a number of decommissioning projects underway including at the Mutineer, Exeter, Fletcher, Finucane (MEFF) fields located 150-160km north of Dampier and the Harriet Joint Venture fields around Varanus Island. Floating assets have been successfully removed from the MEFF field in 2022-2023. Wells are being plugged by a semisubmersible drilling rig in 2024 and subsea assets are set to be removed in 2025. Final preparations are underway for removal of the Campbell platform early in 2024 and Harriet Alpha and Simpson offshore assets in 2025. Several Harriet and Simpson field wells are being plugged by a Jack Up drilling rig in 2024. The remainder of the facilities will be removed progressively in consultation with regulators, through to the late 2020s.

For onshore assets the operating model is different. Wells and facilities are installed every year to sustain production. The decommissioning process is aligned with this, continuously removing wells and pipelines that are no longer in use to optimise the work required at end of field life, and resulting in better environmental outcomes. This model is used in the Cooper Basin and upstream Coal Seam Gas (CSG) Queensland.



#### Potential impacts and risk

In 2023, the final MEFF floating assets were removed safely and successfully. Materials were returned to local ports for final dismantling. transport and recycling, reuse or landfill. These processes were managed in collaboration with multiple local businesses.

Planning for future campaigns in 2024 and beyond was a major feature of the decommissioning work done in 2023, with several opportunities and challenges being identified:

- Procurement of suitable offshore heavy lift vessels: Scheduled construction, maintenance and decommissioning activities across offshore operators have resulted in high demand for offshore heavy lift capability. Limited local supply has resulted in the need for mobilisation of such vessels from overseas
- Procurement of large-scale waste management and recycling capability: The decommissioning projects are expected to recover large quantities of subsea flowlines and umbilicals, some of which contain plastics. Capabilities to strip and separate plastics from metal products and break them down sufficiently for local or international recycling are limited in Australia
- Local content: Decommissioning provides an excellent opportunity for local content and Indigenous participation. In 2023, benefits were realised through marine operations and onshore demolition and steel recycling in Western Australia

#### Our actions and performance

Planning is key to safe and efficient decommissioning performance. Starting at the design process, well ahead of cessation of production, provides the opportunity to investigate and assess new technologies and methodologies, learn from other areas with mature decommissioning industries (eg North America and North Sea) and develop supply chain capacity.

Technology has been used proactively in our decommissioning program to date:

- On improving safety, risk identification and operational efficiencies, digital twins of offshore facilities have enabled lifting and demolition planning to occur without the need for personnel to be offshore. Local simulation centres have been used to practice lifting and transfer activities, optimising procedures ahead of mobilisation to the field, improving safety, risk identification, and management and operational efficiency
- Bismuth plugs have been used to improve isolation of potentially hydrocarbon-bearing zones. This has resulted in improved isolation and operational efficiencies over conventional cement isolation plugs
- Dual string casing and cement inspection and assessment tools have been used that allow us to evaluate the extent and quality of cement bonds to formation through multiple strings of casing. Use of this technology has greatly reduced the need for casing milling operations, reducing risk and improving efficiency.

Early engagement with contractors in the supply chain has been key to establishing local capability and encouraging investment. Waste management and recycling are both challenges and opportunities in Australia, given the volume of materials that are removed during decommissioning.



#### Our engagement

Santos works with joint venture partners, regulators, contractors and industry bodies to learn and share best practice. Santos is an active participant in the Australian Energy Producers decommissioning sub-committee and The Centre for Oil and Gas Decommissioning Australia (CODA). Through these networks, Santos contributes to creating opportunities for innovation and collaboration across the industry for the development of local capability, in support of safe and efficient decommissioning activities.

Santos works closely with both federal and state regulators. Frequent engagement provides the opportunity to clarify regulator's expectations and plan submissions such as safety cases and environmental plans. Regular consultation with a wide range of stakeholders occurs as part of the preparation of environmental and ongoing execution plans.

Expert contractors are used throughout the planning and execution process. Engineering inspection, removal, demolition, transport and waste management are all key elements of the supply chain. Early communication of work programs and competitive tendering occurs to encourage participation, innovation and competition.

Santos has a large offshore and onshore operational footprint in Australia and years of experience of successful decommissioning activity. Learnings are regularly shared with joint venture partners to improve safety and productivity outcomes. Learnings from partners activities are also regularly incorporated in Santos projects.



#### **Performance highlight**

### Mutineer, **Exeter, Finucane,** Fletcher (MEFF)

The Mutineer-Exeter fields are located 150-160km north of Dampier, off the Western Australian coast, in 130 - 160m water depth and commenced oil production in 2005. The Fletcher-Finucane fields were tied back via the Mutineer manifold and started production in 2013. Production ceased in 2018 and Santos has since been progressively decommissioning the fields, with the objective of completing offshore decommissioning by the end of 2025. In 2023, a further 705t of equipment was removed, consisting of a disconnectable turret mooring spider buoy and two mid-water arches that were used to connect the subsea production system to the floating production storage and off loading. After dismantling this equipment, a total of 674t steel was recycled.

#### OVERARCHING PROCESS' SCHEMATIC APPLYING TO ALL ASSET DECOMMISSIONING



Significant topic

### Water

Santos manages waterrelated risks and has identified opportunities to maximise reuse of water.

#### Water management

Santos manages produced water responsibly and only releases water to the environment in accordance with strict operating conditions that minimise the potential risk of impact to an acceptable level. Such releases include water that is reused in irrigation projects or discharged to water courses such as the Dawson River. In offshore Australia and Papua New Guinea, almost all produced water is reinjected into depleted oil and gas reservoirs, returning the produced water into a similar subsurface environment it was extracted from.

#### Reuse of water

In our onshore Australian operations, our aim is to maximise the reuse of produced water generated. Maximising reuse of produced water minimises dependency on other water sources, avoids residual wastewater that needs to be managed and reduces costs across the full operating life cycle.

- Of the 15,296 ML of produced water generated in 2023 across Santos' Australian onshore operations 8.793 ML, or 57 per cent. was beneficially reused
- Of the 15.296 ML of produced water generated onshore in 2023 (14,572 ML in 2022), ~63 per cent was generated in coal seam gas operations in Queensland
- Overall in 2023. Santos reused 88 per cent of produced water generated in onshore coal seam gas operations, compared to ~59 per cent in 2022.

#### **Regulatory compliance**

In Australia, Santos extracts and manages water in accordance with licences issued by regulatory authorities who manage access to water resources in accordance with sustainable water management policies and practices.

Across Australian onshore operations, we are only authorised to release produced waters to surface waters at three locations in Queensland; at Jackson and Naccowlah in the Cooper Basin and to the Dawson River in the Bowen Basin. In 2023, a total of 1.764 ML of water was released (compared to 2.701 ML in 2022). Santos monitors these releases in accordance with approved environmental monitoring plans and did not record any exceedances over authorised water quality or quantity limits.

#### Management of impacts and risks

Santos has not recorded any impact to groundwater dependent ecosystems (such as springs and watercourse springs) as a result of extraction of produced water. Santos is actively managing the potential for future impact to springs and other groundwater dependent ecosystems to ensure no impact will occur in the future (OGIA 2021, and Santos 2022).

The use of hydraulic stimulation techniques in onshore Australian operations pose a low risk of impact to groundwater resources. This is due to the inherent properties of the subsurface geology, the nature of the additives used and implementation of well integrity monitoring programs.

#### Water partnership and initiative

At the end of 2023. Santos has funded Great Artesian Basin Industry Partnership Program (GABIPP) projects that have cumulatively achieved more than 3,000 ML/year water savings for aquifers in the Great Artesian Basin.

Significant topic

### **Biodiversity**

As an energy company, Santos works across a broad range of terrestrial and marine environments from tropical to arid biomes. Typically, these biomes have unique and dynamic biodiversity. To operate sustainably, Santos complies with a suite of highly complex regulatory conditions to demonstrate our environmental responsibilities and obligations.

Santos is actively protecting ecosystems in the Morobe province through the Markham Valley (Afforestation/Reforestation) project in Papua New Guinea. This represents an opportunity to restore an area that was highly disturbed and used as a grassland in the past.

Initial field surveys identified 89 terrestrial vertebrate fauna species and discussions with locals helped to identify at least 10 mammal species, eight bird species and five reptile species whose habitat is likely to be restored through this project. Anabat detectors identified the presence of eight microbat species. Fish species recorded in this area are characteristic of lowland rivers and tributaries in northern Papua New Guinea. Fish species richness (16 species in total) is within the range of that recorded from previous surveys in the Lower Watut and Markham Rivers (11 to 21 species).

Santos has worked with local landholders since 2016 planting selected high-density species native to Papua New Guinea in this degraded ecosystem. At present the project has planted 4,000 hectares of land with an ambition to plant 12.000 hectares by 2028.

Some of the project objectives are to:

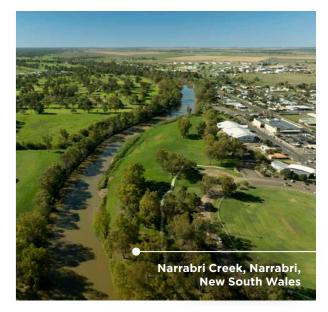
- · Protect and create habitat and increase biodiversity
- Support impacted communities to achieve social and economic development
- Sequester carbon from the atmosphere.

#### **Habitats protected**

At Santos we acknowledge that there are potential biodiversity impacts from our developments and operations. To minimise our impacts, we implement structured development processes that follow an avoidance hierarchy (avoid, minimise, offset). We work collaboratively with our landholders to ensure the best biodiversity outcomes are achieved. Where we cannot avoid a biodiversity impact, we offset these impacts by protecting larger areas with similar biodiversity values. Santos continues to engage with interested landholders and Indigenous groups to develop additional offset sites and increase the protection status of more areas with key biodiversity values.

In addition, Santos invests in indirect offsets such as funding koala research in the Pilliga State Forest. This project is examining the extent of koala populations in the Pilliga region, comparing current survey data with historical records to highlight key habitat preferences and mapping behavioural changes associated with changes in carrying capacity within the Pilliga State Forest and surrounding region. The resulting habitat preference maps will be used by Santos to inform the avoidance hierarchy during development planning.

Santos continues to fund long-term monitoring programs at several production facilities to ensure sites are not causing harm to the surrounding biodiversity. At the Darwin LNG facility, Santos has monitored the regeneration of mangroves in the surrounding intertidal areas for over 20 years. This program, run by independent experts in collaboration with the Larrakia Land and Sea Rangers, has demonstrated the ability of mangrove communities to regenerate around a major facility with no impacts reported above National Standards. Recently, the monitoring incorporated drone imagery to map active plant growth in the intertidal areas, demonstrating the increasing complexity of biodiversity within the mangrove community.



Santos Sustainability and Climate Report 2023

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

At the Port Bonython processing plant in the Upper Spencer Gulf, South Australia, Santos has conducted a marine water monitoring program for over 30 years. The results continue to demonstrate that this facility has had no adverse effect on adjacent marine communities including the Giant Australian Cuttlefish populations aggregating annually at the spawning grounds at nearby Point Lowly and Stony Point.

Where appropriate, Santos invests in biodiversity-sensitive development. Santos' Pikka Project, located on the Alaskan North Slope, near the Colville River, is home to large herds of caribou that migrate north to feed on the plentiful tundra plains in the summer, before returning south to the boreal forests in the winter. Santos has committed to build elevated pipelines that allow caribou to move across the tundra plains.

Important topic

### Air

Please see data and content in the Climate Pillar.

Important topic

#### Waste

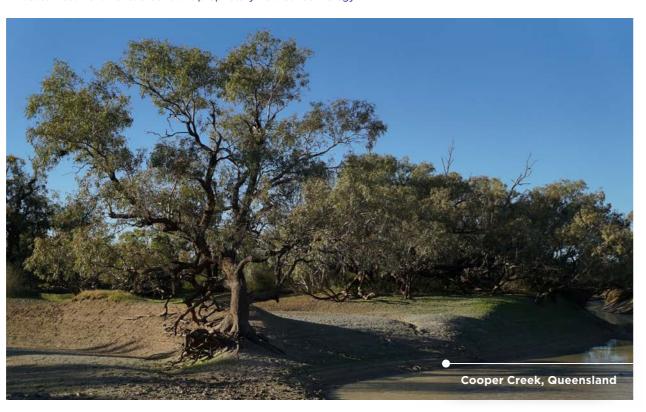
Waste management continues to be a focus throughout all operations via the implementation of long-term strategies that focus on the life cycle management of waste. As recycling and waste recovery programs advance, Santos' actions have focused on diverting waste from landfill.

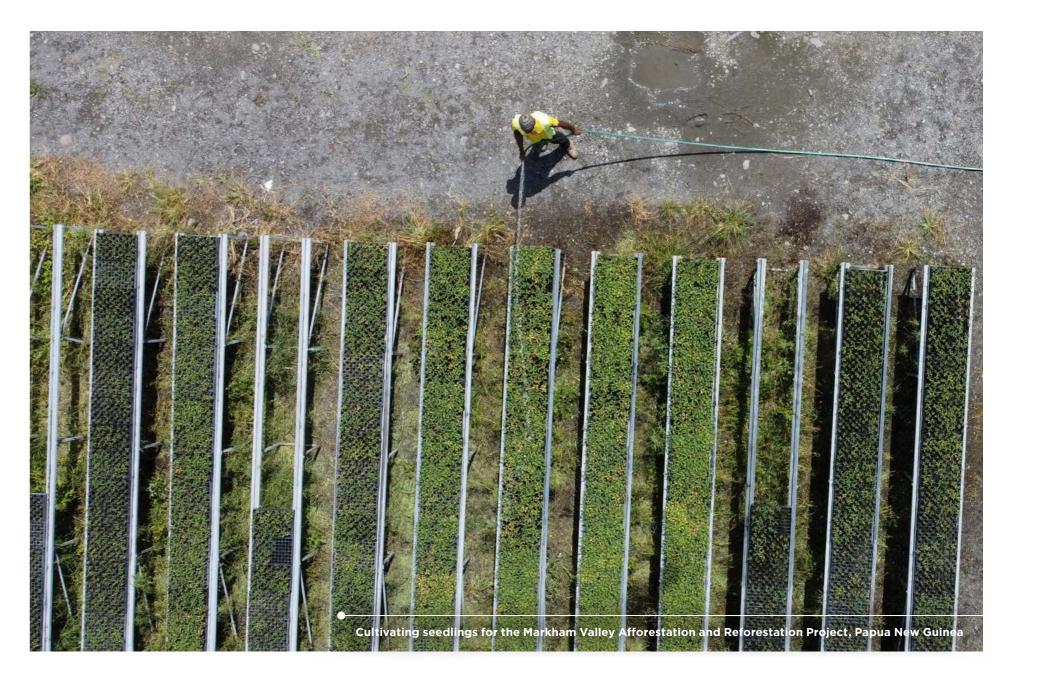
Routine application of the waste hierarchy has been key to the improvement of waste management at each asset. In 2023, Santos executed the waste management procurement strategy, engaging Cleanaway Waste Management as our key waste management service provider in the Cooper Basin and Eastern Queensland, with key performance indicators to maximise recycling and waste diversion. In 2023, of the total waste generated in Australia, 90 per cent was Diverted from Disposal (70 per cent in 2022). Additionally, for waste considered hazardous,

approximately 93 per cent was Diverted from Disposal globally.

Improving waste management in Papua New Guinea is a main area of focus for 2024, where the bringing together of waste is reducing avoidable incineration. Key to this is a continuing focus on waste avoidance including reduction of packaging, further source segregation and, on-site treatment and reuse, including enhanced biodegradation of organics in the HotRot.<sup>6</sup>

6 Global Composting Solutions Ltd (HotRot) is a New Zealand-based business providing waste treatment solutions for customers with complex organic waste streams. HotRot designs, builds, installs and commissions integrated Organic Waste Treatment Plants around the proprietary HotRot Technology.





### Sustainability pillar

# PEOPLE AND CULTURE

#### 2023 performance summary

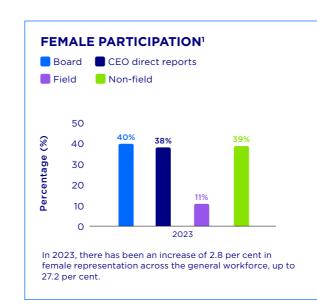
- Female representation increased to:
- 39.2 per cent of our non-field based employees
- 43.0 per cent in the three-year graduate program
- 38.9 per cent of new hires.
- Indigenous representation increased to:
- 2.1 per cent of total workforce, which includes an increase of 17 permanent employees
- 22.4 per cent of the apprenticeship program.
- Papua New Guinea citizen employment increased to 89.9 per cent, including an increase of 18.1 per cent in Leading Teams roles
- Piloted then implemented a compressed nine-day fortnight across our Australian office locations under the banner of Flex Friday. Pilots are also underway in Papua New Guinea and Timor-Leste
- Approximately \$950,000 paid in childcare subsidy payments to working parents in Australia
- Launched a new Employee Value Proposition
- Introduced on-site GP and medical consultations, including telehealth, across Australian office locations
- Over 700 employees were given the opportunity to participate in a Technical Development program, supported by PetroSkills.

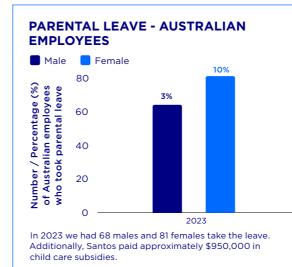
#### **MATERIAL TOPICS**

Employment practices, diversity and inclusion

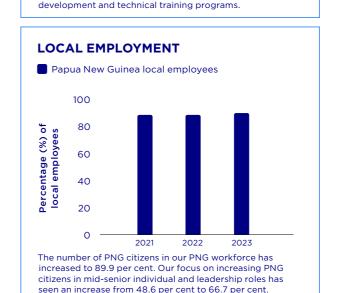


# 2023 performance data

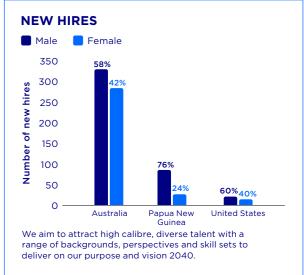




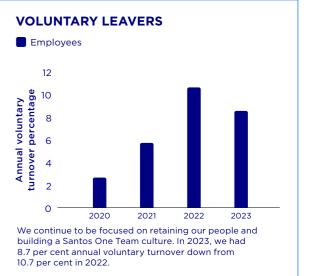




our people through targeted leadership and professional



**Appendices** 



<sup>1</sup> Percentages represent the per cent of the category who are women, and not the distribution of the female workforce. As such these numbers do not equal 100 per cent.

Santos Sustainability and Climate Report 2023

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

Material topic

# **Employment practices**

GRI 2-7. 3-3. 11.10. 11.11 AND 404-1-404-2

#### Our approach

In such a competitive employment market, Santos understands the need to differentiate to draw top talent into the business, and the importance of our culture to talent retention. In 2023, activity has been focused on building greater alignment of the Santos One Team culture with our purpose and vision through the rollout of a new Employment Value Proposition (EVP). Our objective is to build a Santos One Team culture where our people are focused, disciplined, entrepreneurial and energised to leave a positive legacy. Working with an external specialist, the development of the Employment Value Proposition included engaging with our people across all operations to understand more about the current employee experience. identify barriers and opportunities to creating and sustaining a Santos One Team culture and hearing what sets Santos apart from our competitors.

#### **Potential impacts and risks**

Attraction, development and retention of our people continues to be a core focus at Santos. Within

our industry, we are operating in a competitive environment to attract the best talent, against the backdrop of scarcity of skills and diminishing talent pipelines globally.

#### **Our engagement**

One of the key activities to support the EVP has been the introduction of a higher frequency listening model through our Real Talk employee survey approach. Partnering with an external provider, we conducted two employee surveys to measure against our Real thrives here<sup>2</sup> commitment - to create the workplace and culture that will deliver our Purpose and Vision 2040. This new approach empowered leaders to take direct control of feedback response with access to the results dashboard within weeks of survey close, enabling greater speed-to-action from employee input to leader feedback and the development of action plans. The first survey provided a baseline and generated insights and focus areas to accelerate progress. It highlighted our top strengths as safety and the calibre of the people at Santos. A second survey was conducted as a check in on progress.



#### 2 In 2023, activity has been focused on building greater alignment of the Santos One Team culture with the new purpose and vision through the rollout of a new Employment Value Proposition (EVP), Real thrives here.

#### **Our actions and performance**

A range of new people-focused initiatives have been implemented, focusing on a number of key drivers for our workforce:

- Flexibility: At the start of the year, we piloted a compressed nine day fortnight across our Australian office locations under the banner of Flex Friday. The trial was successful and Flex Friday has now become a permanent offering for our Australian workforce. For our Papua New Guinea and Timor-Leste workforces, we commenced planning for pilot programs to launch in 2024. This adds to our existing flexible work arrangements
- Health and wellbeing: An enhanced Healthier Me program has been implemented, putting our employees at the centre, providing a range of offerings across five key areas Healthier Bodies, Healthier Minds, Healthier Relationships, Healthier Finances and Healthier Places. This has included the introduction of on-site GP and medical consultations, including telehealth, across our Australian office locations; a state-of-theart gymnasium in our Adelaide office; and a new health and wellbeing portal providing access to hundreds of health and wellbeing resources, articles, and health communities
- Performance-focus: A new performance and reward framework, Energy to Achieve, was launched to increase clarity and transparency around performance expectations, and provide more feedback, guidance, and support for our employees to focus and reach their full potential. This has included the introduction of a new recognition program, with a careers framework under development to further support career progression.

Our commitment is to continually invest in building capability, and through 2023 we have expanded our employee development offerings:

- For our technical workforce, we implemented a new Technical Development Program, supported by PetroSkills, with over 700 employees invited to commence the program in 2023. It enables employees to assess their competency against current and future roles and provides access to targeted development content to support their specific needs
- Our LEAP Curriculum, launched in 2022 with 25 development programs, continues to be delivered, expanding to broader audiences to support our larger geographical footprint. This has included an increase in the number of face-to-face programs delivered in Papua New Guinea and Alaska.

- In total, 130 programs were delivered and more than 1,879 people attended across all Santos locations. In addition, a new program for senior leaders, in partnership with the Australian Graduate School of Management, commenced early this year
- In 2023, there has been a dedicated focus on embedding learning. Our digital learning library, Skillsoft, provides our workforce with access to thousands of learning resources ranging from online programs, webinars, videos, and articles. This digital learning content has been paired with our LEAP Curriculum content to further support learning objectives before and after attendance at development programs. We have also introduced learning 'reconnects' (group coaching-based forums) as a follow-up to our flagship leadership development programs, for participants to share successes and challenges in applying learning back in their roles
- Our strong focus on accelerating leadership development has seen further investment in the two coaching programs targeting senior leaders and mid-senior leaders with one-on-one coaching. More than 100 employees have been invited to participate in the coaching program since its launch in late 2022.

Santos Sustainability and Climate Report 2023

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

Material topic

# **Diversity and inclusion**

I GRI 3-3, 11,11 AND 405-1

#### Our approach

Core to our Santos One Team culture is creating an inclusive work environment and embracing a diverse workforce. We are committed to attracting and retaining diverse perspectives, skills and experiences to continue to drive innovation, efficiency and business performance.

#### **Our performance**

Female representation continues to be a key focus area, emphasising both attraction and retention. Females made up 38.9 per cent of our new hires and 26.2 per cent of employee-initiated turnover. As a result:

- There has been an increase of 2.8 per cent in female representation in the general workforce, up to 27.2 per cent, with 39.2 per cent representation in our non-field workforce
- This includes an increase of 6.4 per cent at Leading Business LEAP level.

Across our Australian office locations, we held a series of gender diversity focus groups with the aim to gather diverse perspectives and insights to inform more inclusive processes and practices. This contributed to the broadening of our flexible work arrangements and health and wellbeing offerings. We continued our focus

on offering generous parental leave and childcare subsidies to ensure that we support and place value in retaining the skills, knowledge and experience of our people when they become parents. In 2023, we had 68 males, and 81 females undertake our primary carers 18-weeks paid parental leave and paid approximately \$950,000 in childcare subsidies.

Santos is committed to meaningfully contributing to the future strength and prosperity of the communities where we operate, building deep, long-lasting relationships with positive intergenerational benefits, with a focus on Aboriginal and Torres Strait Islander People, Alaskan People, and local employment in Papua New Guinea and Timor-Leste.

Aboriginal and Torres Strait Islander representation has risen to 2.1 per cent of our total workforce, including recruiting 17 new permanent employees. The apprenticeship program continues to be an effective pathway with eight Aboriginal People and Torres Strait Islander People commencing the program this year representing 30.8 per cent of the Australian intake. Internally, we conducted Yarning Circles with our Aboriginal and Torres Strait Islander employees and contractors to gather insights and opportunities to improve our attraction, development and retention practices. The action plan from these Yarning Circles has led to the development and implementation of a Cultural Competency training program and an Aboriginal and

Torres Strait Islander employee mentoring program. Both programs have been developed in partnership with an Indigenous-owned company, as well as establishing a partnership with an Indigenous-owned recruitment company to support sourcing of Aboriginal and Torres Strait Islander candidates.

In Alaska, the focus remains on vocational programs with continued sponsorship of the Alaska Native Science and Engineering Program. We welcomed four summer interns this year as part of the summer bridge program.

In Papua New Guinea, we continue to prioritise local employment with an increase in Papua New Guinea citizen representation to 89.9 per cent of the local workforce, including an increase of 18.1 per cent in Leading Teams LEAP level. We recommenced the Graduate program in Papua New Guinea with six new graduates, including two from our operational areas. In addition, 34 apprentices commenced the Papua New Guinea program, with six from our project areas. Our investment in our project impact areas is also reflected through the Santos Education Sponsorship program which provides a funding package including fully-paid tuition fees, boarding, lodging, meals, administration fees and book allowance, as well as return travel airfares for students. Last year we supported 96 students, with 34 graduating after completing studies in a variety of fields including Business Management, Medicine and Surgery, Primary Teaching, Information Systems, Sustainable Tropical Agriculture and Electro Technology among others.

An eight-month level II Electrical and Instrumentation training program in Timor-Leste has seen 72 students graduate. The program comprises of both theoretical

and practical components on the fundamentals of oil and gas, HSE operation, electrical and instrumentation maintenance and a six-month placement within public and private industries across Timor-Leste. This program is the result of a partnership and collaboration between Santos,

the Bayu-Undan Joint Venture, the government of Timor-Leste (through the Autoridade Nacional do Petroléo e Minerais (ANPM), and the Secretary of State for Training and Employment in collaboration with CEGELEC and CNEFP-Tibar.



### Sustainability pillar

# COMMUNITY

#### 2023 performance summary

- Aboriginal People and Torres Strait Islander People Employment and Training pathways
- An Aboriginal and Torres Strait Islander recruitment program initiated resulting in an increase of 17 employees in Australia
- An overall Aboriginal and Torres Strait Islander workforce increase by 44 per cent in 2023 and permanent workforce increase by 47.2 per cent
- Introduction of an Aboriginal and Torres Strait Islander employee mentoring program, called Mob Matters, designed to support employees, and improve retention rates
- Consistent with our focus on community, Santos recorded strong local employment:

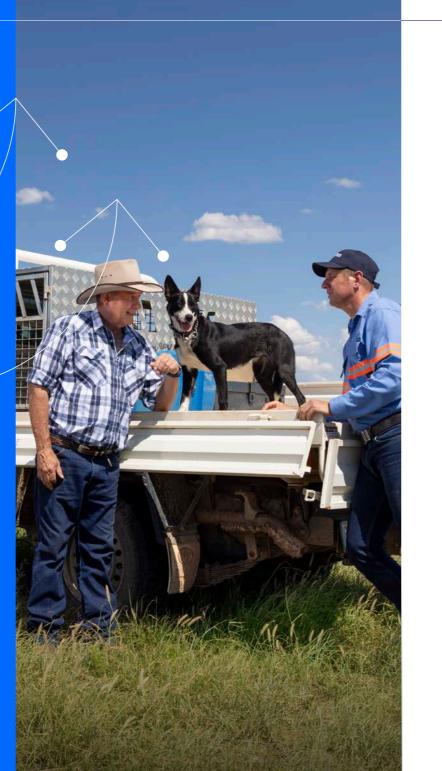
Darwin and Narrabri	100.0 per cent
Gladstone	95.2 per cent
Whyalla	93.9 per cent
Papua New Guinea (PNG citizens)	89.9 per cent
Dili (Timor-Leste citizens)	100.0 per cent

#### MATERIAL TOPICS

Community land and resource rights

#### SIGNIFICANT TOPICS

Local communities



# 2023 performance data

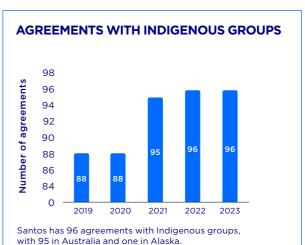


Santos saw a high level of activity in cultural heritage management processes in 2023 with 477 cultural heritage assessments undertaken across Australia, Alaska and Papua New Guinea.

#### COMMUNITY COMPLAINTS<sup>1</sup>

Country	Number of Complaints
Australia	7
Papua New Guinea	111
Timor-Leste	0
United States	1

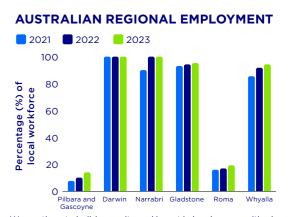
Santos has a community and landholder complaints procedure that defines a complaint. In addition to the procedure Santos has legacy processes in Papua New Guinea and Alaska. Santos' approach to classifying and recording complaints is under review and Santos will roll out a revised approach across all operating regions during 2024.



COMMUNITY INVESTMENT (\$'000)<sup>2</sup>

	2023	
Region	Mandatory <sup>3</sup>	Voluntary⁴
Western Australia		480
Queensland	973	3,083
South Australia		1,646
New South Wales	1,328	540
Northern Territory	53	150
Papua New Guinea <sup>5</sup>		15,457
Timor-Leste		482
United States	17,296	17,229
Corporate		142
Total	19,651	39,209

Community investment Includes both voluntary and mandatory community investment spend. Uplift in 2023 spend is derived from three Alaska infrastructure projects, two of which concluded in 2023.



**Appendices** 

We continue to build capacity and invest in local communities in proximity to our operations. In Darwin, we have 100 per cent local employment, in Narrabri and Gladstone we are over 90 per cent.

### ABORIGINAL AND TORRES STRAIT ISLANDER WORKFORCE PARTICIPATION



We are committed to increasing Aboriginal and Torres Strait Islander representation in our Australian operation. The targeted focus has seen an increase from 1.5 per cent to 2.1 per cent of the Australian workforce.

- 1 In accordance with the Community and Landholder Complaints Procedure an external complaint is defined as an expression of dissatisfaction or grievance made by an external individual or organisation in relation to our business activities.
- 2 Community investment is USD Santos gross operated.
- 3 Mandatory community investment includes financial obligations that Santos is legally obligated to fulfil under a binding agreement, regulatory authority mandate, or other legal requirements, with the aim of providing social, economic, and/or environmental benefits to a community through third party arrangements.
- 4 Voluntary community investment includes sponsorship partnerships, community grants and donations which aim to provide direct community benefit and community participation and/or capacity building opportunities, Santos Foundation partnerships, grants, capacity development opportunities and community infrastructure projects.
- 5 PNG Voluntary community investment includes Santos Foundation spend of \$13,675,792.

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability

Material topic

# **Community land and resource rights**

GRI 3-3 . 11.16. 11.17 AND 411-1

#### Our approach

Santos is committed to partnering with communities to build respectful and mutually beneficial relationships and delivering positive outcomes in the areas where we operate.

To better align with international standards, this material topic focuses on our relationships with Indigenous people across our operating footprint, and the deeper issue of land and resource rights.

Through consultation, engagement, opportunity identification, investment and support, we partner with Indigenous people to contribute positively to sustainable communities, opportunities for work, economic growth and land management across all Santos geographic locations.

#### Our engagement

### WORKING WITH LANDHOLDERS AND LANDOWNERS

Through strong and collaborative relationships with our landholders and landowners, Santos is committed to building mutually beneficial outcomes.

In Papua New Guinea, Santos works in partnership with local community members, groups through our Village Liaison Officers (VLO's) to build respectful relationships, improve living standards and create stronger communities for the future. We do this by implementing programs that are aimed at alleviating poverty, strengthening government services especially in health and education and supporting Lanco Business development.

In Alaska, land and resource rights as well as most surface activities associated with the Pikka Project are managed through regulatory permitting and approval processes that are administered by Federal, State of Alaska, and local North Slope Borough agencies and other stakeholders. As part of these processes, government entities are required to consult potentially affected stakeholders, particularly at the local level.

The subsurface leasehold that Santos is accessing for the Pikka Project is held in part by the Arctic Slope Regional Corporation (ASRC), the regional entity representing Indigenous shareholders across the entire North Slope of Alaska. Activities related to developing these leases are reviewed with annual reports to the ASRC. Santos' access to these lands occurs only with agreement from those corporations, whose shareholders and leadership are entirely Indigenous Inupiat.

Surface activities occur on lands owned by the Kuukpik Village Corporation, which represents Nuiqsut, the nearest community to Pikka. Access to the surface and Santos' activities occur only with support from Kuukpik through a Land Use Agreement. Under that agreement Santos routinely meets with Kuukpik leadership. All activities subject to the Agreement are reviewed and approved annually by Kuukpik.

#### Our actions and performance

### ADDRESSING LANDHOLDER AND COMMUNITY COMPLAINTS

Our approach to complaints and grievances is driven by our <u>Human Rights and Modern Slavery Policy</u> and our commitment to provide access to grievance mechanisms and provide for, or contribute to, remedy as appropriate. Santos has a Community and Landholder Complaints Procedure that defines a complaint as an expression of dissatisfaction or grievance made by an external individual or organisation in relation to our business activities. This Procedure provides the definition, reporting exclusions, and the process for management of complaints.

In addition to the Procedure Santos has legacy processes in Papua New Guinea and Alaska. Our current approach to classifying and recording complaints is under review and Santos will roll out a revised approach across all operating regions during 2024.

In 2023, Santos recorded seven complaints in Australia, one complaint in Alaska, 111 in Papua New Guinea and none in Timor-Leste.

In Australia, complaints do not include feedback received during regulatory approval consultation processes. Separate to complaints reporting, the Land Access team in Australia records negative interactions with landholders. In 2023, 125 negative landholder interactions were recorded. These negative interactions are reviewed, classified and may be registered as a complaint requiring formal investigative action in accordance with the Procedure.

In Papua New Guinea, complaints recorded in 2023 were largely associated with development activities.

#### INDIGENOUS PARTICIPATION PLAN

We are continuing to deliver our Indigenous Participation Plan (IPP) for culturally responsible participation, economic participation and community participation. Over 2024, this plan is being reviewed to align with our global practices and policies as well as to incorporate the directive actions from the IAP.

- Reviews and provides views on the design, delivery and strategic direction of the Santos IPP and associated initiatives
- Provides insight into contemporary issues, views, needs and interests of Indigenous communities
- Reviews Indigenous participation governance structure and performance reporting.

The IAP met three times in 2023. The Panel representatives developed a set of key areas for the IAP to focus on, including:

- Aboriginal and Torres Strait Islander employment and training
- Aboriginal and Torres Strait Islander contractor participation
- On-Country carbon and biodiversity offset opportunities
- Supporting return to Country programs
- Santos employee cultural awareness.

A key IPP commitment was to implement a cultural immersion program to improve cultural understanding by Santos employees. In 2023, two immersion experiences were developed, one at Mount Tabor on Bidjara Country in Queensland and one in the Adelaide region with custodians from the Yawarrawarrka people from northern South Australia and from the Milikapiti community located on Melville Island. Senior Santos leaders learned about culture via storytelling and music, participating in cultural activities including wood carving and visiting sites of cultural significance on Mt Tabor. This program was very well received by all participants, and will continue into and beyond 2024.

**Appendices** 

In November, IAP members joined the second CEO Traditional Owners Yarning Circle, bringing Traditional Owner representatives from across our Australian footprint together to talk openly with the Santos CEO and executives on how we can work together to shape a better future.



#### **Yarning Circle roadshow across Santos assets**

Through consultation and engagement with Aboriginal and Torres Strait Islander employees during 2022/2023 we went on a journey of listening, yarning, sharing information and ideas, so we could ensure Santos has a sustainable workforce for the future. By Santos providing this opportunity where employees felt culturally safe to voice their thoughts/opinions we have now taken action to develop the next stage of our Indigenous Workforce Strategy/IPP where Aboriginal and Torres Strait Islander employees,

and leaders are invited to participate in a variety of initiatives which focus on empowering and increasing employment outcomes for Aboriginal People and Torres Strait Islander People. As a result of the Yarning Circle, we were able to identify and measure current attraction, recruitment and retention barriers within our organisation so that we can improve employment and economic parity for Aboriginal People and Torres Strait Islander People, and members of the local community.

### NATIVE TITLE AND CULTURAL HERITAGE MANAGEMENT

Currently 96 cultural heritage agreements are held with Indigenous groups across our Australian and Alaskan operations that ensure their cultural authority is maintained over how cultural heritage is managed on their Country. In onshore Australia, an active cultural heritage management program supports ongoing development. In 2023, Santos completed 477 cultural heritage assessments compared with 257 in 2022, and engaged 206 Indigenous Cultural Heritage Officers. In 2023, Santos negotiated a new Cultural Heritage Management Plan with the Wongkumara people in southwest Queensland which includes Santos providing support for an expanded program of visits to Country by Elders and young people.

#### Narrabri Gas Project update

In New South Wales, in December 2022, the Native Title Tribunal determined that Santos negotiated with the Gomeroi people in good faith and that Narrabri gas project petroleum production leases can be granted by the State. In January 2023, the Gomeroi people filed an appeal of the Tribunal's decision which remains underway. In the meantime, Santos has established an Aboriginal Cultural Heritage Working Group (ACHWG) to assist in the implementation of the Cultural Heritage Management Plan, negotiated with the Gomeroi people in accordance with the condition of the determination. The ACHWG members are from Santos, Narrabri and Wee Waa Local Aboriginal Land Council, the Gomeroi Native Title Claimants. and an independent chair.

#### **Barossa Gas Project update**

The Santos-operated Barossa Gas Project is an offshore gas and condensate project that proposes to provide a new source of gas to the existing Darwin Liquified Natural Gas (DLNG) facility in the Northern Territory.

Santos is planning several offshore petroleum activities to develop the Barossa Gas Project, which will be addressed under different Environment Plans (EPs). We are required to consult with relevant persons about those activities when preparing each EP.

Santos consults to further ascertain, understand and assess values and sensitivities of the environment that may be affected by a proposed activity, and potential environmental impacts and risks of a proposed activity. There may be information Santos is not yet aware of but needs to properly understand and assess potential activity impacts and risks. Consultation may inform this. It may also inform what control measures are to be proposed to reduce environmental impacts and risks to as low as reasonably practicable and to an acceptable level.

Please find more information about this project here.



65

67

### **Performance highlight**

### Alaska Native Science and Engineering **Program**

In 2023, Santos again collaborated with the Alaska Native Science and Engineering Program (ANSEP). continuing our commitment to the advancement of education and employment opportunities in STEM fields for Alaskan Native students.

This past summer, Santos hosted four students from ANSEP's Summer Bridge and University Success programs. Each intern is supported by a technical coach and a supervisor as they work alongside our engineering, environmental, commercial, and IT professionals in Alaska. They gained hands-on experience with realworld projects and expanded their horizons of potential career opportunities. During their time with Santos, all interns were given a unique set of experiences and training within their assigned disciplines. This year, three of the interns had the opportunity to visit Alaska's North Slope where Santos' Pikka Project is located.

At the end of the summer, each intern gave a presentation about their project work to Santos' Alaskan employees. They shared details about their individual project such as developing a flashing stop sign powered by wind for the community boat ramp, or the creation of a renewable energy atlas, and creating a labelling system for ice road permits.

They also participated in an exit interview so we can continue improving our program offering.

Students who complete the Summer Bridge and University Success program are eligible for scholarship funding to attend the University of Alaska. All four of our ANSEP interns successfully completed their internships with Santos this year, making them all eligible for funded schooling at the University of Alaska's college campuses around the state. In addition, ANSEP increased its largest-ever graduating class from their Acceleration Academy which helps students go from eighth grade to a bachelor's degree in just five years.

The North Slope communities of Alaska remain an integral part of our operations. Santos maintains seasonal local hire programs offering employment opportunities for subsistence representatives and tundra technicians year-round. These two positions are a key component of the land use agreement with Kuukpik, the Indigenous owners of the surface land where the Pikka Project is located. Santos also supports an array of programs that strive to empower and educate Alaskan Native youth in STEM programs, healthy living, and traditional subsistence education.



#### Significant topic

### **Local communities**

GRI 11.15

Local communities comprise individuals living or working in areas that are affected, or that could be affected, by our activities. An organisation is expected to conduct community engagement to understand the vulnerabilities of local communities and how they may be affected by the organisation's activities. This topic covers socio-economic, cultural, health, and human rights impacts on local communities.

#### **Community engagement:** ensuring a strong local presence and communities

Santos is committed to working together with host communities across Australia, Papua New Guinea, Alaska and Timor-Leste. We work with local people who live and work in the communities to listen and engage with stakeholders, to encourage information sharing and to provide an understanding of our activities.

Our work in the community is guided by our Local and Indigenous Communities Policy. The Policy contains specific objectives around forging mutually beneficial community relationships and delivering sustainable and positive social outcomes.

Ways in which we engage our communities include:

 Maintaining a presence through locally-based staff and local shopfronts for people to visit in Roma, Queensland and Narrabri, New South Wales. A new shopfront has been built and opened in Darwin, Northern Territory

- In Papua New Guinea our Community Affairs team, located in Santos camps, and Village Liaison Officers, maintain strong relationships with communities in our operating areas across three provinces
- Managing community feedback to ensure we promptly understand and address community concerns (see Addressing Landholder and Community Complaints section)
- Santos has undertaken an annual community sentiment survey since 2019. A review was conducted in 2023 and a decision made to conduct the survey biennially and to expand it to include PNG, Alaska and Timor-Leste.

Through our engagement we better understand how to best support our host communities' needs and priorities.

#### **Community responsiveness** through stakeholder engagement in Timor-Leste

Santos continues to engage in a number of prospective projects for Timor-Leste, with the establishment of a Dili Supply Base, proposed Bayu-Undan decommissioning works, and collaborative discussions with the Timor-Leste Government about Carbon Capture and Storage (CCS). As such, the future of working with and alongside the community is strong.

With a key commitment to local content and social inclusion programs, there are clear correlations between project initiatives and positively impacting employment, economic and living conditions.

Santos has been particularly active throughout 2023 in ensuring public involvement in knowledge sharing and feedback collection from a large diversity of stakeholder groups about the works we plan to carry out.

Comprehensive stakeholder engagement was undertaken with:

- Timor Port Management and Workforce
- Timor-Leste business enterprise stakeholders
- NGO advocacy groups including FONGTIL. La'o Hamutuk, and Haburas Foundation
- Education institutions such as Dili Institute of Technology, National University of Timor-Leste and CNFP Tibar Training Centre
- Government bodies
- The Dili community and Tibar and Ulmera Sucos.

With stakeholder feedback from 13 separate engagement meetings, a series of key recommendations were generated for action. These included outlining experience in the activity of sharing associated management plans; highlighting environmental impacts and controls; outlining risk mitigations; detailing incident management; and ensuring clarity in simple, easyto-understand terms for non-industry stakeholders.

The Bayu-Undan stakeholder engagement process has facilitated the ability for Timor-Leste stakeholders to understand, appreciate and influence project initiatives.

**Stakeholder engagement** 

Kuukpik Village Corporation

in Alaska

including:

- Kuukpikmuit Subsistence Oversight Panel
- Native Village of Nuigsut (Nuigsut tribal entity)

The Santos Alaskan team routinely engages with

the community leadership groups from Nuigsut,

City of Nuigsut government.

Santos also hosts community events and meetings where formal and informal engagements with the community at large occur.

As a result of these engagement processes, Santos has gained an understanding of the potential impacts of our activities on local (Indigenous) stakeholders. Specific issues that were identified and examples of projects undertaken by Santos to avoid, minimise or offset those effects include:

- Visual, noise and subsistence resources: Project Road and pad placement and facility layouts were realigned to move infrastructure further from Nuigsut and Colville River
- Air Quality emissions: Development of management strategy that uses the latest, cleanest burning technologies for temporary construction and drilling activities; centralised power production and distribution after facility startup
- Impacts to subsistence resources and activities:
- Installation of a boat launch at Pikka allowing community access to the road system to support whaling and other subsistence activities
- Project design elements to minimise impacts to subsistence wildlife (eg pipeline height and routing)
- Wildlife monitoring

- Water quality and community health and safety:
- improvements

### **Papua New Guinea community** engagement

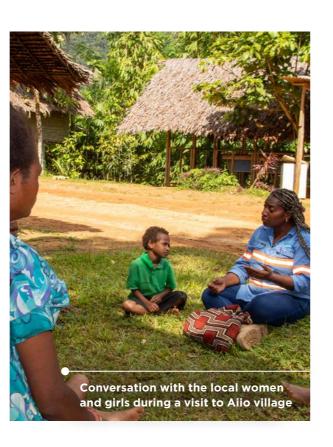
In Papua New Guinea, it is estimated that over 95 per cent of land is under customary ownership. making our landowners a key partner of our operations. In addition to our landowners, we also engage with important stakeholders including our national, provincial and local-level governments and faith-based and non-government organisations who have a presence in our project areas.

Through our community engagement with our stakeholders, we have been able to uncover several social and environmental issues. One key issue is the lack of support for women in relation to economic development to improve their livelihoods. Much of this is due to the remoteness of villages, cultural norms that restrict women's participation and the overall lack of service delivery infrastructure. These are further compounded by challenges relating to increasing lawlessness, limited access to government services, low education levels, limited access to economic opportunities, limited access to markets, and family and sexual violence.

In line with the Papua New Guinean Government's focus on reducing gender inequalities, Santos has contributed by supporting programs and promoting gender equality and inclusion to achieve sustainable development growth, reduce poverty and improve living standards within our operational footprint. These programs have empowered women to take part in agribusiness opportunities that generate household income and increase nutritional intake for their families. Examples of programs and initiatives we support include:

- Sustainable agriculture and livelihood development projects
- Business development and local content support to landowner companies
- Community assistance and donations program
- Education sponsorship programs
- Drought relief support programs for school and communities.

See Santos Foundation chapter for more information.



### **Performance highlight**

### **ALASKA**: **Connecting Nuiqsut** community by boat

In October 2023, along the eastern edge of the Colville River in Alaska, Santos hosted a ceremony to celebrate the exciting completion of a new boat launch for the community of Nuiqsut.

During the Pikka permitting process in 2019, the company committed to voluntarily construct a \$14.9 million 24 foot-wide boat launch and 2-acre, gravel pad on the Colville River after receiving community feedback on the significant advantages it would provide to their residents.

Located near Santos Alaska's Pikka Project, Nuigsut is a remote Indigenous community that does not have year-round access to the road system. Before the new boat launch was constructed, the Nuigsutmuit (Inupiag for 'People of Nuigsut') would have to make a laborious and often dangerous journey east to Oilitok Point by boat, navigating the Colville River and rough waters of the Beaufort Sea to reach access to the Dalton Highway - a road that connects the North Slope of Alaska to its interior.



Economic sustainability

**Appendices** 

People and culture

Corporate Governance

### **Community investment**

Our community investment and partnerships are focused on capacity-building, as well as creating social value by supporting local organisations to deliver programs that address key priorities or needs.

In 2023, we reviewed our Community Investment Framework at the time of expanding the Santos Foundation to all operating regions, to ensure meaningful investment alongside communities where we operate. As a result of this review, three focus areas were identified:

		B 90 1 10
( 1	)	Resilient communities



Environment

In 2023, Santos invested \$58.8 million (gross operated) across our communities. For more information on our community investment please refer to the Community performance highlights section.

### **COMMUNITY INVESTMENT FRAMEWORK**

Santos

**OUTCOMES** 

**VISION 2040** We aim to improve living standards, build respectful relationships, and create stronger communities in the areas where we operate.

### RESILIENT COMMUNITIES Supporting access to social infrastructure, systems and services

Advancing skills, systems and infrastructure for communities to to help build healthy communities create economic opportunity

**ECONOMIC PATHWAYS** 

Supporting environmental initiatives and programs that support and protect biodiversity

- Improved health and wellbeing
- that lead to sustainable Increased social inclusion/diversity

Santos Santos Foundation invests in partnerships and local initiatives to help communities thrive.

- Increased community connection and participation
- Increase in skills and qualifications employment pathways
  - Improved local infrastructure

### · Protect and re-establish · Support environmental research

**ENVIRONMENT** 

and education programs, as well as land and water conservation











broadly, including all the many individuals, groups and organisations located in the areas where we operate.



### A message from the **Santos Foundation CEO**

Building on more than a decade of work to drive positive change and empower communities in Papua New Guinea, the Santos Board in 2023 supported the expansion of the Foundation across all of Santos' operating areas in Australia, Timor-Leste and Alaska.

Leveraging the passion, knowledge and experience of our team in Papua New Guinea, we are seeking to invest in partnerships and local initiatives that help communities thrive in all regions where Santos has a presence.

We are at the beginning of this new chapter in the Foundation's exciting journey, engaging with community stakeholders in our new areas of operation, while continuing to implement our program activities in Papua New Guinea to address health outcomes, opportunities for youth, family and sexual violence and community development initiatives.

In 2023, it was pleasing to see the Santos Foundation grow and take on new challenges. I am proud of the work undertaken and want to thank the team for their commitment and passion to deliver local solutions for our communities.

Highlights of our support during the year included:

- Delivery of the Pimaga rural hospital solar mini-grid in partnership with USAID Papua New Guinea Electrification Project
- Opening of the Pimaga early childhood Literacy Library
- Construction of six new teacher houses to support strong education standards at the Pimaga Technical and Vocational Education Training centre
- Delivery of 5,697 COVID-19 vaccinations
- Delivery of 321,868 routine immunisations, including through the Accelerated Immunisation and Health System Strengthening project in partnership with and the Australian Department of Foreign Affairs and Trade (DFAT)
- Supporting 356 survivors of family and sexual violence through Bel Isi PNG.

I would also like to thank our key partners including the PNG Government, the Australian Department of Foreign Affairs and Trade, third party donors, and other private sector as well as Non-Government Organisations, and look forward to continue working together to achieve our shared goals.

Establishing, launching, and supporting the expanded Santos Foundation is a critical step in realising Santos' Vision 2040 to improve living standards, build respectful relationships and create stronger communities in the areas in which we operate. I and the team look forward to delivering for our communities in 2024.

**Jodie Hatherly CEO Santos Foundation** 



We are committed to a number of priorities including helping improve early childhood learning through various initiatives and training programs



**Santos Foundation Community** Development officer addressing **Mubi Primary School students and** parents of the Needs Assessment being carried out at their school

Santos Sustainability and Climate Report 2023 Community Economic sustainability Climate Appendices

### **2023 Performance highlights**

### Improving health outcomes and delivery



- 321,868 childhood immunisations delivered at health facilities
- 39,166 people reached through COVID-19 awareness activities and 5.697 people vaccinated
- 874 people completed tuberculosis (TB) treatment
- 495,148 individual outpatient attendances
- 6,815 antenatal care first visits
- 4,865 outreach clinics conducted
- Continued support of reliable internet connectivity for Provincial Health Authorities.

### Addressing family and sexual violence



- 2,136 survivors received services at the six Family Support Centres in Hela (as of January 2024)
- High quality case management and safe house services to survivors of family and sexual violence
- Bel isi PNG Leadership Forum held on the role men can play in eliminating family and sexual violence
- The Foundation presented to the PNG
   Permanent Parliamentary Committee for
   Gender Equality and Women's Empowerment
   (GEWE) and Gender Based Violence (GBV)
- Small grant funding for Men's Behavioural Change and Women's Empowerment projects.

### Fostering youth opportunities



- 206 students enrolled in the Pimaga VET and 16 registered under the Flexible Open Distance Education (FODE) program
- 10 young people that gained new skills and experience under the Seasonal Worker Program in Australia and three that worked for Santos in PNG returned to Pimaga in September 2023
- Kutubu Local Level Youth Development Council established with nine executives elected.

### Supporting community development



- 66 small grants, totalling \$90,170 awarded across Water, Sanitation and Hygiene, Rural Electrification and Education projects
- Partnered with the US Agency for International Development (USAID), the Southern Highlands Provincial Health Authority and the Southern Highlands Provincial Administration to deliver a solar mini-grid to power the Pimaga Rural Hospital
- 57 community engagement activities by the Foundation to promote solar energy awareness
- 253 children enrolled across four Literacy Libraries. Of these, 177 (70 per cent) have been assessed as 'school ready' for entry into the formal education system in PNG.

### Did you know?

Since 2011, the Santos Foundation, formerly known as the Oil Search Foundation, has been working with donors and local partners on development initiatives designed to **empower communities** and drive positive change in Papua New Guinea.

In 2023, drawing on this heritage, the Santos Foundation expanded its reach to make a positive and lasting impact in communities where Santos has a presence. This now also includes support for communities in Timor-Leste, Australia and Alaska.

75



### **Supporting local priorities**

#### A lasting positive legacy in the communities we serve



Pimaga teacher housing under construction

### The Foundation, funded primarily by Santos, focuses on:

- Building Resilient Communities by supporting access to social infrastructure, systems and services that help build healthy communities
- Advancing Economic Pathways by supporting the skills, systems and infrastructure for communities to create economic opportunity.

### **Achieving sustainable** long-term goals



Solar mini-grid, Pimaga Rural Hospital

### Our priorities in PNG

Healthcare



Community Development



Family and Sexual Violence



Youth **Opportunities** 

### **Delivering lifesaving electricity to a rural community**

This mini-grid will not only allow

better health outcomes at the

study at night and families can

clinic but will also light up

houses so that children can

spend more time together.

A transformative project has helped a local hospital to deliver health procedures 24 hours a day and ensure the safe storage of lifesaving treatments.

Servicing a population of approximately 20,000 people, the Pimaga Rural Hospital in Papua New Guinea's Southern Highlands Province is now able to carry out medical treatments more reliably and safely thanks to the installation of a solar mini-grid. The Santos Foundation and the U.S. Agency for International Development (USAID) partnered with the Southern Highlands Provincial Health Authority to install and co-invest in the new technology.

Working with the Public Health Authority (PHA) in partnership with the Southern Highlands Provincial Administration, the Foundation worked to embed effective governance structures to support the ongoing delivery of power to the hospital and prepay power meters to local housing. Building and maintaining infrastructure in difficult conditions comes with associated risk. This proven model now has the potential to be scaled to other areas around Pimaga and to other institutions across PNG and beyond.

The mini-grid solar project serves not only hundreds of patients seen at the clinic but also provides power to the dozen or more hospital staff and their families who live within and adjacent to the health facilities.

Feedback from the hospital has been overwhelmingly positive and staff have been able to carry out clinical procedures at night, and for example, ensure premature babies are appropriately cared for 24 hours a day.

Delivering health procedures 24 hours a day

Developing local community infrastructure

Safe storage of lifesaving treatments

**United States Charge d'Affaires** Joseph Zadrozny





Local and

global impact

### **Developing local community services**

### **Helping the** next generation



We want to see the children excel in early childhood learning so they can continue to elementary schools equipped with the fundamental tools they need.

Pale Mbipe of Hela Province, PNG

99

### **Unlocking barriers** to healthcare





We undertook repairs to the water supply, renovated the maternity ward, and repaired other buildings at the hospital. We will be able to diagnose and treat people very quickly now with these new services available in Koroba.

Dr James Kintwa. CEO Hela Provincial Health Authority

### Bel isi PNG case management and community leadership





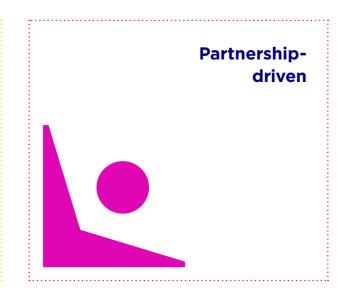
We host events and learning sessions throughout the year aimed at raising awareness and imparting tools to address family violence.

Leon Buskens. **Santos Country Chair PNG** 



### **Our guiding principles**





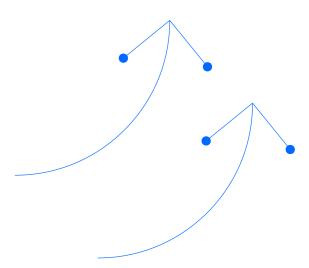


The Santos Foundation is a not-for-profit organisation whose mission is to invest in partnerships and local initiatives that help communities thrive.

The Foundation respects the political, cultural, social and legislative systems and frameworks of the countries we operate in. We work to engage local leaders, align to national development priorities and foster opportunities for local businesses.

Together, this reflects an ongoing commitment to address United Nations Sustainable Development Goals.

The Santos Foundation is made up of an Australian-based trust and Papua New Guinea-based trust, each governed by a local trustee company.





### **Breaking down barriers to early education**

The Santos Foundation presented a brand new Literacy Library in Pimaga of the Southern Highlands Province of PNG to help children learn to read and write, as well as perform simple arithmetic. The first of its kind facility for the local community has seen 58 children enrol in classes which would otherwise not be delivered.

The Pimaga Literacy Library was implemented through a partnership with Buk bilong Pikinini (BbP), which is a local NGO that provides teacher induction as well as ongoing in-library training support. In addition to supplying 3000 books, numeracy and literacy toolkits, and ongoing teacher and librarian mentoring, BbP also manages salaries of the teacher librarians through a partnership agreement with the Foundation.

The Foundation commenced its Literacy Library programme in 2016 with four libraries now established: two in the Hela Province, one in the Gulf Province and one in the Southern Highlands Province.

More than 2,000 people celebrated the opening of the Pimaga Literacy Library at the Kawama Foursquare Church ground. Foursquare Church Education Secretary, Steven Aparo, applauded Santos for helping to lay a foundation for the local children.

The Pimaga Literacy Library initiative is consistent with the latest reform in the national education system, which has prioritised early childhood education as the way forward to build strong education foundations for children in PNG.



### A positive and lasting impact















## **ECONOMIC** SUSTAINABILITY

### 2023 performance summary

- Global tax and royalty contributions of \$909 million
- Partnered with Kutubu Kundu and Digaso Festival in Pimaga, PNG to provide sanitised water to 2,000 community members in attendance
- Planted 1,760 trees across 23 hectares as part of the Santalum reforestation program in Timor-Leste
- Expanded support for Clontarf and STARS across Australia
- Indigenous and PNG landowner (total procurement spend)
- \$14.0 million (gross operated) Australian Indigenous direct spend, a 124 per cent increase
- \$28.7 million (gross operated) Australian Indigenous indirect spend, a 441 per cent increase
- Appointment of a Business Development Lead to increase procurement opportunities with Aboriginal and Torres Strait Islander businesses
- Three Indigenous Advisory Panel meetings and second Traditional Owner Yarning Circle held
- \$889 million spend supporting 1612 local businesses through procurement (gross operated).

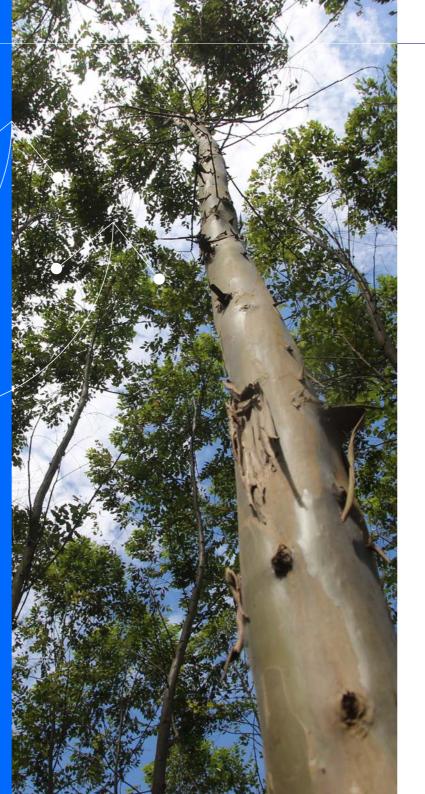
#### MATERIAL TOPICS

Economic contribution to society

#### **IMPORTANT TOPICS**

Business model resilience

Supply chain management



### 2023 performance data



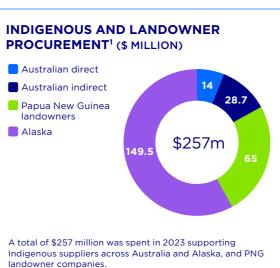
In 2023 Santos spent \$5,412 million on goods and services globally with 5,197 businesses.

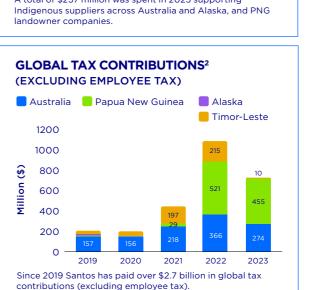


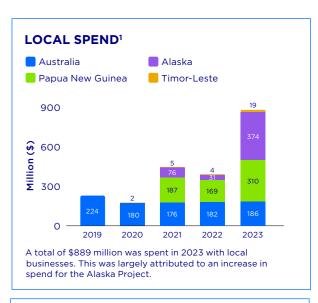


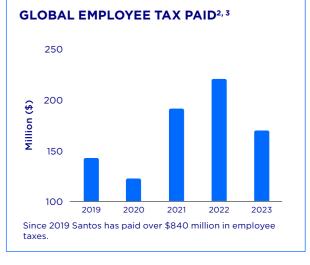


3 Employee tax includes PAYG withholding tax, state payroll tax and fringe benefits tax.









Santos Sustainability and Climate Report 2023

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

Material topic

### **Economic contribution to society**

Important topic

### **Business model** resilience

To ensure our economic sustainability, Santos maintains a disciplined operating model to drive value and consistently generate free cash flow through the commodity price cycle. At the core of this model is a portfolio requirement to be free cash flow breakeven at \$35 per barrel oil price before major capital spend.

Santos also applies rigorous economic screening criteria and hurdle rates to our investments. This includes internal rate of return, capital efficiency, payback periods and asset free cash flow breakeven performance threshold assessments. Further, Santos tests all future projects against its capital management framework. This includes assessing projects against gearing and liquidity targets and stress testing the performance of these assets under prudent macroeconomic conditions. Santos also incorporates climate-related factors into economic analysis (see page 132 in the Climate pillar section of this report for more detail).

Santos aims to make meaningful, positive, long-term contributions in the communities where we operate and deliver real benefits including local employment and training, infrastructure investment, provision of essential services, sponsorship and use of local suppliers.

Our approach has focused on:

- Paying tax and providing a return to the community
- Supply Chain management
- Community Investment Strategy and Framework
- Community Partnerships: investing in capacitybuilding and needs-based priorities.

In 2023, Santos designed two new procurement documents, a new low-value, low-risk tender schedule and contract template to empower local and Indigenous businesses. These documents represent our commitment to fostering economic growth and inclusivity within our community. By simplifying and streamlining the tender process, we aim to reduce barriers that often hinder smaller enterprises from participating in procurement opportunities.



I GRI 3-3, 11.14, 11.21, 201-1, 203-1, 203-2 AND 207

### Pay tax and provide a return to the community

I GRI 207

We are a significant taxpayer with a transparent approach to tax.

Santos complies with our tax obligations and pays our taxes, as required in accordance with the laws, rules and regulations of each jurisdiction in which we operate.

Santos has made material tax contributions of \$3.5 billion in the period 2019-2023\* across our areas of operation.

In line with Santos' Board approved Taxation Policy, tax contributions are detailed annually in Santos' Tax Contribution Disclosures (refer: Santos Tax Contribution Disclosure 2022).



#### **SUMMARY OF GLOBAL TAX CONTRIBUTIONS 2019-2023 (\$MILLION):**

	2019	2020	2021	2022	2023*
Corporate income tax	31	5	116	529	428
Royalty related contribution	101	154	248	356	158
Government royalties, levies and excise	79	53	80	217	153
Employee tax	135	126	194	221	170
Global Total	346	338	638	1323	909

#### SUMMARY OF GLOBAL TAX CONTRIBUTIONS IN 2023\* (\$MILLION):

	Corporate income tax	Royalty related contribution by region	Government royalties and excise	Employee tax	Global total \$ million
Australia	5	151	118	137	411
Timor-Leste	3	7	-	7	17
Papua New Guinea	420	-	35	18	473
United States	-	-	-	8	8
Total	428	158	153	170	909

\* Royalty-related contribution includes Petroleum Resource Rent Tax in Australia and Additional Profits Tax in Papua New Guinea and Timor-Leste.

Government royalties and excise includes Development Levy in Papua New Guinea, based on two per cent of wellhead values of projects.

Important topic

## Supply chain management

Santos continues to work in partnership with our supply chain to improve our approach, develop sustainable practices and deliver value. Santos has regular engagements with its suppliers and contractors, customers, communities and other stakeholders across the value chain which is covered in detail in the overview section of this report.

Human rights is one of our material topics and we continue to Identify and address risks of modern slavery and forced labour in our supply chain, and report on actions taken on an annual basis, as part of our approach to management and governance.

We will continue to evaluate opportunities and proactively collaborate with customers and suppliers to reduce emissions across the supply chain, see our operational update on our supply chain collaboration in the Climate section. Santos has upskilled procurement and supply chain teams internally to drive targeted support to achieve our sustainability targets.

### **Community partnerships:** investing in capacity-building and needs-based priorities

I GRI 203-1

We use our community investment programs to help create a positive legacy, building a better future in the areas we operate.

Along with our joint venture partners, Santos has continued to support community partnerships and investment including:

- Resilient Communities
- Economic pathways

**PAPUA NEW GUINEA** 

Environment

**TIMOR-LESTE** 



#### Papua New Guinea

Partnership with the Kutubu Kundu and Digaso Festival (KKDF) Committee in Pimaga, Kutubu, Southern Highland Province to support the sanitation facility at the festival, including water closet toilets, shower facilities and hand basins to increase hygiene and safety for 2,000 community members and partners in attendance.





Alaska Native Science & Engineering Program (ANSEP) provides STEM educational opportunities for students. This summer, Santos hosted four students from ANSEP's Summer Bridge and University Success Program providing hands-on experience and expanding their career opportunities.



### imor-Leste

St John of God Nursing Development Program helping improve public health service delivery by providing training to health professionals. During 2023, 995 health workers received training through the Program.



#### Timor-Leste

Santalum and support of its Reforestation Program, including the planting of 1,760 trees across 23 hectares of land in 2023.



#### Australia (National)

In 2023, Santos expanded support for Clontarf Foundation and Stars Foundation across Australia by entering into national partnerships. Both foundations are focused on supporting Indigenous students across Australia. In 2023, Santos support enabled an additional 101 students to participate in Clontarf and Stars programs and the organisations achieved Year 12 retention rates of above 90 per cent and 91 per cent, respectively.



#### **Northern Territory**

Santos supported Athletics NT and their Track and Field Championships, enabling six athletes from Tiwi College, aged between 13-17 years to participate, and further providing pathway opportunities to the National Championships.



#### Gladstone

Deep Blue Line, which is a Police and Community Youth Club (PCYC) youth mentoring program targeting Year nine students who are at risk of disengaging from school. Since 2021, Santos has supported 49 young participants to take part in the program.



### Western Australia

Ronald McDonald House Charities (RMHC) WA supporting regional families with free accommodation and services when accessing medical care at Perth Children's Hospital (PCH). More than 37,628 people from across WA accessed the Santos supported Family Room and Kulunga Moort Mia (Noongar for "Children's Family Place") at PCH in 2023.



### Queensland

**Mount Tabor Biodiversity** Offset Project with the Bidjara people to conserve over 5,000 hectares of rich environment in southwest Queensland.



#### Western Australia

Australian Institute of Marine Science (AIMS) continues to support the whale shark research in Exmouth in what is the 11th year of the partnership. This year, the research resulted in three scientific publications, funded two PhD projects, one Masters project and one presentation to the Community Liaison Group in Exmouth.



AusOcean in South Australia aims to protect and raise awareness of the annual Australian Giant Cuttlefish migration by working with Whyalla Secondary College to assemble and maintain rigs containing underwater cameras that provide a live feed. The feed on YouTube received over 11.300 live stream views from over 32 countries.



### **Roma and Narrabri**

**Country Universities** Centres across the Maranoa and Narrabri helping drive change in regional education. Santos' support helped over 325 students to access higher education in 2023 across both centres.



Santos Sustainability and Climate Report 2023 Community Economic sustainability Climate Appendices

### **Performance highlight**

# Santos partners with Indigenous-owned supplier for Port Bonython operations

Indigenous-owned supplier Zancott Knight has been contracted by Santos to generate multi-year employment opportunities for local and Indigenous personnel in the Whyalla, and the broader Upper Spencer Gulf region in South Australia.

The multi-million dollar contract is expected to result in the Zancott Knight on-site workforce growth during the duration of the contract.

At the contract peak, it will engage semi-skilled and skilled personnel representing services such as electrical, carpentry, plumbing, civils, cleaning, and vegetation management.

Santos Chief Executive Officer Kevin Gallagher said Zancott Knight's commitment to donate 10 per cent of company profits to Indigenous groups, supporting activities such as youth sponsorship and skills training opportunities, was aligned with Santos' core value to improve the living standards in the communities where we operate.

"Santos was also attracted to Zancott Knight's long-term vision to create a professional hub of Indigenous employees from a range of trades, professions and working backgrounds that operate with the common goal of advancing Indigenous health, education and employment opportunities," Mr Gallagher said.

"Port Bonython and its Moomba connection have provided reliable, affordable energy and employed thousands of South Australian workers for more than 40 years in skilled, secure, well-paying jobs. And this partnership with Zancott Knight will further support jobs for local and Indigenous people in the Whyalla, and broader Upper Spencer Gulf region."



### **Performance highlight**

# Santos supports Fresh Produce Development Project in Papua New Guinea

Santos is helping improve food security, quality of life and income opportunities for local farmers in our project impact areas through sustainable farming.

In a partnership with the communities and Farmers Produce Development Agency (FPDA), PNG MPHS, Santos Sustainable Development and Community Affairs teams work with families, local women, and youths, teaching them new skills and knowledge on sustainable agricultural practices that aim to protect the soil and produce organic fresh vegetables while increasing and maintaining a profitable farm income that will improve their lives.

In 2023, the project established community demonstrations farms (CDF) in more than 16 communities. We worked with and trained up to 80 young farmers and their families to increase their capacity to produce high-quality organic vegetables.

FPDA will provide extension services until harvesting and the PNG Mining and Petroleum Hospitality Services (PNGMPHS) will train the farmers on how to clean and store the vegetables to be able to meet commercial standards.



### Sustainability pillar

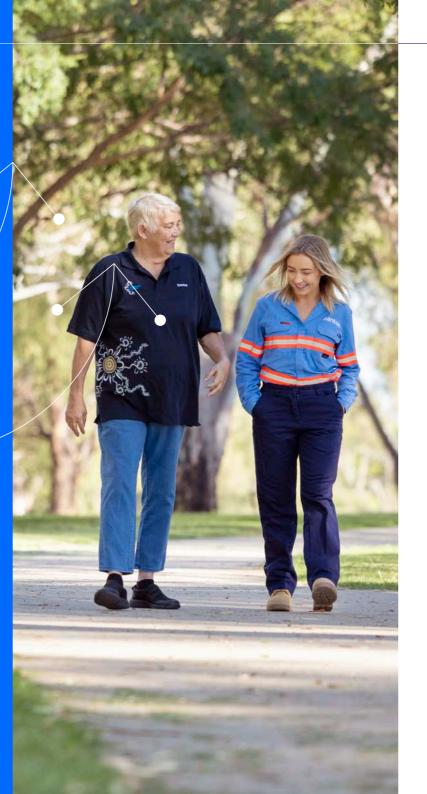
### CLIMATE

### 2023 performance summary

- Invested over \$170m of capital in 2023 on Climate Transition Action Plan initiative
- Committed to methane reductions by becoming a signatory to the 'Aiming for Zero Methane Emissions' initiative and endorsing the 'Zero Routine Flaring by 2030' initiative
- Performed detailed analysis of our Scope 3 emissions to give us a better understanding of the key sources of supply chain emissions, and how we can influence them
- Phase 1 of the Moomba Electrification Project construction is 90 per cent complete. Phases 2 and 3 FEED activities progressed
- Moomba CCS 80 per cent complete with first injection targeted for mid-2024
- MOU signed between Santos, JX and ENEOS to collaborate on CCS and support Moomba CCS Phase 2
- FEED underway on DLNG Train 1 CCS, pipeline and offshore facilities, to increase onshore carbon processing capacity for the Barossa project and subsequent injection at Bayu-Undan CCS
- Multiple MOUs signed with customers for the Bayu-Undan CCS project for the storage of third party CO2 in quantities >10 Mtpa
- Reindeer CCS targeting FEED in 1H2024
- Progressed five nature-based projects to qualify for generation of emissions reduction units in both voluntary and compliance markets globally
- Commenced field trials for a 0.25 tpd direct air capture (DAC) unit in the Cooper Basin
- Entered into an agreement with Osaka Gas for pre-FEED work on a demonstration scale project to produce carbon neutral e-methane from green hydrogen
- Signed agreements with Toho Gas and Tokyo Gas, major Japanese utilities, to investigate the potential for producing carbon-neutral e-methane in the Cooper Basin.

#### **MATERIAL TOPICS**

GHG Emissions	1	GRI 11.1
Climate adaptation, resilience and transition		GRI 11.2



### **Climate pillar contents**

Our approach to climate	
Our targets	94
Our emissions	9
Our 20 year track record of action on climate	90
Energy for progress: our approach to climate	9
A pathway to decarbonisation: the role of natural gas in the transition	104
Scope 1 and 2 Emissions Reduction Plan	10
Scope 3 Emissions Reduction Plan	10
Climate Transition Action Plan	110

Delivering on our Climate Transition Action Plan			
Operational efficiencies	113		
Carbon capture and storage	120		
Carbon solutions	126		
Low carbon fuels hubs	129		
Supply chain collaboration	131		
Efficient capital allocation aligned with our climate transition activities	132		
Supporting a just transition	134		

Ambitions, targets and metrics	
Santos' emissions reduction ambitions, targets and metrics	137
Overview of Santos' emissions sources	138
Emissions calculation and reporting	139
Scenario analysis	
Portfolio resilience through the energy transition	145
Risk management	
Integration of climate risk management	151
Climate risks	152
Physical risk assessment	154

Santos Sustainability and Climate Report 2023 Environment People and culture Community Economic sustainability

## **OUR APPROACH** TO CLIMATE

Our targets

Our emissions

Our 20 year track record of action on climate

Energy for progress: our approach to climate

A pathway to decarbonisation: the role of natural gas in the transition

Scope 1 and 2 Emissions Reduction Plan

Scope 3 Emissions Reduction Plan

Climate Transition Action Plan



Corporate Governance

I GRI 305-1-305-5

People and culture

Economic sustainability

### Our targets'

2025

COMPLETED

Reduce emissions across the Cooper Basin and Queensland by more than

5 per cent

COMPLETED

Grow liquefied natural gas exports to at least

4.5 Mtpa by 2025

COMPLETED

Assess the feasibility and, if feasible, invest in technology and innovation which can deliver

a step-change in emissions by 2025

Santos has achieved its three short-term (2025) climate-related targets, set in 2018.2

Two were delivered in 2021 and the third delivered in 2022. Please refer to our 2023 Climate Report for further detail on achieving the delivery of these targets.

2030

2040

30 per cent

reduction in Scope 1 and 2 emissions by 2030<sup>3</sup>

40 per cent

reduction in Scope 1 and 2 emissions intensity by 2030<sup>4</sup>

Reduce customers' emissions, Santos' Scope 3, by at least

1.5 Mtpa of CO2e from the supply of low carbon fuels and

carbon management services

### **Net-zero**

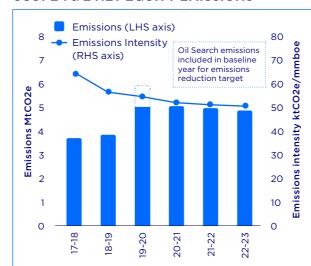
Scope 1 and 2 emissions by 2040

#### 1 Please refer to the Ambitions, targets and metrics section on page 136 for further detail.

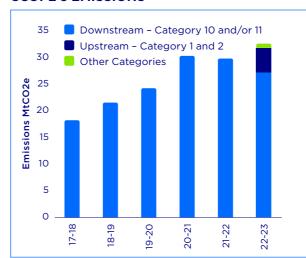
- 2 These targets relate to Santos' pre Oil Search merger portfolio.
- 3 30 per cent absolute reduction is from the Santos and Oil Search combined 2019-20 equity Scope 1 and 2 emissions baseline of 5.9 MtCO2e, representing a reduction to 4.1 MtCO2e or lower by 2030.
- 4 40 per cent intensity reduction is equity share of Santos Scope 1 and 2 emissions intensity from a 2019-20 baseline of 55 ktCO2e/mmboe, representing a reduction to 33 ktCO2e/mmboe or lower by 2030.

### **Our emissions**

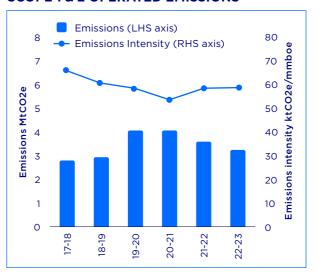
#### SCOPE 1 & 2 NET EQUITY EMISSIONS<sup>5</sup>



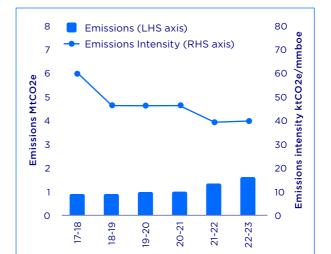
#### SCOPE 3 EMISSIONS<sup>8</sup>



#### SCOPE 1 & 2 OPERATED EMISSIONS<sup>5, 6</sup>



#### SCOPE 1 & 2 NON-OPERATED EMISSIONS<sup>5,7</sup>



Santos net equity Scope 1 and 2 emissions intensity has reduced by approximately

20 per cent since 2017-18

Operated Scope 1 and 2 emissions have reduced over the past three years from decline in production from Bayu-Undan and our investment in emissions reduction projects

Over the past five years our non-operated assets' emissions intensity has improved by increasing our equity in lower intensity assets

Through a focus on establishing an accurate Scope 3 baseline, we have a better understanding of the source of the Scope 3 emissions in 2022-23 than previous years

- 5 All emissions data reported on an Australian financial year basis. For further definition of Scope 1, 2, and 3 emissions please see
- 6 Includes Santos' equity share in assets that are operated by Santos. The merger between Santos Limited and Oil Search Limited took place on 10 December 2021. Emissions from the former Oil Search assets have been included from that date. The 2019-20 data has been grossed up for post-ConocoPhillips acquisition equity in acquired assets for the full year.
- Includes Santos' equity share in non-operated assets, including GLNG Downstream assets (operated by GLNG Operations Pty Ltd).
- 8 Downstream Scope 3 emissions are expressed on a net equity basis and upstream Scope 3 emissions are expressed on a gross operated basis.

Our approach to climate

### Our 20 year track record of action on climate

### Timeline to 2024

 Set emissions intensity reduction target of 20 per

cent by 2008 from

2002 levels.

2004 2006

600,000 ACCUs from its involvement

2015

Springwater

Forest Carbon

Project registered

 Published Climate Change Policy.

Set aspiration to achieve netzero emissions by 2050.

in support of the objective of the Paris Agreement, and commitment to transparent reporting on climate change governance, strategy, risk management, targets and metrics

Updated Climate Change Policy

 Energy Solutions group set up to pursue emissions reduction across portfolio and pursue low emissions technologies

2017

• Set 2025 climate targets including commitments to reduce emissions from Cooper Basin and Queensland operations by five per cent and invest in CCS as a step-change emissions reduction technology.

2018

Santos published

inaugural TCFD aligned

Implemented emissions

Gladstone LNG, Fairview

First award of ACCUs for

Commenced assessment

Project in Queensland

of fugitive emissions

is on-going today.

with the CSIRO which

Springwater Forest Carbon

reduction initiatives at

Roma and Moomba

Climate Change Report

 Emissions targets included in performancebased executive remuneration.

2019

Implemented emissions

reduction initiatives in

and at Port Bonython.

Cooper/Eromanga basins

2020

2021

Final investment

approximately 100 tonnes gas reservoirs to confirm technical feasibility of the

Moomba CCS project Published first review of industry associations' alignment to Santos' climate decision (FID) taken on Moomba CCS project Adopted advisory 'say on climate' vote in 2022 for shareholders.

Successfully injected

of CO2 into depleted

- 10 CO2 Storage Resource Management System, sponsored by Society of Petroleum Engineers https://www.spe.org/media/filer\_public/Od/3e/Od3efcb5-57a8-4db2-ac94-6a1beOde61df/srms
- 11 30 per cent absolute reduction is from the Santos and Oil Search combined 2019-20 equity Scope 1 and 2 emissions baseline of 5.9 MtCO2e, representing a reduction to 4.1 MtCO2e or lower by 2030.
- 20 baseline of 55 ktCO2e/mmboe, representing a reduction to 33 ktCO2e/mmboe or lower by 2030.

• Net-zero Scope 1 and 2 emissions by 2040 • 26-30 per cent reduction

in absolute Scope 1 and 2 emissions and emissions intensity by 20309 Updated Climate Change Policy to support the goals of the Paris Agreement, reduce flaring to as low as

reasonably practical for safe operations, identify cost-effective opportunities to sequester carbon, integrate new technologies and offset our greenhouse gas emissions to pursue our emissions reduction targets

 Oil Search set a new greenhouse gas emissions reduction ambition: net-zero Scope 1 and 2 emissions by 2050.

 Set new greenhouse gas emissions reduction targets

> • New 2030 emissions reduction, emissions intensity and low carbon fuels targets set:

- 30 per cent reduction in absolute Scope 1 and 2 emissions by 203011
- 40 per cent reduction in Scope 1 and 2 emissions intensity by 203012
- Reduce customers' emissions, Santos Scope 3, by at least 1.5 Mtpa of CO2e from the supply of low carbon fuels and carbon management services

Delivery of our 2025 emissions reduction targets three years ahead of schedule.

Booked 100 million tonnes

of CO2 storage resource in

the Cooper Basin in South

Australia in accordance

system for CO2 Storage

Resource Management<sup>10</sup>

with the international

Front end engineering

design (FEED) phase

commenced for Bayu-

Undan CCS project.

2022



2023

Entered into agreements with Osaka Gas Australia and several Japanese

potential for producing carbon-neutral e-methane Signed multiple MOUs with various third parties for proposed storage of CO2 at Bayu-Undan CCS and

utilities to investigate the

Commenced first Direct Air Capture trials in the Cooper Basin.

Moomba CCS hubs

and energy policy positions.

9 Targets based on 2019-20 equity Scope 1 and 2 emissions and emissions intensity, adjusted to include increased interest in the Bayu-Undan for the full financial year.

sep2022\_w\_errata.pdf.

12 40 per cent intensity reduction is equity share of Santos Scope 1 and 2 emissions intensity from a 2019-

project entered an agreement to support the West Arnhem Land savanna burning project, which has generated over 2 million ACCUs whilst providing employment to local Indigenous communities. As at December 2023, Darwin LNG holds

in the project.

The Darwin LNG

intensity target set in 2004.

2008





2016



Corporate Governance

People and culture

Economic sustainability

**Appendices** 

Our approach to climate

### **Energy for progress: our approach to climate**

I GRI 3-3

### **Key points**

- Clear Strategic Focus: Santos has a welldefined strategy centered on backfilling and sustaining existing infrastructure, decarbonising operations and investing in technologies for future low carbon fuels
- Decarbonisation Initiatives: Santos Energy Solutions (SES) plays a pivotal role in our company's long-term decarbonisation strategy, focusing on carbon capture and storage projects, operational efficiencies, and investments in emerging technologies to supply low carbon fuels
- Financial commitment to climate action: Santos is committed to climate action. evidenced by a significant investment of over \$170 million in 2023 on our Climate Transition Action Plan (CTAP) initiatives, with a potential for up to \$5 billion in energy efficiency, decarbonisation, low carbon fuels and nature-based offset projects over the next decade
- Critical Role of CCS in Achieving Net Zero: Carbon Capture and Storage (CCS) is identified as a key pillar for decarbonisation, with the technology considered mature and commercially available. The IEA emphasises the necessity of CCS in capturing a significant amount of CO2 by 2030 and 2050 to achieve Net Zero emissions, reflecting a growing global momentum for CCS projects.

### **Our Corporate Strategy and Santos Energy Solutions**

Santos continues to invest in our core assets

Santos has a clear strategy that is focused on backfilling and sustaining existing infrastructure, decarbonising operations and investing in the technologies needed to develop the low carbon fuels of the future.

to deliver the critical fuels the world needs to meet global energy demand into the 2040s. Our products are essential to support energy security and economic development. Santos has a low-cost LNG portfolio with the competitive advantage of being closer to our Asian market customers. The close proximity of our assets to Asian markets reduces Scope 3 emissions from shipping, with US to Japan 2.5 times greater in distance than Australia to Japan.<sup>13</sup> At the same time, we are working hard to reduce Scope 1 and 2 emissions associated with these critical fuels, in line with our target of netzero Scope 1 and 2 emissions by 2040. Through selective investment in emerging technology, we are addressing the third horizon of our strategy, which is preparing the company to supply low carbon fuels as market and customer demand evolves.

Santos Energy Solutions (SES) is responsible for our long-term decarbonisation strategy and the delivery of the second and third pillars of our strategy for Santos' transition to a lower carbon economy. This functional division leverages existing assets and capabilities from Santos' core business to establish

a diversified, yet focused investment portfolio, including decarbonisation projects needed for Santos to meet our emissions reduction targets. SES focuses on delivering carbon capture and storage projects that will reduce emissions from our operated assets, while unlocking opportunities to work with our customers and other emitters to provide carbon management services. We will also continue to drive operational efficiency projects in alignment with our emissions reduction hierarchy of avoid, reduce and offset, to meet emission targets. We will continue to sensibly invest in technologies to enable the advancement of low carbon fuels and subsequently progress and scale up these projects as the technologies advance and the markets emerge.

Our approach is to strike the optimal balance between disciplined and phased spending on major projects to meet global energy demand, while also investing in innovative energy solutions that align with the energy transition and meet the demands of customers.

**Delivering Santos' CCS** program has the potential to enable us to permanently store more carbon in the next 10 years than our expected Scope 1 and 2 emissions.14

### Investing for the energy transition

Santos has a diversified portfolio of assets which is positioned to deliver strong free cash flows, and our disciplined operating model ensures we are resilient throughout the commodity price cycle. Our balance sheet is well positioned to deliver our strategy and strong support from debt capital markets assist us to continue investing in high-quality projects through the energy transition.

In 2023, we invested over \$170 million on our Climate Transition Action Plan (CTAP) initiatives, up from approximately \$125 million in 2022. While there is an expectation that expenditure on our CTAP projects may vary each year depending on regulatory approvals, customer demand, and timing for financial investment decisions, we foresee the potential for up to \$5 billion of investment on energy efficiency, decarbonisation, low carbon fuels and nature-based offset projects over the next decade. In line with our disciplined operating model, we will ensure all investment meets minimum economic requirements and aligns with our capital allocation and financing prioritisation processes.

### **Decarbonisation through CCS**

CCS is considered to be a key pillar of decarbonisation<sup>15</sup> by the IEA; the technology is mature, commercially available, and the IEA states is necessary for achieving Net Zero.<sup>16</sup> The IEA estimates 1.0 Gt per year CO2e will need to be captured globally by 2030, and 6.1 Gt per year will need to be captured by 2050 to reach Net Zero by 2050.17 "The scenarios assessed by the IPCC have a median of around 15 Gt CO2 captured using CCUS (carbon capture utilisation and storage) in 2050, more than double the level in the NZE."18

CCS will facilitate the transition to Net Zero by:

#### Reducing emissions from existing assets

- Potential to capture emissions from hard-to-abate
- Potential to provide a cost-effective way to establish large-scale low carbon fuels production.

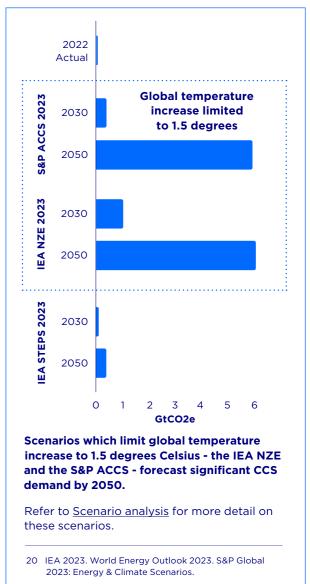
Momentum continues to build for CCS, reflected in Nationally Determined Contributions<sup>19</sup> and a 44 per cent increase in the CO2 capture capacity of CCS projects in the pipeline between 2021 and 2022. The IEA's Net Zero Roadmap 2023 Update in September 2023 placed significant emphasis on CCS and identified this technology as "critical to achieve net zero emissions", with rapid progress required by 2030.18 Currently, the planned projects globally make up about one-third of the total needed by 2030. Total capacity required by 2050 is more than 100 times greater than today's operational capacity.18

CCS is the centrepiece of Santos' decarbonisation strategy, meeting the global demand for carbon management services and facilities while laying the foundation for the low carbon fuels of the future.

15,16 IEA 2023. Credible Pathways to 1.5 °C: Four pillars for action in the 2020s.

- 17 IEA 2023. World Energy Outlook 2023.
- 18 IEA 2023. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal In reach.
- 19 Nationally Determined Contributions (NDCs) embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

#### **GLOBAL CO2 CAPTURED BY SOURCE** AND SCENARIO, 2022-2050<sup>20</sup>



<sup>13</sup> Thunder Said Energy, Emissions of Producing Natural Gas Calculator, CO2 intensity of natural gas value chains

<sup>14</sup> CO2 stored includes gross operated volumes, which includes net-equity emissions as well as third party. Scope 1 and 2 emissions refers to net-equity emissions.

rview

Corporate Governance

Environm

eople and cu

Commu

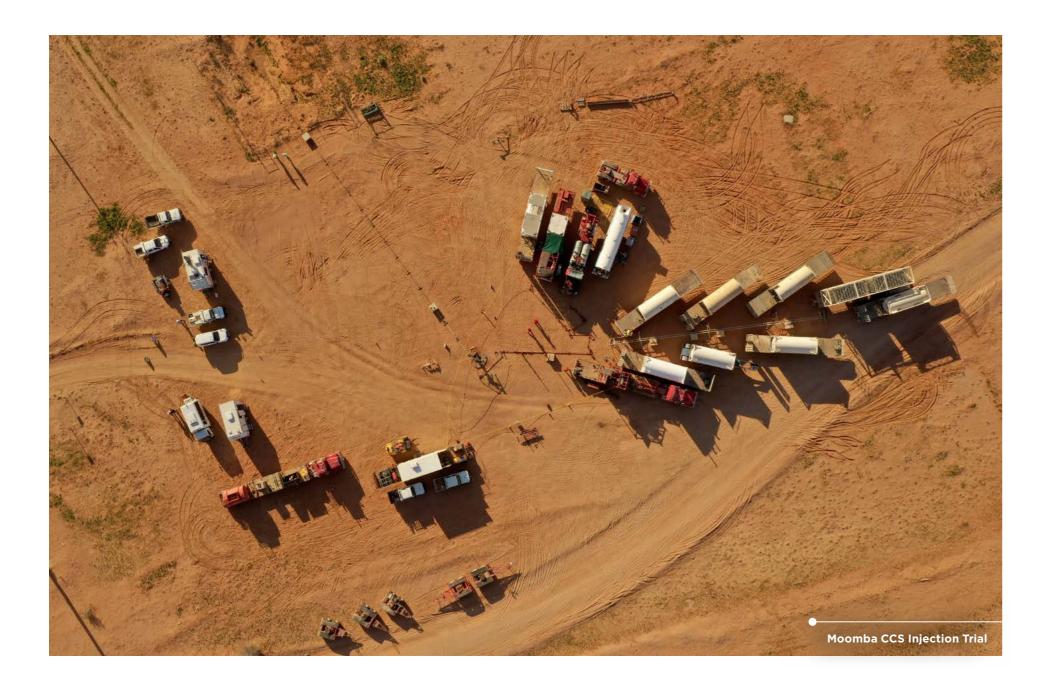
Economic sustainability

Climate

**ate** Appendices

101

Our approach to climate



### **Case Study**

### The Global Role of CCS

Carbon capture and storage (CCS) technology is critical to achieving Net Zero, as a key decarbonisation lever in industries which otherwise produce hard-to-abate emissions.

The International Energy Agency's Net Zero by 2050 scenario assumes world demand of about 32,000 petajoules of gas per year in 2050, of which almost 60 per cent would be served with abated gas through carbon capture and storage. Global policy and regulation, such as the United States *Inflation Reduction Act (2022)*, is increasingly recognising the importance of CCS technology to meet emissions reduction targets and Net Zero aspirations, and this in turn is facilitating growth in planned global capabilities.

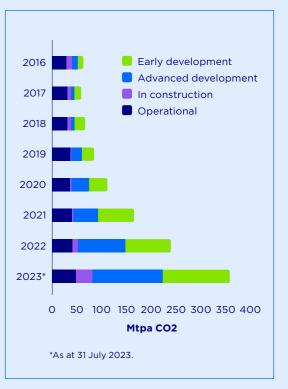
Carbon capture and storage technology is not new – it has been employed globally for over 25 years.<sup>21</sup> There are 41 projects in operation today which capture nearly 50 MtCO2 per year.<sup>22</sup> The largest project in operation today is Petrobras' Santos Basin Pre-Salt Oil Field which stores 10.6 MtCO2 per year.<sup>23</sup> In addition to operating projects, there are another 147 facilities in construction or advanced development with the potential to store a further 176 MtCO2 per year.<sup>22</sup>

Existing fossil fuel infrastructure provides a strong foundation for the development and commercialisation of CCS projects worldwide; CCS hubs with shared infrastructure provide the greatest opportunities for scale and success. Currently, most CCS projects globally are capturing emissions

generated at natural gas processing facilities.<sup>21</sup>
There is a step-change in CCS projects moving away from CO2 storage for the purpose of enhanced oil recovery, to solely for climate change mitigation purposes, such as Norway's Sleipner CCS Project.
This project, which has been in operation since 1996, has sequestered approximately 1 MtCO2 per year.<sup>22</sup>

IEA 2023: "...if all announced [CCS] projects proceed, they would provide around 40 per cent of the annual CO2 capture of 1 Gt/year needed by 2030 in the NZE Scenario." <sup>24</sup>

### PIPELINE OF COMMERCIAL CCS FACILITIES SINCE 2016<sup>23</sup>



<sup>21</sup> World Bank 2023. Decarbonising natural gas through carbon capture, utilisation, and storage (CCUS).

<sup>22</sup> Global CCS Institute 2023. Global Status of CCS 2023: Scaling up through 2030.

<sup>23</sup> The similarity in the names 'Santos Basin' and 'Santos Ltd' is purely coincidental and Santos (The Company) has no participating interest in this project, which is operated by Petrobras.

<sup>24</sup> IEA 2023. Net Zero Roadmap. A Global Pathway to Keep the 1.5°C Goal in Reach.

103

#### Our approach to climate

### Global CCS Projects<sup>25</sup>

around the world. There are currently 41 operating facilities with a cumulative capture capacity of nearly 50 million tonnes per annum. In addition, there are over 350 facilities across all stages of development and across a range of sectors.



### Europe

Operational: 4 facilities

In construction: 6 facilities

Advanced or early development: 107 facilities

The Sleipner
CCS Project in the North
Sea was the world's first
commercial CCS project
focused on climate change.
Since first injection of CO2
into geological reservoirs in
1996, it has stored over
19 MtCO2 over the
project life.

### **Asia Pacific**

Operational: 12 facilities (inc. one in Australia)

**In construction:** 8 facilities (inc. one in Australia, Santos' Moomba CCS project)

Advanced or early development: 34 facilities (inc. 10 in Australia)

### The Middle East and Africa

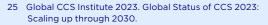
Operational: 3 facilities

In construction: 3 facilities

Advanced or early development: 9 facilities

Since 2019,
Qatargas has recovered
CO2 from its LNG trains
for dedicated geological
storage at a storage
capacity of 2.2
MtCO2 per year.





105

### A pathway to decarbonisation: the role of natural gas in the transition

We believe natural gas has a key role to play in the energy transition to meet the ongoing global demand for energy and facilitate an orderly transition, while providing the bridge to renewable energy sources and the low carbon fuels of the future.

Santos recognises the scientific consensus on climate change and supports the objective of the Paris Agreement to limit global temperature rise by 2100 to well below 2 degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels. At the same time, we recognise the importance of energy security and affordability, especially for the most vulnerable in our global community, and the vital role that natural gas and liquids play in the transition to a lower carbon future.

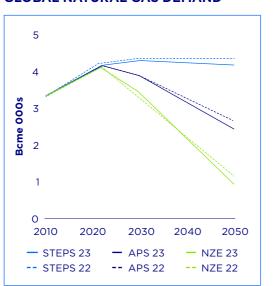
### **Meeting global demand** for energy

Natural gas plays a critical role in meeting evergrowing global energy demand as a versatile and abundant energy source. The world needs gas for electricity generation, manufacturing, agriculture, and many other every day products. Importantly, gas has many more uses than simply generating electricity - for making things that renewables can't - like fertilisers, pharmaceuticals, polymers and chemicals, steel, bricks and cement.

Under a range of different potential future scenarios where global temperature increase is limited to 1.5 degrees Celsius, natural gas remains an integral part of the energy mix out to 2050. The International

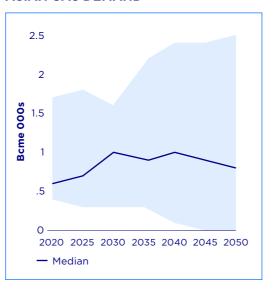
Energy Agency's (IEA) Net Zero by 2050 scenario assumes world demand of about 32,000 petajoules of gas per year in 2050, of which almost 60 per cent would be served with abated gas through carbon capture and storage.<sup>26</sup>

#### **GLOBAL NATURAL GAS DEMAND**



The IEA 2023 WEO scenarios indicate that there is a wide variety of potential future gas and liquids demand. In all scenarios there is a need for gas and liquids production through to 2050.

#### **IPCC 1.5-DEGREE SCENARIOS: ASIAN GAS DEMAND**



Santos has analysed scenarios published by the IPCC where the global temperature increase is limited to 1.5 degrees with low or no overshoot. Gas continues to supply growing Asian markets (selected countries including Japan, South Korea, China, and India, comprising some of Santos' major customers) through to 2050, remaining a significant portion of the energy mix, with median gas demand slightly increasing from 2020 through to 2050.

The IEA noted in their 2023 update that a reduction in fossil fuel supply is not the key lever to achieve the NZE scenario outcomes. Rather, an increased supply of clean energy investment and policy action to reduce demand will

### **Energy security and an** orderly transition

The global energy crisis of 2022-2023 has underscored the importance of continued supply of reliable, affordable energy worldwide. High commodity prices and ongoing global conflicts emphasise the need for an orderly energy transition to ensure that energy remains available, accessible, and affordable to the most vulnerable in our society.

cause a gradual displacement.<sup>27</sup>

Natural gas is critical for energy security in both the short-term and the longer-term.

Globally, the energy sector needs to simultaneously invest in and develop two energy systems; ensure the current system continues to operate and meet global energy demands, while increasing efforts to build the new system centred on lower carbon alternatives. Maintaining a steady supply of gas allows for the orderly and measured development of the new energy system.

### **Bridge to renewable and** lower carbon energy

Gas plays a critical role in the transition to a lower carbon future, able to flexibly fill market supply gaps as alternative energy sources emerge.

As the world looks to decarbonise and builds additional renewable energy sources, natural gas power plants will play a critical role in responding to fluctuations in supply, by providing on-demand supplementary power generation. In countries such as Australia where decentralised power generation such as rooftop solar is increasingly dominating renewable supply, the ability to quickly stabilise the electricity grid in times of unusual demand or supply will be critical over the coming decades. Moreover, according to the IEA, in 2018 gas on average resulted in "50% fewer emissions than coal per unit of electricity generated".28

Gas supply infrastructure can be efficiently repurposed to support development and distribution of low carbon fuels and decarbonisation technologies such as CCS and DAC. With negative emissions technologies (like DAC) and carbon capture expected to play a significant role in the transition to Net Zero, natural gas provides a pathway to efficiently and economically developing required infrastructure.

### Our response to alignment with the Paris Agreement

There is currently no globally accepted framework or criteria for oil and gas companies to demonstrate alignment with the goals of the Paris Agreement.<sup>29</sup> A number of global organisations, including the IPCC and IEA, publish scenarios which align with the temperature goals of the Paris Agreement, to limit global temperature rise by 2100 to well below 2 degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.

These scenarios, including the IEA NZE. reach global Net Zero emissions in years ranging from 2044 to 2050.

As outlined in our Climate Transition Action Plan. Santos operates a strategic framework that aligns our capital allocation and long-term planning processes with our emissions reduction targets, including our Scope 1 and 2 netzero target to be achieved by 2040.

29 The Science-based Targets Initiative is currently not accepting commitments or validating targets for companies in the Oil & Gas sector.

26 IEA 2023. World Energy Outlook 2023.

<sup>27</sup> IEA 2023. Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach.

<sup>28</sup> IEA 2019. The Role of Gas in Today's Energy Transitions

Corporate Governance

People and culture

Economic sustainability

**Appendices** 

107

Our approach to climate

### Scope 1 and 2 Emissions Reduction Plan<sup>30</sup>

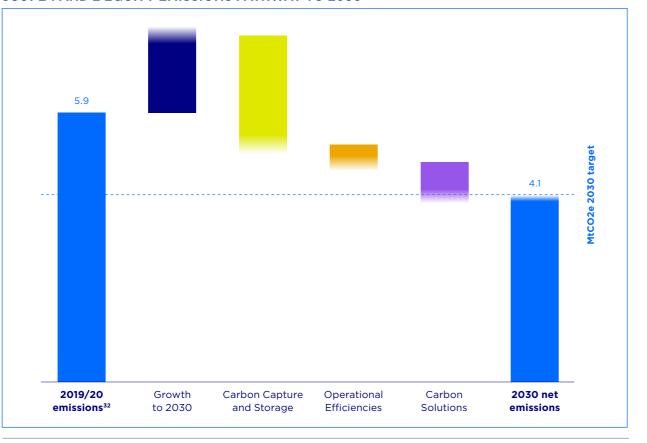
Santos' Climate Transition Action Plan provides a potential transformation and decarbonisation pathway to reduce our Scope 1 and 2 emissions by 30 per cent by 2030. This will drive progress to achieve our target of net-zero Scope 1 and 2 emissions by 2040.

Emissions reduction projects will be subject to our internal project gating process, capital management framework and project approvals. As we pursue our backfill and sustain strategy to 2030, our unabated emissions will increase with Barossa, Pikka Phase 1 and potential future projects such as Papua LNG, Dorado and Narrabri coming online. Carbon capture and storage from Moomba (under construction) and Bayu-Undan (in planning) are targeted to more than offset these emissions. Operational efficiencies including electrification, and carbon solutions in Australia, Papua New Guinea and Alaska are intended to contribute to delivering our emissions pathway to 2030. Any shortfall to our 2030 target will be addressed through both Santos-generated and Santos-acquired high-quality<sup>31</sup> carbon credits.

For further information regarding projects contributing to each pillar of our emissions reduction plan, please refer to the following sections within Delivering on our Climate Transition Action Plan:

- Operational efficiencies
- Carbon capture and storage
- Carbon solutions.

#### **SCOPE 1 AND 2 EQUITY EMISSIONS PATHWAY TO 2030**



- 30 The Climate Transition Action Plan includes current projections that are necessarily based on assumptions, contingencies and commercial judgement. The estimates included do not take into account customer demand or any future sell-downs and acquisitions, partnering arrangements and infrastructure funding. The Climate Transition Action Plan is over a forward-looking period of approximately 20 years. It is important to recognise that markets are dynamic, emerging and still evolving based on factors including developments in technology, science, markets, policy and experience over time. Please refer to page 111 for more detail in relation to the Climate Transition Action Plan.
- 31 Santos undertakes an internal screening process to assess the quality of projects which have the potential or intent to generate carbon credits. This screening is used as a decision tool to select projects which meet minimum internal requirements.
- 32 Combined Santos and Oil Search 2019-20 financial year baseline of 5.9 million tonnes CO2e, adjusted for inclusion of Bayu-Undan and Darwin LNG assets for the full 2019-20 financial year at 68.4 per cent equity.

### **Scope 3 Emissions Reduction Plan**

The analysis of Scope 3 emissions undertaken during 2023 has enabled Santos to define a plan to address our Scope 3 emissions in collaboration with our customers and suppliers.

This is a multi-faceted plan which reflects the diversity of sources of Scope 3 emissions identified in the analysis. We expect this plan to evolve over time with improvements in data availability, and as we continue to collaborate with our suppliers and customers on ways we can support them to reduce their emissions.

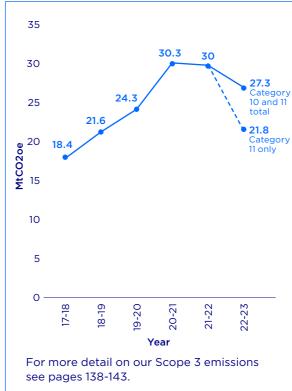
Our Scope 3 emissions reduction plan is focused on reducing Santos' most significant Scope 3 categories, as outlined below.

### **Advocating for action**

In addition to working directly with our customers and suppliers. Santos recognises the importance of industry cooperation to advocate for transparent and accurate emissions reporting across the supply chain. Within the industry associations of which we are members, we will advocate for a collaborative approach to engaging with suppliers and customers.

During 2023 Santos participated in Scope 3 workshops convened by the Climate Leaders Coalition, deepening our understanding of industry-wide Scope 3 reporting strategies and challenges. We will continue to look for further opportunities to engage with our peers on best practice Scope 3 emissions approaches.

#### **DOWNSTREAM SCOPE 3 EMISSIONS (OUR CUSTOMERS' EMISSIONS CATEGORY 10/11)33**



Scope 3 Category	Actions
Upstream (our suppliers' emissions) Category 1 and 2	<ul> <li>Continue engaging our suppliers to deepen our understanding of their emissions</li> <li>Provide guidance and education to support our suppliers to improve the accuracy of their emissions calculations</li> <li>Work with suppliers to develop mutually beneficial emissions reduction initiatives.</li> </ul>
Downstream (our customers' emissions) Category 10 and 11	<ul> <li>Continue engaging with our industrial customers, LNG customers and regional emitters to provide carbon management solutions, including progressing our current MOUs</li> <li>Establishment of three decarbonisation and low carbon fuels hubs</li> <li>Investment in technology to advance the development of low carbon fuels</li> <li>Conduct an analysis of the refineries we utilise and establish which of these have net-zero commitments.</li> </ul>

<sup>33</sup> Santos' Scope 3 emissions reporting in 2021-22 and earlier included only Category 11 emissions, and assumed all product was combusted. For 2022-23, we have updated our downstream reporting to also report on Category 10 emissions.

Corporate Governance

Health and safety Environment

People and culture

Community

Economic sustainability

**Appendices** 

109

Our approach to climate



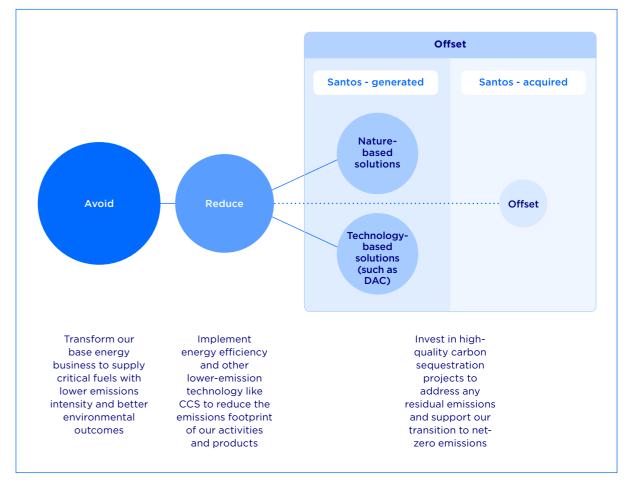
### Our emissions hierarchy<sup>34</sup>

Our emissions reduction activities are based on a hierarchy of avoidance, reduction and offset.

We prioritise avoidance and reduction of our greenhouse gas emissions as the key levers towards decarbonising our business. However, we acknowledge that carbon credits are likely to be required to offset hard-to-abate emissions from both our own operations and those of the wider economy. We prioritise development of carbon credit projects which are co-located with existing operations, and in relation to nature-based projects, provide additional benefits to local Indigenous people and the communities in which we operate.

Where carbon credits are required to comply with regulatory requirements or to meet voluntary targets, we intend to first invest in generating our own credits. These may be nature-based solutions or technology-based solutions (such as direct air capture). Utilising credits purchased on-market is the least preferred option as per the emissions hierarchy. Credits that are purchased are either Australian Carbon Credit Units or are registered under another internationally recognised standard.

Santos currently expects our portfolio of emissions reduction initiatives will comprise approximately 70 - 85 per cent structural abatement (for example carbon capture and storage, operational efficiencies) and 15 - 30 per cent carbon credits (including high-quality<sup>35</sup> nature-based solutions and purchased credits) in 2030 to meet our compliance obligations and voluntary targets.<sup>36</sup>



- 34 Our emissions reduction hierarchy Is based on projections which are necessarily based on assumptions, contingencies and commercial judgement. It is important to recognise that markets are dynamic, emerging and still evolving, based on factors including developments in technology, science, markets, policy and experience over time. Our emissions hierarchy may change in the future, based on updated assumptions and forecasts.
- 35 Santos undertakes an internal screening process of all projects with potential to generate carbon offsets to ensure they meet minimum requirements. This includes location, whether the project is held with an approved standard, the project method, and co-benefits for the community, environment and/or local Indigenous communities.
- 36 This is our best estimate at this time and may continue to evolve with time.

Corporate Governance

People and culture

Economic sustainability

**Appendices** 

#### Our approach to climate

### **Climate Transition Action Plan**

### Santos' Climate Transition Action Plan provides a foundation for decarbonising and transforming our business.

Our Climate Transition Action Plan (CTAP) outlines the decarbonisation initiatives that provide a potential pathway Santos is currently following to achieve our, and our customers', emissions reduction targets. It also provides a potential pathway to progressively develop and deliver lower carbon energy and low carbon fuels in the future. This includes emissions reduction initiatives across the value chain, including working with our customers and suppliers to cultivate demand for low carbon fuels and carbon solutions.<sup>37</sup> The IEA recognises a series of key levers that will drive emissions reductions to meet global Net Zero targets.<sup>38</sup> These levers, namely, reducing methane emissions, eliminating non-emergency flaring, electrifying upstream facilities with low-emission electricity, and providing CCS services, form a fundamental part of our CTAP.

The CTAP is underpinned by Santos' three-horizon strategy: backfill and sustain, decarbonisation, and low carbon fuels. Santos' reduction targets are guided by our emissions hierarchy of Avoid, Reduce. Offset. For hard-to-abate emissions. Santos continues to build and invest in a portfolio of projects, predominantly achieving abatement from nature-based methods and new technologies that may enable large-scale emissions abatement (such as direct air capture), as well as the supply of low carbon fuels, as market demand develops.

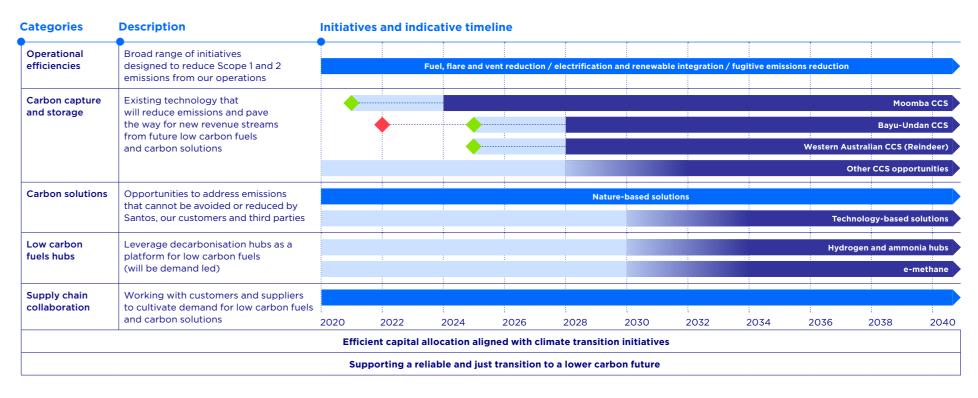
Santos will continue to evolve our CTAP to incorporate changes in the global energy transition environment. Our disciplined economic and commercial criteria will be applied to inform investment decisions and create value for shareholders, as we continue our transformative decarbonisation journey. The energy transition will not be linear and the nature of the projects we invest in mean that a three-yearly interval remains appropriate for a 'Say on Climate' vote. This allows us to make progress with our Climate Transition Action Plan, but also ensure the evolution of technology, science, markets, policy and experience over time is taken into account in Santos' approach to the energy transition.

Our CTAP is reviewed on a semi-annual basis. Reduction targets are included in the company scorecard and are stated in the Santos Annual

Updates to our CTAP seek to reflect the progress of our initiatives and further evolutions of our strategy including in response to developments in technology, global energy markets, government policies, and customer demand, 'Delivering on our Climate Transition Action Plan' provides more specific details of our progress within each CTAP category



### 2024 Climate Transition Action Plan<sup>30</sup>



Note: Future dates are target dates based on current understanding, not forecasts.

Studies/Research and development Front-end engineering design Final investment decision

<sup>37</sup> Santos describes carbon solutions as opportunities to address emissions that cannot be avoided or reduced by Santos, our customers and third parties.

<sup>38</sup> IEA 2023. The Oil and Gas Industry in Net Zero Transitions.

<sup>39</sup> Our Climate Transition Action Plan includes current projections that are necessarily based on assumptions, contingencies and commercial judgement. The estimates included do not take into account customer demand or any future sell-downs and acquisitions, partnering arrangements and infrastructure funding. Our Climate Transition Action Plan is over a forward-looking period of approximately 20 years. It is important to recognise that markets are dynamic, emerging and still evolving, based on factors including developments in technology, science, markets, policy and experience over time.

#### **Delivering on our Climate Transition Action Plan**

# **DELIVERING ON OUR CLIMATE TRANSITION ACTION PLAN**

Operational efficiencies

Carbon capture and storage

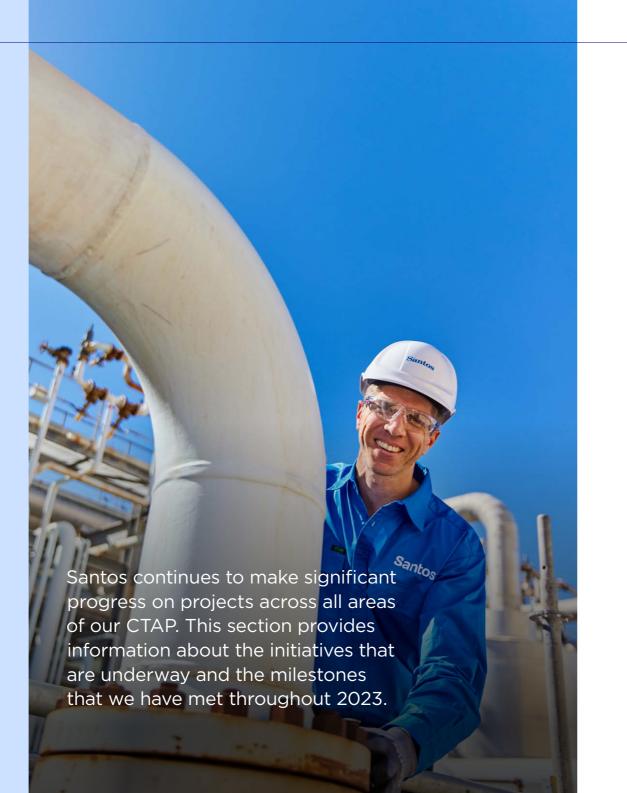
Carbon solutions

Low carbon fuels hubs

Supply chain collaboration

Efficient capital allocation aligned with our climate transition activities

Supporting a just transition



Operational update

### **Operational efficiencies**

### 2023 progress highlights

- Operational efficiency projects reduced emissions from fuel, flare and vent by over 50.000 tonnes of CO2e per annum
- Phase 1 of the Moomba Electrification Project construction is 90 per cent complete
- Phases 2 and 3 of the Moomba Electrification Project FEED activities progressed
- GLNG Upstream Electrical Convert project was progressed, converting two of the Fairview Hub 4 compressors to electric drive
- Approved a tender to deliver a 80MW behind-the-meter solar farm to support our Roma Gas processing facilities
- Endorsed two international methane reduction initiatives, Aiming for Zero Methane Emissions and Zero Routine Flaring by 2030.

### Santos' focus is to avoid and reduce emissions from our operations by improving operational efficiency

In 2023, we continued to implement efficiency projects across our portfolio to reduce the emissions intensity of our operations.

New operational efficiency projects implemented in 2023 reduced CO2e emissions from fuel, flare and venting by over 50,000 tonnes per year.

Operational efficiency projects that we currently have underway are focused on:

- Capturing and recovering gas that is currently flared or vented
- Deploying new technology which improves energy efficiency, such as LoHeat™1
- Implementing advanced process control techniques to increase fuel efficiency
- Electrifying our operations, with a focus on renewable power generation.

### Fuel, flare and vent

We continue to optimise our operations to avoid and reduce flaring to as low as safely and reasonably possible. We seek to embed emissions reduction initiatives within our base business and operations.

In 2023, we undertook a range of projects across our operated assets. A number of these are detailed in the Performance highlights on following pages of this report.



1 LoHeat<sup>™</sup> Technology is a process technology licensed by Honeywell UOP which improves the energy efficiency of the CO2 processing at Moomba.

Delivering on our Climate Transition Action Plan

### **Performance highlight**

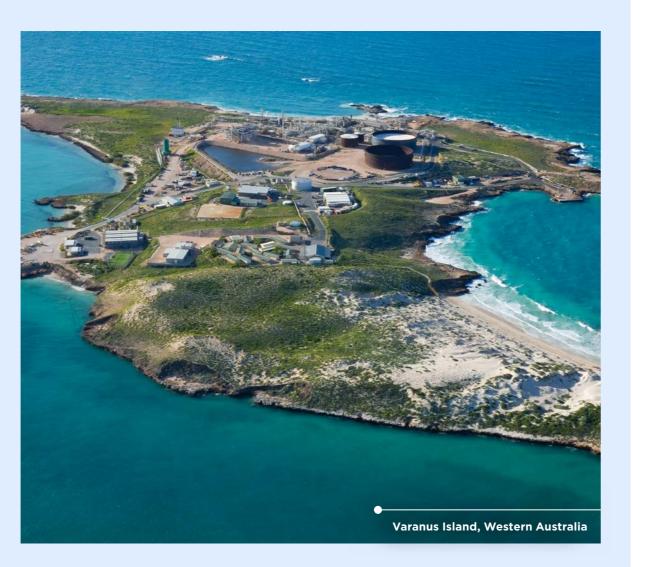
### Varanus Island Fuel Gas Emissions Reduction

The Varanus Island Hot Oil Optimisation Project reduces emissions from the sales gas compressor turbines by up to 20 per cent.

These sales gas compressor turbines are one of the largest sources of emissions at Varanus Island. Fuel gas is supplied to these turbines to:

- Compress the sales gas
- Provide heat to the hot oil system via the exhaust gases.

The Varanus Island Hot Oil Optimisation Project reduces CO2 emissions from these turbines by using Advanced Process Control (APC). The APC optimises the Hot Oil system by simultaneously manipulating multiple process variables within the constraints of the system. This allows the heat from the turbine exhaust to be used more efficiently, reducing fuel gas consumption and subsequently CO2e emissions.



### Electrification and renewables integration

Santos continues to electrify its operations and integrate the use of renewable energy as an alternative to traditional gas-fired or diesel fuel sources. Electrification of facilities with low emissions electricity is identified by the IEA as a key emissions reduction lever needed to meet global Net Zero targets.<sup>2</sup> However, they also acknowledge the importance of ensuring continuous and reliable energy to maintain safe and continuous operations. This is why Santos employs batteries and hybrid systems, and retains existing assets for back-up power.

The Moomba Electrification Project is a \$350 million (gross) three-phase project aimed at simplifying operations and reducing emissions from our Cooper Basin operations. Phase one of the project is 90 per cent complete and front-end engineering design (FEED) activities are progressing for phases two and three. This project could electrify upstream gas compression in the Cooper Basin and integrate a high level of renewable energy through a combination of solar, wind and batteries. The project is estimated to save up to 136 ktCO2e per annum.

In addition to the Moomba Electrification project, we have completed, or are progressing, a number of other projects that will introduce renewable energy and battery power into our operations. These include:

- The GLNG Upstream Electrical Convert project, converting two of the Fairview Hub 4 compressors from gas drive to electric drive
- Installation of solar and battery power at our Cook and Limestone Creek camps
- Approval for a tender to deliver an 80MW behindthe-meter solar farm to support our Roma Gas processing facilities
- A feasibility assessment of expanding the solar farm installed at Port Bonython.

### **Performance highlight**

# Solar and battery system for remote exploration wells

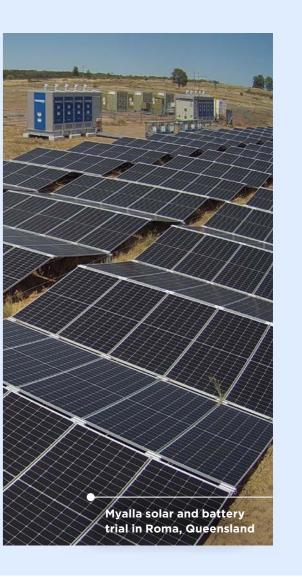
The Myalla trial used a solar and battery system for eight wells to reduce emissions.

This opportunity was developed as an alternative to the traditional solution of diesel or fuel gas powered generators for remote exploration wells. The trial conducted in 2023 used a fully solar and battery system capable of providing reliable zero emission power. The system was implemented at a remote site in our Roma CSG field resulting in a reduction in fuel gas use and reducing emissions by 800 tonnes of CO2e per year.

The outcomes of the trial included:

- Remote renewable power generation with zero emissions for eight exploration wells
- Development of energy modelling for future systems.

Following the success of the trial, three additional solar and battery systems will be implemented in 2024.



2 IEA 2023. The Oil and Gas Industry in Net Zero Transitions.

Corporate Governance

People and culture

Economic sustainability

**Appendices** 

117

#### **Delivering on our Climate Transition Action Plan**

### **Methane emissions**

Methane is recognised as a powerful greenhouse gas and air pollutant, and is estimated to account for almost a third of the warming observed to date.<sup>3</sup> Reducing methane emissions is a key focus area for Santos. We continually review and monitor our methane emissions and recognise they comprise of about nine per cent of our total Scope 1 and 2 emissions. Methane emissions occur from several sources including flaring, venting, fugitive emissions and fuel use. Within the oil and gas industry, the term fugitive emissions refers specifically to minor natural gas losses from operations, for example, from gas-activated valves on pipelines, wells or gas plant equipment.

Through our methane surveys, ongoing assessment, and preventative activity we can report that:

- Our 2023 methane emissions were six per cent lower as compared to 2022, including,
- An eight per cent reduction in emissions from flaring and venting activity
- A four per cent reduction in fugitive methane emissions
- Background methane concentrations measured in the Cooper Basin as part of the second regional mobile methane survey were approximately 1.896 ppm; lower than the global monthly mean (February 2023) of 1.920 ppm
- Background methane concentrations measured in the Port Bonython area as part of the regional mobile methane survey were approximately 1.888 ppm; lower than the global monthly mean (February 2023) of 1.920 ppm.

#### **COMMITTING TO METHANE EMISSIONS REDUCTION**

Santos pursues several initiatives across our portfolio to reduce methane emissions. We recognise the significance of eliminating methane emissions from upstream oil and gas operations as a mitigant for climate change. As a result, Santos has:

- Become a signatory to the Aiming for Zero Methane Emissions initiative
- Officially endorsed the **Zero Routine** Flaring by 2030 initiative.

These commitments show Santos' dedication to be a leader in reducing methane emissions and allow us to join a group of governments, companies and institutions to collaborate and partner together to make necessary steps towards climate change mitigation.

Through joining the Oil and Gas Climate Initiative's (OGCI) 'Aiming for Zero Methane Emissions', Santos strives to reach near zero methane emissions from our operated gas and liquids assets by 2030, continuing our existing strong focus on reducing flare and vent activities and fugitive emissions

Santos' methane intensity in 2022-23 was 0.18 per cent.<sup>4</sup> The OGCI target for 2025 methane intensity is "well below 0.20 percent" and Santos will continue to work to further reduce our methane emissions.

As a signatory to the initiative, we commit to continuing work to reduce unnecessary flaring and venting, continue to repair and detect leaks, transparently report methane emissions on an annual basis, adopt technology as it evolves to avoid methane emissions, and support government in implementing regulations that aim to reduce methane emissions.

Endorsing the 'Zero Routine Flaring by 2030' initiative means that Santos commits to avoiding routine flaring in new oil field developments, as well as ending routine flaring at existing oil production by 2030, where economically viable. Santos will also report on our flaring activity to ensure we are transparent and held to our commitment.



<sup>3</sup> IPCC 2022. Climate Change 2022: Mitigation of Climate Change.

<sup>4</sup> Methane intensity is calculated on a gross operated basis, as the volume of methane emissions divided by the volume of marketed gas.

w Co

Corporate Governance

and safety

ment

People and culture

Commu

nmunity E

Economic sustainability

te Ar

119

Delivering on our Climate Transition Action Plan

### **Performance highlight**

### Methane reduction in action

At Santos, we are committed to reducing our methane emissions. Our actions are demonstrated across the business through projects aimed at reducing our fuel use, flaring, venting and fugitive emissions.

### FLARING REDUCTION AT THE CENTRAL PROCESSING FACILITY IN PAPUA NEW GUINEA

In 2023, utilising technical expertise from the broader Santos asset portfolio, the Papua New Guinea asset team successfully installed and commissioned the overhead compressor package at the Central Processing Facility in the Southern Highlands. The motor-driven, oil-flooded screw compressor, a first of its kind to be operated in our Papua New Guinea asset, captures flash gas emissions from the oil stabiliser units and redirects it through our production compressors for export; this gas would otherwise be flared to atmosphere at the facility. The annual benefit delivered by this technology is a flaring reduction of approximately 18 kt of CO2, the equivalent of removing more than 10,000 cars from the road each year.

### MONITORING FUGITIVE EMISSIONS WITH THE CSIRO

Santos conducts baseline and background methane assessments across our onshore Australian operations to detect potential fugitive sources including natural seepage. These assessments are being delivered through research agreements with the CSIRO that commenced in 2018, with an estimated spend of \$1 million for a 10-year monitoring period. In 2023, this agreement was valued at over \$110,000.

Further to this assessment, Santos also conducts ongoing leak detection and repair activities. In 2023, Santos invested approximately \$1 million to reduce fugitive emissions across our assets including through leak detection and repair programs, continuous monitoring of gas plant equipment and corrective actions to reduce fugitive emissions.

#### NEW WORKOVER RIG REDUCING FLARING AND VENTING ON QUEENSLAND OPERATIONS

In April 2023, the Santos CSG team in Queensland commissioned an upgrade to a workover rig which enabled wells to be worked on while keeping the well shut in under pressure. This way of operating has a three-fold benefit:

- A reduction in emissions from flaring and venting gas normally required to work on wells
- Decreased noise levels
- A significant saving in the amount of diesel used on-site during operations – 81,000L estimated for a year of operations, representing emissions savings in excess of 420 tCO2e per annum.

The introduction of this state-of-the-art rig to perform well intervention operations represents a step-change in emissions reduction from Santos' drilling and completion operations.

Santos is the first operator in Australia to have a rig capable of this kind of operation continuously available for all workovers as part of base business.

By investing in upskilling our staff on this kind of operation and expanding the current capable rig fleet, Santos has an opportunity to employ this technique on other onshore assets, providing a pathway to further emissions reductions from our operations.

#### FLARING REDUCED ON NINGALOO VISION THROUGH COMPRESSOR OPTIMISATION

Gas produced from Santos' Ningaloo Vision fields in offshore Western Australia is processed and used as fuel gas, with the remainder re-injected into the reservoir. In the past, if the gas flow rate exceeds the capacity of the compressors used for re-injection, the remaining gas was flared. The Santos Operations team identified the opportunity to reduce gas flaring by optimising the compressor envelope to allow for increased compressor efficiency and higher gas injection rates. A multi-disciplinary work group was set up to review the compressor operations, test program modifications in a simulated environment and implement the changes on-site.

The result was a reduction in Ningaloo Vision base flaring volumes by approximately 67 per cent.



### MOOMBA COMPRESSOR CHANGEOVER UPGRADE

The gas that is sent down the pipeline to customers from the Moomba Gas Plant requires compression. This compression is done by one of two compressors, which for operational or maintenance reasons, are switched over around two to four times a year. During changeover, there is a safety requirement to flare some of the gas that is in the system. The Santos team sought out a solution to eliminate this flaring and reduce methane emissions. The project, implemented in 2023, enabled both compressors to be switched to online mode at the same time, allowing gas that would have previously been flared to be diverted and processed through the newly operational compressor, before the other unit is shutdown.

Operational update

### **Carbon capture and storage**

### 2023 progress highlights

#### • Eastern Australia Hub:

- Moomba CCS 80 per cent complete with first injection targeted for mid-2024
- MOU signed between Santos, JX and ENEOS to collaborate on CCS and support Moomba CCS Phase 2

#### • Northern Australia and Timor-Leste Hub:

- FEED underway on DLNG Train 1 CCS, Pipeline and Offshore facilities to increase onshore carbon processing capacity for the Barossa Field
- Darwin Liquid CO2 Imports scope has progressed through the early engineering phase
- Multiple partnerships and MOUs signed with customers for the Bayu-Undan CCS project for the storage of third party CO2 in quantities >10 Mtpa

#### Western Australia Hub:

• Reindeer CCS targeting FEED in 1H2024.

**IEA 2023:** "Australia is well-suited to large-scale deployment of CCS to facilitate domestic CO2 abatement and support regional emissions reductions." <sup>5</sup>

At Santos we want to capitalise on this advantage, and we are making real investments to accelerate CCS deployment.

CCS represents a clear road to decarbonisation for Santos. Currently CCS is one of the few technologies that offers significant storage quantities of emissions abatement in the near term, while leveraging Santos' operational expertise and existing asset infrastructure.

Santos is pursuing a three-hub CCS strategy within Australia to give us the ability to store carbon dioxide emitted from our own operations, as well as carbon dioxide that is generated from third parties including:

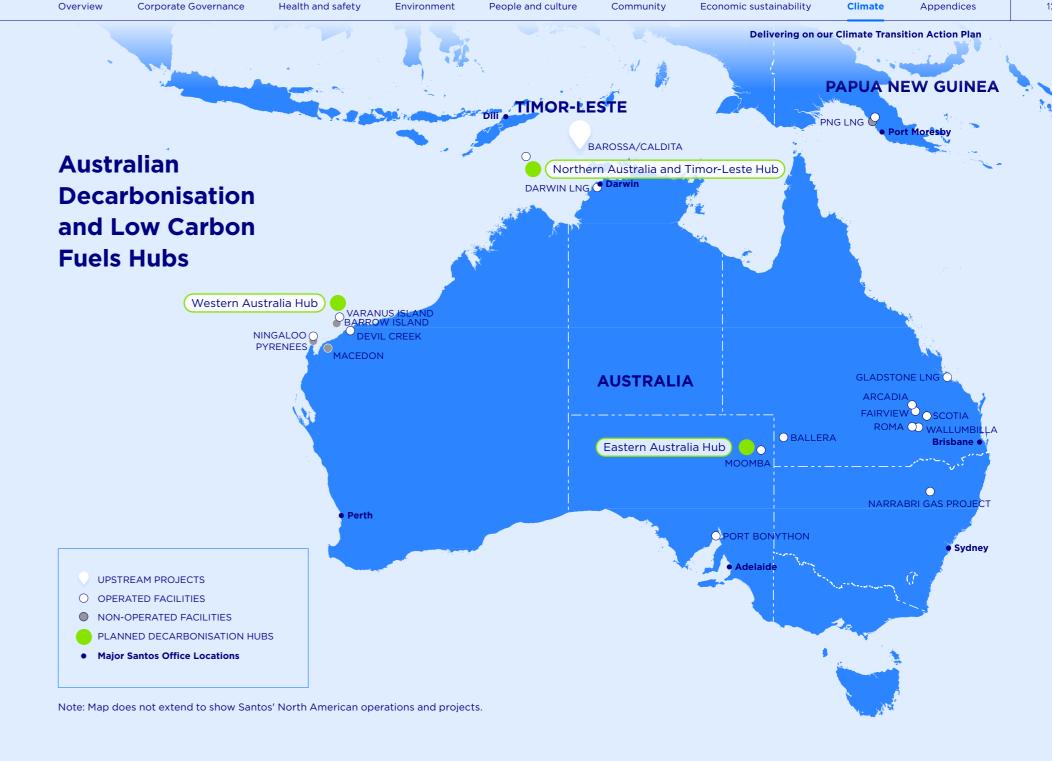
- Significant investment in the Eastern Australian Hub with the Moomba CCS project 80 per cent complete
- Investments to progress CCS projects at our other two decarbonisation hubs in Western Australia (Reindeer) and Northern Australia and Timor-Leste (Bayu-Undan CCS)
- Partnering with companies to invest in the development of technologies that enable the expansion of CCS.

The progression of these hubs will be key to delivering more than 30mtpa of gross CO2e storage by 2040. CCS represents a large-scale, low-cost means of reducing emissions. It also can provide Santos with revenue by providing CO2 storage services to both domestic and international third party emitters. An example of this is the MOU between Santos, JX and ENEOS to import up to 20 MtCO2 per annum from Japan to the Moomba CCS project. This 20 MtCO2 is the equivalent of two-thirds of Santos' Scope 3 emissions. The Eastern Australia and Northern Australia hubs will decarbonise Santos' assets to deliver lower emissions production of the existing upstream gas and liquids business, while also facilitating third party CCS services. The Western Australia hub will be primarily focused on the emissions from third party customers.

Santos is also investing in direct air capture (DAC) technology. If successful, DAC will have the ability to remove CO2 directly from the atmosphere at existing CCS locations, optimising the use of CCS infrastructure when there may otherwise be fluctuation in carbon storage quantities provided by oil and gas production.

Reforms to the Safeguard Mechanism in Australia have increased the need for companies to reduce emissions, and CCS will be an increasingly valuable tool to assist in meeting decarbonisation targets. Adoption of the London Protocol<sup>6</sup> by Australia will assist in attracting international customers, building scale which will assist in delivering efficiencies and technological improvements for the benefit of all customers.

As part of our commitment to being a leading global CCS infrastructure provider, Santos is working with a number of domestic and international parties to develop concepts for future development regarding new decarbonisation hubs within the Asia Pacific region, and is well positioned to expand to CCS with our existing upstream operations in Papua New Guinea and Alaska.



<sup>5</sup> IEA 2023. Australia 2023 Energy Policy Review.

<sup>6</sup> The London Protocol was adopted by the Australian Government in 2023, enabling carbon emissions to be shipped offshore for the purpose of carbon capture and storage outside of Australia.

123

#### **Delivering on our Climate Transition Action Plan**

### **Performance highlight**

### **Moomba Carbon Capture and Storage** safe and reliable monitoring and verification

Centred around the Moomba Gas Plant, the Moomba CCS project is a large-scale hub for the capture and geological storage of CO2.

The Moomba CCS process consists of four main stages:

- CO2 is captured at the Moomba Gas Plant and fed into the main CO2 processing facility where water is removed
- 2 CO2 is compressed into liquid
  - CO2 is transported 50km via pipeline to a storage site
- - CO2 is permanently stored in depleted gas reservoirs.

The use of depleted oil and gas reservoirs distinguishes the Moomba CCS project from many others in operation globally. Combined with over 60 years of Santos' experience operating in the Cooper Basin, including extensive experience re-injecting gas into depleted reservoirs, a simple injection process provides a strong basis for reliable operation.

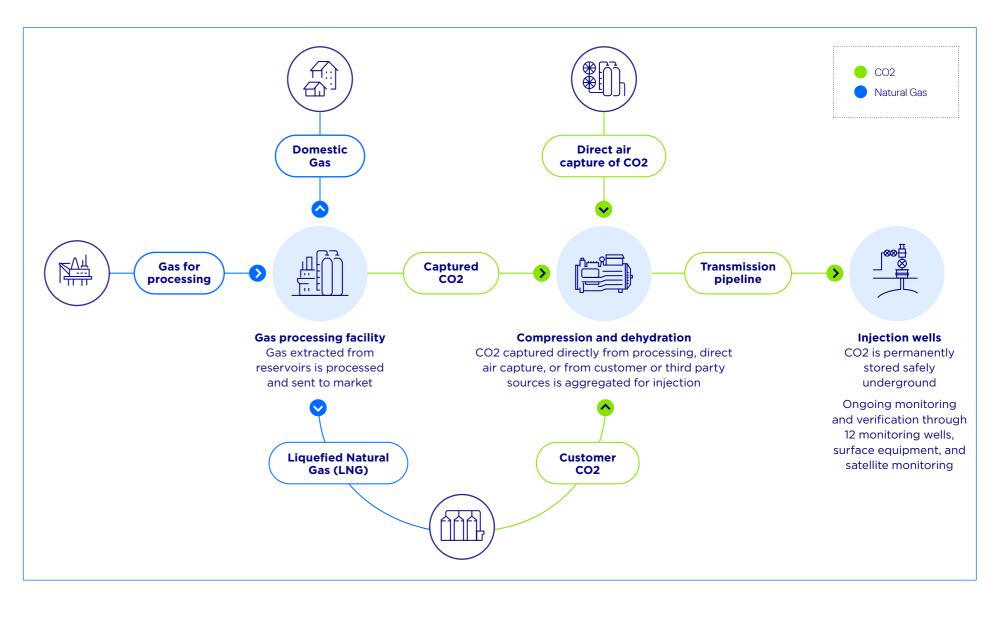
Depleted oil and gas reservoirs are ideal geologic storage sites, providing confidence in the ability to permanently store CO2. Reservoirs that have securely contained natural gas and liquids (including CO2) for tens of millions of years also provide a safe and permanent storage location for the CO2. In addition a monitoring and verification plan, regulated by the South Australian Government, has been developed based on international standards and best practice. The monitoring and verification plan outlines four key elements which include:

- Data gathering during injection
- Monitoring movement of CO2 and confirming containment
- Monitoring the integrity of the wells
- Environmental assurance.

This ongoing activity to monitor and verify CO2 containment over the life of the project will incorporate 12 monitoring wells, surface equipment and satellite monitoring. Monitoring commenced in 2023.



### How CCS can enable CO2 to be safely and permanently stored underground with the potential to create a circular carbon economy



125

### Santos' planned decarbonisation hubs with indicative status and timeline<sup>7</sup>

**Moomba CCS** 

**Project location:** South Australia

Annual gross CO2 storage potential: 20 MtCO2e

**FID:** 2021

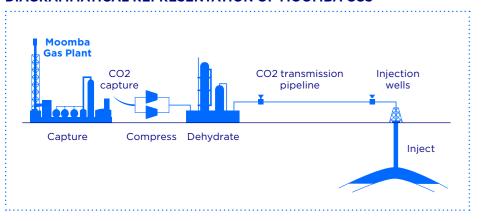
First injection timing estimate: mid-2024

Our Moomba CCS project execution continued in 2023, with construction now 80 per cent complete.

Moomba CCS is a world-class, commercial-scale project which will capture CO2 reservoir emissions at the Moomba Gas Plant and transport and store the CO2 in depleted reservoirs in the Cooper Basin. Santos is exploring new sources of CO2 from third parties and if made available, there is the capacity to permanently store CO2 in the Cooper Basin at a rate of 20mtpa for 50 years.

The Moomba CCS project is designed to leverage existing processing capability at Moomba and existing infrastructure associated with depleted reservoirs in the Cooper Basin. The project is targeting full life cycle cost of approximately \$24 per tonne of CO2 which would deliver one of the lowest cost CCS projects globally. It is also expected that Phase 1 will store CO2 from some of the direct air capture trials.

#### DIAGRAMMATICAL REPRESENTATION OF MOOMBA CCS



#### **Darwin and Bayu-Undan CCS**

**Project location:** Northern Australia / Timor-Leste **Annual gross CO2 storage potential:** 10 MtCO2e

Targeted FID: 2025

First injection timing estimate: 2028

Front end engineering design (FEED) continued throughout 2023 for the Bavu-Undan CCS project.

The project will utilise the existing Bayu-Undan to Darwin pipeline and the offshore Bayu-Undan platform. Potential CO2 sources include natural gas developments and industrial sources in Northern Australia with customers and investors in Korea and Japan also interested in the project for emissions reduction from their activities. Bayu-Undan CCS will provide potential to reduce Scope 1 emissions from the Barossa Field, making it a low emissions intensity project and contributing to it being a net-zero reservoir emissions project from first gas.<sup>8</sup>

Four MOUs for the proposed storage of CO2 emissions from third parties at the Bayu-Undan CCS project have been signed, underpinning initial project development through FEED. The MOUs indicate that demand for CO2 storage at Bayu-Undan CCS could be in excess of 10 Mtpa.

The nearby Greenhouse Gas storage permit G-11-AP adds to the available storage quantity in the vicinity of Bayu-Undan, providing an option for future hub expansion.

Darwin Liquid CO2 import scope has progressed through the early engineering phase in 2023, while feasibility studies evaluating international CO2 import via ship for injection at Bayu-Undan have commenced.

In 2023, the Australian parliament passed legislation to adopt the London Protocol amendments and enable international transfer of CO2. Engagement continues with Timor-Leste and the Australian Government to progress an arrangement on transportation of CO2 across international boundaries, in accordance with Australian Government obligations under the London Protocol.

#### Western Australia CCS

Project location: Western Australia

**Annual gross CO2 storage potential:** Up to 5 MtCO2e

Targeted FID: 2025

First injection timing estimate: 2028

The Reindeer CCS project offers a potential low-cost carbon storage solution with an injection rate of up to five million tonnes of CO2e per annum, through repurposing of existing infrastructure.

The nearby Greenhouse Gas storage permit G-9-AP, awarded in 2022, enhances the storage capacity in the vicinity of Reindeer, offering potential for future hub expansion. Further evaluation of other regional depleted reservoirs to identify additional storage options and support future expansion plans is also underway.

This hub offers capacity for third party industrial CO2 sources and natural gas developments in the Pilbara region of Western Australia, as well as capacity for international CO2 imports.

Santos is leading multiple studies, together with regional and international emitters, exploring end-to-end solutions to capture, transport and store CO2 emissions in our CCS reservoirs and has executed heads of agreements with Western Australia regional and international emitters.

Santos is targeting FEED on WA CCS (Reindeer CCS) in 1H2024, a project which sources and sequesters over 1.5 million tonnes per annum of CO2 from third party plants in the Pilbara region that are existing or in construction. Concurrently, Santos has entered into agreements that:

- Sanction the intent of the parties to further progress all aspects of the FEED engineering scopes required to capture, transport (through a new onshore pipeline) and store CO2 in Reindeer CCS
- Provide a framework for the commercial relationship to be finalised at FID
- Agree a time frame required to meet 2028 first injection.

#### **Other CCS Opportunities**

Developing decarbonisation hub concepts globally with a key focus on supporting large-scale emissions reduction in the Asia Pacific region.

Santos is working on developing concepts regarding new decarbonisation hubs within the Asia Pacific region. Santos is well positioned to expand CCS within our existing upstream operations in Papua New Guinea and Alaska.

Throughout 2024 we will continue to work on identifying investment opportunities and pathways to de-risk projects. This will be done through feasibility studies, screening of regional storage options, and identification of third party emitters who would benefit from the establishment of a proximal decarbonisation hub.



<sup>7</sup> Future dates are target dates based on current understanding, not forecasts. 'Annual gross CO2 storage potential' is based on our current understanding of the reservoirs, injection rates, and potential CO2 sources and this may change in the future.

<sup>8</sup> Due to estimated timing variances between projects, high-quality offsets are planned to be employed to offset Barossa emissions until Bayu-Undan CCS first injection.

127

Operational update

### **Carbon solutions**

#### 2023 progress highlights

- Progressed five nature-based projects to qualify for generation of emissions reduction units in both voluntary and compliance markets globally
- Commenced field trials for a 0.25 tpd direct air capture (DAC) unit in the Cooper Basin.

Santos recognises the need to prioritise emissions reductions at the source. Our decarbonisation activities prioritise avoiding and reducing the emissions generated within our operations, with residual emissions sought to be addressed through investments in high-quality<sup>9</sup> emissions reduction projects and acquisition of emissions reduction units.

### **Our nature-based solutions** approach

Santos is building a portfolio of nature-based projects that will deliver real emissions reductions and tradeable emissions reduction units. We prioritise nature-based projects that are close to our operational footprint, benefit local Indigenous people, and fulfil genuine environmental and community needs.

Santos has core expertise in the design, execution, delivery and operation of nature-based sequestration methods. Santos has progressed five nature-based projects with the Australian Government, the Gold Standard Foundation and the American Carbon Registry:

- Waddy Brae-Fairview-Springwater Regeneration Project, Queensland
- Summer Hills Soil Carbon Project, Queensland
- Broandah Soil Carbon Project, Queensland
- A project in collaboration with Alaska Native landowners
- Markham Valley AR Project, Papua New Guinea.

Santos' nature-based portfolio now has the potential to generate over 10 million tonnes of emissions reduction.

Our projects focus on outcomes that are permanent. robustly quantified and compatible with a transition to Net Zero.10

### **Post-combustion capture**

Post-combustion capture (PCC) involves the separation and concentration of CO2 from exhaust gases generated by the combustion of fuel. The technology is based on proven techniques used in hydrocarbon processing industries for decades and can be retrofitted to existing plant and equipment, providing opportunities for CO2 capture.

PCC presents an opportunity for Santos to reduce Scope 1 emissions associated with fired equipment such as gas turbines, boilers and heaters, while providing a source of CO2 for carbon capture and storage, the generation of low carbon e-methane or other industrial uses. PCC will also be an enabler for decarbonising downstream users, reducing Scope 2 emissions and supporting future expansion of CCS.

Santos is currently exploring PCC projects in the Cooper Basin and Wilga Park Power Station in New South Wales. Santos is also working with several customers to assist them in better understanding PCC technology, which will be an enabler to capturing customer emissions and utilising CCS at our key CCS hubs.

### **Direct air capture**

Direct air capture is a technology designed to capture carbon dioxide directly from the atmosphere. By capturing CO2 from the atmosphere and storing it permanently, it provides a pathway to offset unavoidable CO2 emissions or remove legacy emissions from the atmosphere. Alternatively, captured CO2 could be used to create low carbon products, such as synthetic fuels, which could support decarbonisation of hard-to-abate sectors of the economy.

According to the International Energy Agency (IEA), DAC is expected to play an important and growing role in reaching Net Zero emissions. In the IEA's Net Zero Emissions by 2050 Scenario, DAC technologies capture around 980 MtCO2 in 2050, emphasising the long-term need for negative emissions technologies at scale, in parallel with reducing emissions directly at the source across all sectors of the economy.11

In 2021, Santos partnered with the CSIRO to conduct a field demonstration of DAC units utilising Carbon Assist<sup>™</sup> technology. 12 The units were initially trialled in Perth and have since moved to locations close to Santos' Moomba CCS site. Commissioning of the first 0.25 tonne per day unit was completed in Q3 2023, with delivery to Moomba and the initial field trials commencing in Q4 2023. The next phase of the project will involve scaling the DAC technology to one tonne of CO2 per day, on our pathway to achieving a cost target which is much lower than the average global costs of DAC technology today.

When combined with the low cost of Moomba CCS and the large-scale carbon storage capacity of the

Cooper Basin - up to 20 million tonnes of CO2 annually for 50 years - DAC could be the start of an exciting phase for Santos' carbon management services. When DAC, CCS and electrolysers powered by renewable electricity are combined, we also have the building blocks for e-methane, a drop-in, lower carbon alternative to natural gas.<sup>13</sup> Refer to the Low carbon fuels hubs section for more information on e-methane.

"Cutting back on our carbon emissions alone won't reverse the growing impacts of climate change; we also need to remove the CO2 that we've already put in the atmosphere which nearly every climate model makes clear is essential to achieving a net-zero global economy by 2050."

Jennifer M. Granholm, US Secretary of Energy

### **Application of Emissions Reduction Units**

Emissions reduction units will be applied to support compliance obligations and corporate targets. Due to our ongoing emissions reduction efforts, Santos was not required to surrender emissions reduction units against our greenhouse gas emissions during 2022-23.



- 11 IEA. Direct Air Capture 2022: https://www.iea.org/reports/ direct-air-capture-2022.
- 12 Santos Ltd. Santos Partners with CSIRO on development of new technology to negate carbon emissions: https://www.santos. com/news/santos-partners-with-csiro-on-development-of-newtechnology-to-negate-carbon-emissions/
- 13 Nemmour et al 2023, Green Hydrogen-based E-fuels (E-methane) E-methanol, E-ammonia) to support clean energy transition: A literature review, International Journal of Hydrogen Energy, Vol 48, Issue 75, pp 29011-29033.

- 9 Santos undertakes an internal screening process of all projects with potential to generate carbon offsets to ensure they meet minimum requirements. This includes location, whether the project is held with an approved standard, the project method, and co-benefits for the community, environment and/or local Indigenous communities.
- 10 ICVCM Assessment Framework: https://icvcm.org/assessmentframework.

129

### **Performance highlight**

# Markham Valley Afforestation and Reforestation Project, Papua New Guinea

Santos' Markham Valley afforestation and reforestation project in Papua New Guinea<sup>14</sup> is creating positive environmental impacts and contributing to the local community. The project employed more than 150 people during 2023 and provides biodiversity co-benefits through plantation of mixed native species and fruit trees. Santos has an ambition to expand the project from its current 4,000 hectares of plantations to 12,000 hectares by 2028. The project is registered with Gold Standard to generate emissions reduction units.





Operational update

### Low carbon fuels hubs

### 2023 progress highlights

- Entered into an agreement with Osaka Gas for pre-FEED work on a demonstration scale project to produce carbon neutral e-methane from green hydrogen
- Signed agreements with major
   Japanese utilities Toho Gas and Tokyo
   Gas, to investigate the potential
   for producing carbon neutral
   e-methane in the Cooper Basin.

Santos aims to deliver low-cost, low carbon fuels to the market from its three low carbon fuels hubs.

Santos continues to progress our CCS projects and explore project concepts and technologies which will support potential delivery of low carbon fuels to our customers.

Santos' low carbon fuels hubs have several advantages including access to existing infrastructure, renewable energy resource potential and well understood geology and future carbon storage reservoirs. These advantages are key in delivering low-cost and low carbon fuels. Each low carbon fuels hub is strategically co-located with Santos' CCS projects and is supported by our investment in CCS. This approach will help accelerate the development of affordable, low carbon fuels as market and customer demand evolves.

Our ambition is for each low carbon fuels hub to provide CCS and carbon solutions to hard-to-abate

sectors and customers. It is envisaged that each low carbon fuels hub will expand as industry increasingly recognises the strategic importance of CCS to enable societal decarbonisation. An example of this are the four MOUs executed with potential upstream gas and LNG projects offshore the Northern Territory and in Darwin, for CO2 supply in excess of 10 million tonnes per annum to Bayu-Undan CCS.

The low carbon fuels hubs will seek to leverage our advantages for low carbon fuel production. Santos is currently completing various studies into e-methane, which is a potential low carbon fuel that could enable the use of existing gas infrastructure, avoiding significant capital outlay for transmission and distribution. E-methane is produced from green hydrogen and recycled CO2 via a process known as methanation.



14 Formally known as the PNG Biomass Project.

131

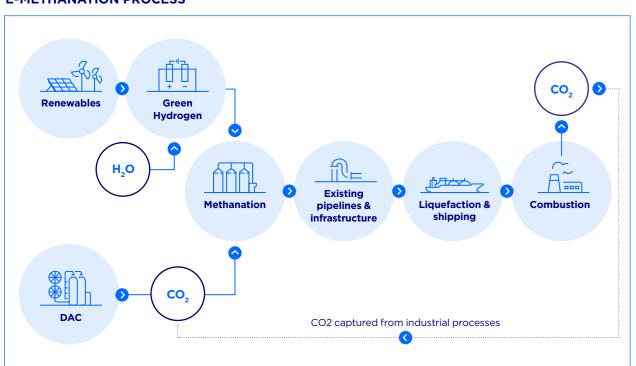
### E-methane

Gas will play a leading role in the transition to a decarbonised future<sup>15</sup> and Santos is excited to be progressing a new business opportunity that seeks to leverage our assets and capabilities to deliver lower carbon energy.

Throughout 2023, Santos further progressed ambitions to create a lower carbon energy future by undertaking pre-Front End Engineering and Design (pre-FEED) work on a demonstration scale project to produce carbon neutral e-methane from green hydrogen and CO2. Green hydrogen is generated through water electrolysis powered by renewable energy. CO2, instead of being emitted

in to the atmosphere, is combined with green hydrogen through a methanation process to produce e-methane. When e-methane is combusted, the CO2 originally captured from the atmosphere is returned to the atmosphere making it effectively a Net Zero fuel. The pre-FEED work includes renewable power and carbon capture infrastructure studies, site selection for e-methane and green hydrogen plants. optimisation of e-methane production efficiency and processes, and further detailed assessment of costs, schedules, feasibility, and risks. In addition, Santos is progressing a study for a potential larger (>50 Terajoule/day) scale e-methane project with a consortium of leading Japanese gas utility companies, including Tokyo Gas, Toho Gas and Osaka Gas.

#### E-METHANATION PROCESS



### Other low carbon fuels projects

As global energy markets continue to evolve, demand for existing and new products will continue to shift and Santos will continue to screen opportunities, progress studies and trial technologies to support decarbonisation, while also providing reliable, low-cost and low carbon fuels. To enable progression of these low carbon fuels projects the IEA has identified the importance of consumers working with the suppliers to create markets for these low carbon fuels. 16 At Santos we are committed to working with our customers to find solutions to their decarbonisation goals. See 'Supply Chain Collaboration' for more detail. Additionally, policy makers are key to providing improved certainty on demand, and clarity on certification and regulation to allow projects to progress to implementation phase.

Santos can see a material long-term opportunity for low carbon fuels as markets continue to develop. We are developing a portfolio of decarbonisation technologies which have the potential to unlock low carbon fuels production. We will continue to focus on piloting a range of technologies to establish feasibility and provide concepts before commercialisation and scale up.

### Operational update

### **Supply chain collaboration**

Santos' Scope 3 emissions relate to the indirect emissions throughout our supply chain. We are committed to working with our suppliers and customers to reduce their emissions.

### 2023 progress highlights

 In 2023, Santos performed detailed analysis of our Scope 3 emissions to give us a better understanding of the key sources of supply chain emissions, and how we can influence them

We identified that supplier emissions comprise 14 per cent of our total Scope 3 emissions. In response, we have committed to working with our suppliers to refine our understanding of their emissions, which will allow us to establish our baseline and set a Scope 3 supplier emissions target

For further information on our Scope 3 emissions and analysis, refer to Ambitions, targets and metrics.

### Working with our customers

Santos is working with our customers to reduce the emissions generated from the downstream use of our products, specifically through potential supply of low carbon fuels and CCS services which could enable customer reductions in their Scope 1 and 2 emissions and Santos' Scope 3 emissions.

In 2023, Santos proactively reached out to our customers to more accurately establish our Scope 3 emissions. We regularly engage with our customers to discuss decarbonisation options, helping to drive demand for low carbon fuels hubs while progressing opportunities to decarbonise the wider economy. Discussions with customers remain commercial-inconfidence until executed; however, examples of engagements with customers during 2023 include:

- Engagement with a range of industrial customers including aluminium refining and steel production sectors, to investigate switching from coal to gas with associated CCS services
- MOU signed with an international steel company to pursue decarbonisation opportunities
- Working with international LNG customers on involvement in Australian CCS projects
- Offering third parties access to CCS services to support decarbonisation of industrial plants and mining sites
- Engaging with other regional emitters to develop CCS value chains from Japan, Korea, and Singapore to Australia, utilising Santos' three decarbonisation hubs.

Concepts around each low carbon fuels hub continue to mature, with development of our carbon capture and storage projects facilitating discussions with customers to utilise CCS. Santos has executed a number of preliminary agreements with existing customers giving Santos the confidence to expand our CCS facilities and to progress opportunities which integrate low carbon fuels into our value chain.

We believe our gas and LNG customers of today will be the low carbon fuels customers of tomorrow as they are increasingly seeking lower carbon products and carbon management services and solutions.

### **Working with our suppliers**

In 2023 Santos' procurement teams remained focused on working with our suppliers to reduce their emissions, including:

- The sourcing of renewable remote-site power systems
- Securing goods and services for ongoing field electrification
- Early contractor involvement to enable facilities scale CCS.

Santos has upskilled procurement and supply chain teams internally to drive targeted support of our net-zero target. Externally, Santos has regular strategic engagement with our suppliers to proactively identify global and local trends that can be considered within our operations. With respect to supply chain (Scope 3) upstream emissions, which are typically our suppliers' Scope 1 and 2, Santos continues to refine our methodology for how these emissions can be measured, assured and mitigated.

<sup>15</sup> Australian Energy Producers 2023. The Future Role of Natural Gas in Australia and the Region.

<sup>16</sup> IEA 2023. World Energy Outlook 2023.

133

#### **Delivering on our Climate Transition Action Plan**

### **Efficient capital allocation aligned** with our climate transition activities

GRI 201-2

### 2023 progress highlights

 Over \$170 million of capital invested in Climate Transition Action Plan, an increase of 36 per cent on 2022.

### **Capital allocation and governance**

Santos' capital allocation processes are underpinned by a disciplined operating model to drive value and consistently generate free cash flow throughout the commodity price cycle.

Santos balances investing in the energy transition through our CTAP projects with sustaining our gas and liquids business to meet ongoing customer demand and safely manage our assets.

CTAP activities and associated projected capital expenditure are captured as part of our long-term planning framework. This ensures that CTAP activities are fully integrated within our regional business unit planning structures. In addition, all CTAP investments are subject to a rigorous internal corporate assurance process, which ensures that investments meet a number of minimum economic requirements and

alignment with strategic objectives. Santos applies the same stringent economic criteria to CTAP projects, including IRR and payback period, as we do to traditional gas and liquids projects.

### **Investment criteria**

Our economic analysis processes consider the greenhouse gas emissions from all projects and the impact that a carbon price would have on our business. Santos has been incorporating greenhouse gas emissions and carbon pricing into our annual and longer-term strategic and financial planning processes for a number of years. Our current carbon planning price assumption projects a carbon price of \$75 per tonne of CO2e (nominal) in 2030. The carbon price assumptions are refreshed annually, along with other corporate economic assumptions.

### **Our investment in CTAP activities**

Capital will continue to be allocated to fund delivery of climate transition activities. In 2023, over \$170 million of capital was spent on CTAP initiatives, increasing from approximately \$125 million in 2022. There is potential to spend over the next decade:

- \$40 million for the sanctioned Moomba CCS project (of a total project cost of \$220m)
- Potentially up to \$500 million for energy efficiency projects

• Potentially up to \$3 to \$4.5 billion for other decarbonisation and low carbon fuels hubs (depending on working interest, customer demand and value accretion) and nature-based offset projects. This range is expected to evolve as the CTAP program matures.

It is expected that investment in our transition activities will initially focus on decarbonisation projects, laying the foundation to support increased investment in low carbon fuels projects as technologies develop and customer demand evolves.

#### **HOW SANTOS INCORPORATES** CLIMATE-RELATED FACTORS INTO ECONOMICS

Santos has a robust corporate assurance framework against which all significant capital investment decisions are assessed.

Underpinning economic analysis includes the following climate-related factors:

- Alignment with our strategic target of net-zero Scope 1 and 2 emissions by 2040
- · Sensitivity testing associated with safeguard baseline assumptions for Australian assets, representing potential future climate scenarios where Government policy is revised to drive more immediate emissions reductions.



Corporate Governance

People and culture

Economic sustainability

**Appendices** 

135

**Delivering on our Climate Transition Action Plan** 

### **Supporting a just transition**

For 70 years, Santos has been safely and reliably developing resources across the world. As a result of our company's longevity, we have seen many projects through their entire cycle.

At Santos, a project's end-of-life phase has focused on a just transition for our employees, a sustainable future for the communities in which we operate, and the rehabilitation of the environment in which we work.

For Santos, the move to a lower carbon world is a continuation of the just transition that has always been part of how we work. Over the next 30 years, the energy transition will demand a structural shift in the way that the world generates and consumes energy. However, a just transition also requires attention to energy security and affordability. In addition, the Paris Agreement acknowledges the need to balance the reduction in emissions with "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities."17

Santos references principles from Ipieca to guide our role in facilitating a just transition.

As we transition to the delivery of lower carbon energy, Santos recognises that new technologies and alternative approaches will change the way we conduct our business. We are committed to ensuring a just transition for our customers, shareholders, our employees and for the communities we operate in, and who benefit from our operations.

Santos supports improving outcomes for our employees, communities and environments and

measures these contributions against the United Nations Sustainable Development Goals. How we do this is outlined in more detail in the Corporate Governance section of this report.

As our business evolves and adapts to change, we are keenly aware of the impacts on assets, people and contribution to local community. We have several processes in place that ensure we consider this is our strategy and approach. These include:

- Ensuring our employees have access to continued opportunity and growth through employee development programs such as the Technical Development Program, our LEAP curriculum and our leadership development programs. Details on these programs and the outcomes can be found in the People and Culture section of this report
- Seeking to repurpose infrastructure and facilities wherever possible to support decarbonisation through carbon capture and storage, which will also provide the platform for low carbon fuels. This is outlined in our Decommissioning Management Procedure
- Understanding the impacts to communities and small businesses local to our operations through consultation, engagement and opportunity identification in line with our 'Local and Indigenous Communities' policy. Further detail on our actions surrounding community consultation and engagement can be found in the Community section of this report.

#### **IPIECA PRINCIPLES OF A JUST** TRANSITION18

- · Respect the rights of communities and workforces, including in global supply chains
- Address impacts on those who currently depend on the oil and gas industry for jobs and energy, or benefit from its social investments
- Address impacts of new types of business that reduce carbon and develop renewables
- Promote long-term opportunities for decent work and sustainable livelihoods
- Make lower carbon energy affordable and reliable for developing nations as well as developed countries
- Avoid penalising poor, vulnerable and historically disadvantaged people, and promote social equity in the distribution of low carbon energy benefits
- Fulfil the 2015 Paris Agreement statements on just transition, and leave no-one behind in a world aspiring to a net-zero future
- Support UN Sustainable Development Goals that are relevant to a just transition.

### **Performance highlight**

### **Just transition**

Bayu-Undan has had a 20-year history of providing natural gas for clients across Asia, while supporting local jobs across Timor-Leste. Bayu-Undan is now in a new phase of life, transitioning to play a critical role in decarbonisation through transformation into a carbon capture and storage site<sup>19</sup> - which would be one of the largest in the world, once in operation.

Over the lifespan of the Bayu-Undan project. Santos has invested in Timor-Leste and its people. Over \$25 billion has been injected into the Timor-Leste economy through production revenue and taxes. Santos has also implemented and overseen training and employment of the local workforce and the engagement and contracting of local companies.

Santos and Bayu-Undan contractors employ 342 local Timorese people. In the past five vears, the number of Timor-Leste nationals transitioning from semi-skilled roles to skilled positions has risen from 66 to 92, and upskilling to a professional level has increased from 41 to 52. For Timor-Leste nationals in long-term roles, Santos ensures they have training plans in place which outline their pathway for upskilling and development.

In action, some examples of this include:

- Providing Operator training based on Santos' Offshore competency framework for all 19 Operations Technicians, leading to leadership opportunities or more senior technical positions
- Training 40 Timorese catering and hospitality staff, with eight of them achieving lead positions as head chefs and cooks
- Certifying the first five Timor-Leste nationals as non-destructive testing (NDT) Inspectors through a training program delivered within the NDT and Inspections Services scopes
- Delivery of Santos and contractor training programs to the employees in the Engineering Hub based in Dili, so that work scope previously

completed in Australia can be carried out locally in Timor-Leste.

This investment in Timor-Leste and its people is continuing through the transition from a producing gas field to a regional CCS hub. 56 Timor-Leste nationals are involved in the Bayu-Undan decommissioning planning work and the CCS concept study. The Engineering Hub in Dili continues to support other Santos assets across Western Australia, Moomba, Queensland, and Papua New Guinea. The opportunity for Bayu-Undan to become a regional CCS hub will create a potential new industry and revenue stream for Timor-Leste, utilising existing infrastructure and providing ongoing jobs in both Timor-Leste and Darwin.



19 Subject to approvals and FID.

<sup>17</sup> United Nations Framework Convention on Climate Change. Paris Agreement: https://unfccc.int/process-and-meetings/ the-paris-agreement/.

<sup>18</sup> Ipieca statement on just transition: <a href="https://www.ipieca.org/work/">https://www.ipieca.org/work/</a> people/just-transition/ipieca-statement.

AMBITIONS,

TARGETS AND METRICS

Santos' emissions reduction ambitions, targets and metrics

Overview of Santos' emissions sources

Emissions calculation and reporting



i lealtii ai

alth and safety

Ped

ole and culture

Comm

Economic sustai

Clima

e Appendi

Ambitions, targets and metric

# Santos' emissions reduction ambitions, targets and metrics

GRI 305-5

	Target	Detail	Metric	Status		
2025	Target to reduce emissions across the Cooper Basin and Queensland by more than five per cent	Target set in 2018. Applies to gross operated emissions from all Cooper Basin and Queensland assets from the delivery of a suite of operational efficiency projects.  Economically reduce emissions by more than five per cent across operations in the Cooper Basin and Queensland from the 2016-17 fixed baseline of 5,875 kilotonnes of gross operated CO2e by 2025	Basin and Queensland assets from the delivery of a suite of nal efficiency projects.  cally reduce emissions by more than five per cent across ns in the Cooper Basin and Queensland from the 2016-17			
	Target to grow liquefied natural gas exports to at least 4.5 million tonnes per annum	Target set in 2018. Applies to the equity share of liquefied natural gas exports from our entire portfolio. Grow liquefied natural gas exports to at least 4.5 million tonnes per annum by 2025	Over 4.5 million tonnes per annum of liquefied natural gas exports by year-end 2024	Completed in 2021 and maintained through to present.  See our 2022 Climate Report for further detail on achieving the delivery of this target		
	Target to assess/invest in CCS	Target set in 2018. Assess the feasibility and, if feasible, invest in technology and innovation which can deliver a step-change in emissions by 2025	Final investment decisions on Moomba CCS project by year-end 2024	Completed in 2021.  See our 2022 Climate Report for further detail on achieving the delivery of this target		
2030	Target to reduce Scope 1 and 2 emissions by 30 per cent	Target set in February 2022. Applies to Santos' entire post-Oil Search merger portfolio on an absolute and equity share basis 30 per cent Scope 1 and 2 emissions reduction by 2030 from the combined Santos and Oil Search 2019-20 financial year baseline of 5.9 MtCO2e, adjusted for inclusion of the Bayu-Undan and Darwin LNG assets for the full 2019-20 financial year at 68.4 per cent equity	Portfolio-wide emissions reduction to 4.1 MtCO2e or less (including by direct abatement and off-setting) by year-end 2029	Santos' Climate Transition Action Plan (CTAP) provides a cotential pathway Santos is currently following that will allow us to achieve our 2030 targets. There will be natural fluctuations along the path to our emissions reduction targets due to production variations and the progression of CTAP activity. However, Santos is planning to spend significant capital over the next decade to ensure we reach		
	Target to reduce Scope 1 and 2 emissions intensity by 40 per cent	Target set in February 2022. Applies to Santos' entire post-Oil Search merger portfolio on an absolute and equity share basis. Intensity is calculated by dividing Scope 1 and 2 equity share emissions by equity share of production over the same period. 40 per cent emissions intensity reduction by 2030 from Santos' 2019-20 financial year baseline of 55 kilotonnes of CO2e/mmboe adjusted for inclusion of the Bayu Undan and Darwin LNG assets for the full 2019-20 financial year at 68.4 per cent equity	Portfolio-wide emissions intensity of 33,000 tonnes of CO2e/mmboe by year-end 2029	this, and other emission reduction goals		
	Target to reduce customers' emissions (Santos Scope 3) by at least 1.5 MtCO2e pa from the supply of low carbon fuels and carbon management services	Target set in 2022 and updated in 2023. Santos will actively work with new and existing customers to reduce their emissions by at least 1.5 million tonnes per annum by 2030 through the supply of low carbon fuels and carbon management services	Demonstrable sustained displacement of customer emissions by at least 1.5 million tonnes per annum by year-end 2029 through the supply of low carbon fuels and carbon management services	Santos is working with third parties to develop low carbon fuels supply chains to reduce customer emissions. Opportunities have been identified at each of Santos' three decarbonisation and low carbon fuels hubs and our portfolio has the flexibility to adapt, which puts us in a strong position to achieve this target		
2040	Target of net-zero Scope 1 and 2 emissions	Target set in 2021. Net-zero Scope 1 and 2 emissions by 2040	Scope 1 and 2 equity emissions at net-zero (including direct abatement and off-setting) by year-end 2039	Santos' Climate Transition Action Plan (CTAP) provides a potential pathway Santos is currently following that will allow us to achieve our 2040 emissions reduction target. Santos is planning to spend significant capital over the next decade to ensure we reach this, and other emissions reduction goals		

Economic sustainability

**Appendices** 

Ambitions, targets and metrics

### **Overview of Santos' emissions sources**

We report our greenhouse gas emissions in three categories, in accordance with the global standards established in the Greenhouse Gas Protocol.1

Santos' material categories

Category 10

**Processing of** 

sold products

End-of-life treatment

of sold products

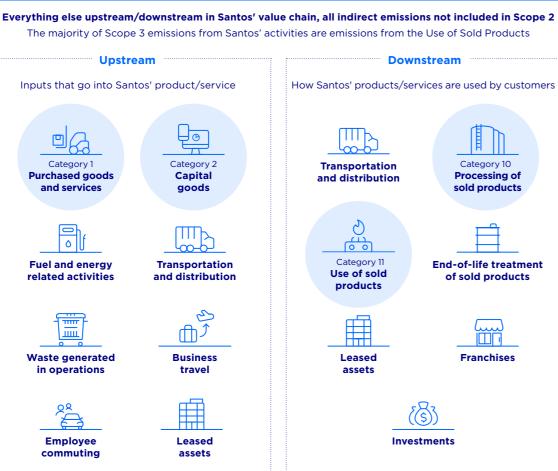
Franchises

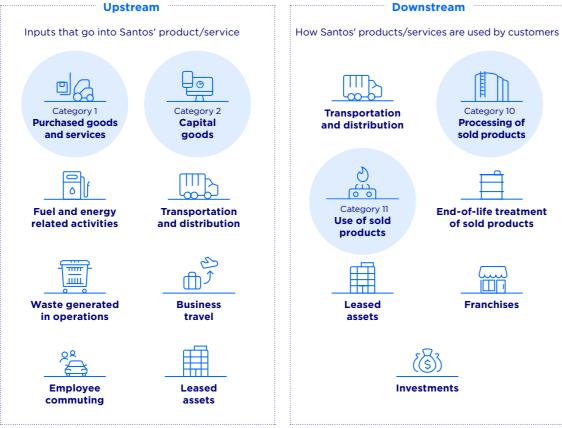
**Downstream** 

### Scope 1 How we produce our products and services Direct emissions from sources that Santos owns or controls, due to fuel combustion, flaring, venting, CO2 removal and fugitive emissions Company facilities Company

vehicles







Scope 3

### **Emissions calculation and reporting**

Santos' principal reporting framework for emissions is Australia's comprehensive greenhouse gas reporting scheme established under the National Greenhouse and Energy Reporting Act (2007) (NGER). NGER is supported by the *National* Greenhouse and Energy Reporting (Measurement) Determination (2008) (NGER Determination), which specifies methods for calculating greenhouse gas emissions and energy data. Santos applies NGER methodologies to emissions calculation and disclosure for all operated assets, unless the asset is located in a jurisdiction that has a compliance emissions reporting framework, such as the United States Environmental Protection Agency's Greenhouse Gas Reporting Program.

### **Australia's Safeguard Mechanism**

The Safeguard Mechanism places a cap (baseline) on cost-free emissions from Australian facilities emitting greater than 100 kilotonnes of CO2e annually. The annual emissions for each facility are compared against the facility's baseline, and responsible entities must surrender Australian Carbon Credit Units (ACCUs) in an amount equivalent to any exceedance for the year. From the period of the commencement of the Safeguard Mechanism up to, and including the 2022-23 compliance year, each of the facilities under our operational control were below their designated facility baseline.

In September 2022, the Australian Parliament passed the Climate Change Act 2022, which provides a commitment to achieve an emissions reduction target of 43 per cent below 2005 levels by 2030, and a netzero emission target by 2050. With effect from 1 July 2023, the Government has reformed Australia's Safeguard Mechanism, with baselines being calibrated at a level that will result in these facilities delivering a proportional share of the national 2030 emissions reduction target. Santos will continue to maintain compliance under all climate legislation in the jurisdictions we operate within. Under the revised Safeguard Mechanism we will maintain compliance through reduction of emissions of the included facilities in line with legislative requirements, or via the acquisition of Safeguard Mechanism Credits or ACCUs.

### **Fugitive emissions**

Santos calculates fugitive emissions across our operated assets in accordance with the compliance reporting framework that applies to the asset. The fugitive calculation methodology is based on component activity-based emission factors, with separate emission factors for wells, produced water, pipelines, gathering and boosting stations, storage, natural gas and liquids processing facilities, offshore platforms, and LNG facilities. In 2022-23, our gross operated fugitive emissions were approximately 0.2 million tonnes of CO2e, which is approximately four per cent of gross Scope 1 greenhouse gas emissions.



1 Greenhouse Gas Protocol 2004. A Corporate Accounting and Reporting Standard (Revised Edition)

I GRI 305-1-305-3

139

ew

Corporate Governance

Health and safety

Environment

People and culture

ure Cor

Community

Economic sustainability

Climate

Appendices

141

### Ambitions, targets and metrics

## **Scope 1 and 2 emissions**

Under the NGER framework, emissions are reported by Australian entities that have operational control over an emitting asset or facility. The NGER reporting framework covers:

- Scope 1 and 2 emissions, and energy produced and consumed
- Greenhouse gases including carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O)
- Emissions sources including the combustion of fuels for energy and fugitive emissions from the extraction of natural gas.

Santos has been transparently reporting under the NGER framework since its inception in 2008. In addition, our operated Australian Scope 1 and 2 greenhouse gas emissions are independently audited each year.

Santos primarily adopts the default emissions factors prescribed in the NGER Determination to calculate greenhouse gas emissions:

- Fuel emissions quantity of fuel is measured, then multiplied by the prescribed emissions factor from the NGER Determination
- Flare, vent, carbon dioxide removal emissions

   quantity of gas flared or vented is measured,
   then multiplied by the prescribed emissions factor
   or relevant composition as appropriate under the

   NGER Determination
- Fugitive emissions prescribed emission source (wells, produced water, pipelines, gathering and boosting stations, storage, natural gas processing facilities, offshore platforms, and LNG facilities) multiplied by the prescribed emissions factor under the NGER Determination.

For more detail on the NGER framework see the <u>Clean Energy Regulator website</u>.

# **Scope 3 emissions**

Santos' Scope 3 emissions are indirect emissions in our value chain. The Australian NGER emissions measurement and reporting framework does not encompass Scope 3 emissions. However, Santos calculates and discloses our material Scope 3 emissions in observance of the World Resources Institute Greenhouse Gas Protocol Technical Guidance for Scope 3 Emissions.<sup>2</sup>

There are a range of categories by which Scope 3 emissions can be classified under the Greenhouse Gas Protocol. These categories cover activities upstream and downstream of Santos' emissions reporting boundaries. The majority of Santos' Scope 3 emissions are from downstream of our value chain, being the processing and use of the products that we generate.

As the result of a comprehensive Scope 3 review undertaken during 2023, we have enhanced our understanding of our Scope 3 emissions, and confirmed our previous statement that assuming all products are combusted was a conservative position.

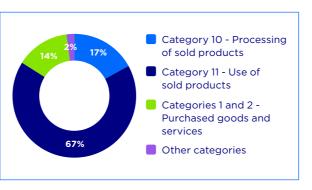
Our 2022-23 downstream Scope 3 emissions (categories 10 and 11) were 27.3 MtCO2e, representing a nine per cent reduction, as compared to our reported 2021-22 downstream Scope 3 emissions. This represents a 27 per cent decrease in category 11 emissions, partially offset by the addition of 5.5 MtCO2e of category 10 emissions, by determining that 28 per cent of our product is not combusted.

Refer to our emissions performance on page 95 for a summary of our 2022-23 emissions.

# DOWNSTREAM SCOPE 3 EMISSIONS (CATEGORY 10/11)<sup>3</sup>

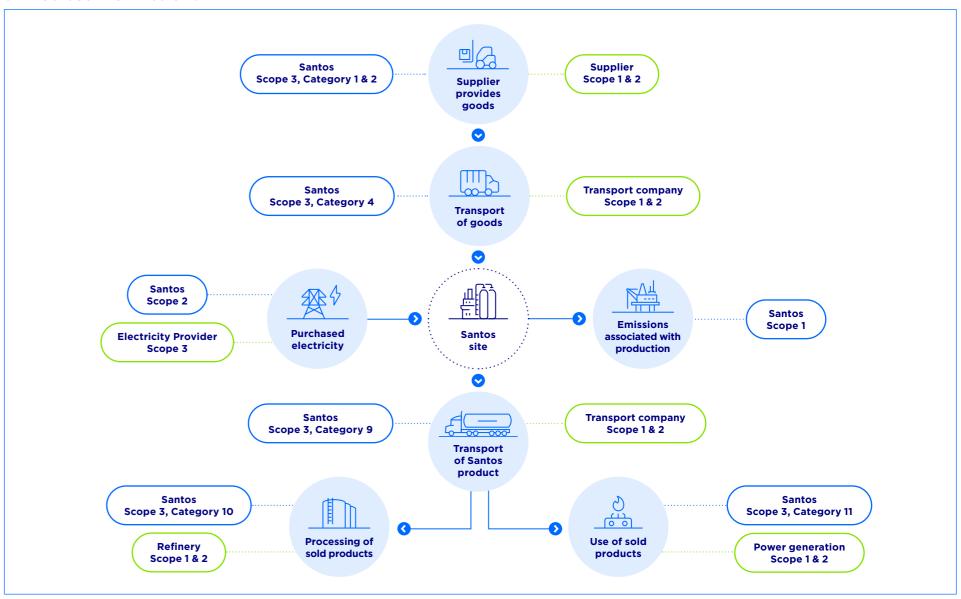


### 2022-23 SCOPE 3 EMISSIONS BY CATEGORY



- 2 Greenhouse Gas Protocol 2004. A Corporate Accounting and Reporting Standard (Revised Edition).
- 3 Santos' Scope 3 emissions reporting in 2021-22 and earlier included only Category 11 emissions, and assumed all product was combusted. For 2022-23, we have updated our downstream reporting to also report on Category 10 emissions.

# THE SCOPE 1 AND 2 EMISSIONS OF OUR SUPPLIERS AND CUSTOMERS COMPRISE SANTOS' SCOPE 3 EMISSIONS



143

# Performance highlight

# Enhancing our emissions estimates and measurement of Scope 3 emissions

In the 2023 Climate report we committed to carry out a more detailed analysis of our Scope 3 emissions. Through this work we are able to enhance the level of our disclosure, resulting from the identification of the material categories of Scope 3 emissions. This improves from the 2023 reporting where we focused our analysis and reporting on Category 11 emissions. The revised analysis involved:

- Taking stock of our upstream and downstream GHG inventory and understanding our value chain using existing guidance from the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and GHG Protocol Corporate Accounting and Reporting Standard (2004)
- Identifying sources of data (including from customers) and making use of primary data where it was available

- Applying the GHG Protocol seven qualitative criteria for identifying our relevant Scope 3 activities
- Calculating our Scope 3 emissions for material and relevant categories, including understanding the end use of the products that we sell
- Assessing whether our existing systems, processes and controls are adequate in preparation for Scope 3 emissions disclosures expected under ISSB reporting requirements.

Our detailed analysis has allowed us to identify and better understand the nature of our Scope 3 emissions and how we can work with our customers and suppliers to reduce these emissions.

Santos' analysis supports our previous statement that our Scope 3 emissions represent the majority of emissions in our value chain. They account for approximately 87 per cent of our total Scope 1, 2 and 3 emissions. Scope 3 emissions fall outside of our direct management or ownership, making them difficult to control. They are also hard to assess, due to the complexity in collecting high-quality data on type or volume of emissions from our value chain, especially on occasions when our product is on-sold several times before it is combusted or produced as an intermediary product, before being sold again (potentially multiple times), before being produced as a final product.

# **Materiality process**

The GHG Protocol has 15 distinct reporting categories for Scope 3 emissions. Eight categories relate to activities upstream of the reporting company and seven activities are downstream of the reporting company.

Santos applied the seven qualitative criteria for identifying and reporting relevant Scope 3 activities to assess which categories are material and/or relevant to Santos. The categories below were identified as being significant contributors to Santos' total Scope 3 emissions.

Scope 3 Emissions Category 21-22 <sup>4</sup> : (MtCO2e)			22-23
Upstream	Category 1 and 2 Purchased goods, services, and capital goods		4.6
Downstream	Category 10 Processing of sold products		5.5
Downs	Category 11 Use of sold products	30.0	21.8
	Other categories		0.8
	Total	30.0	32.7

2022-23 Scope 3 Downstream Emissions by Source (MtCO2e)		
Scope 3 emissions from produced volumes	26.1	
Scope 3 emissions from traded volumes	1.2	

The analysis of our downstream emissions involved examination of individual sales transactions, identifying the likely end use of our products based on product type, customer profile and end-country-use energy consumption profiles.

**Assessment and calculation** 

For our upstream emissions we used a financial spend analysis to rank upstream types of purchased products by their contribution to our total spend for our top 30 suppliers.

The 2022-23 Scope 3 upstream emissions are more material than previous work had indicated. Previously, we relied on secondary data and assumptions which were not specific to activities within our company, such as industry-average data, proxy data, and external databases. In 2023, our calculations were performed at a far more detailed level. including analysis of supplier location and industry to assign appropriate emissions factors. For our largest suppliers, we also sourced individual emissions data, which generally led to significantly lower emissions than when industry data was utilised. In 2024, we plan to further improve this process by working with our suppliers and value chain partners to understand their emissions profiles and obtain data that is as specific as possible to the products we purchase from them.

# **Key insights**

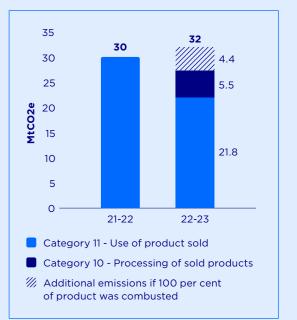
The estimated upstream proportion of our 2022-23 Scope 3 emissions are 4.6 million tonnes and the downstream proportion is 27.3 million tonnes. While the 2022-23 Scope 3 emissions estimate includes the additional upstream emissions which were not accounted for in the 2021-22 Scope 3 emissions, the 2022-23 downstream Scope 3 emissions have reduced by 2.7 million tonnes, relative to 2021-22.

In 2022-23, the analysis of our end use of products identified that 28 per cent of our product was not combusted, resulting in a 4.4 MtCO2e reduction in downstream emissions, as compared to if 100 per cent of product was fully combusted. The reduction in the 2022-23 Scope 3 downstream emissions primarily reflects the sequestration of carbon associated with those sold products that are used as feedstock by buyers (for example, petrochemical feedstocks).

Santos is progressing the potential to address customer emissions through the provision of low carbon fuels and carbon management services. In 2024 we will work with our suppliers and customers to source consistent and better-quality data to continue to refine and advance our methodology to estimate our Scope 3 emissions. This then allows for a better comparison of emissions year-to-year, as well as the ability to help customers and suppliers identify opportunities to reduce their Scope 1 and 2 emissions.

We believe the comprehensive analysis we have conducted this year has prepared us to report in accordance with the International Sustainability Standards Board S2 where companies are required to disclose Scope 3 emissions.

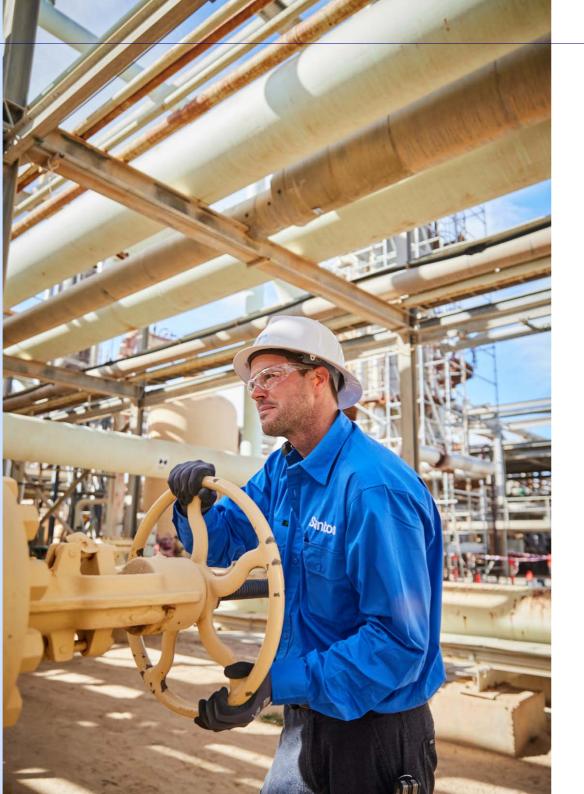
# SCOPE 3 DOWNSTREAM EMISSIONS: IMPACT OF NON-COMBUSTION



4 Santos' Scope 3 emissions reporting in 2021-22 and earlier included only Category 11 emissions, and assumed all product was combusted. For 2022-23, we have updated our reporting to also report on other emissions categories.

# SCENARIO ANALYSIS

Portfolio resilience through the energy transition



### Scenario analysis

# Portfolio resilience through the energy transition

Santos' portfolio has been tested and shows resilience in an energy transition that limits the global temperature increase to 1.5 degrees Celsius.

# Approach to scenario testing

Santos' portfolio has been tested to assess resilience through the energy transition, under both current policy settings and in accelerated transition scenarios. Santos' portfolio value was benchmarked using our current corporate assumptions, which reflect our estimate of commodity price and economic assumption forecasts. The portfolio value was also assessed using commodity prices (oil, natural gas and carbon) derived from three additional scenarios:

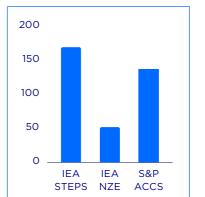
- IEA 2023 World Energy Outlook Stated Policies Scenario (IEA STEPS)<sup>1</sup>
- IEA 2023 Net Zero by 2050 Scenario (IEA NZE)<sup>2</sup>
- S&P Global Commodity Insights (previously IHS Markit)
   Accelerated Carbon Capture and Storage Scenario (S&P ACCS).<sup>3</sup>

The IEA STEPS scenario reflects the global energy transition under current policies and announcements. It does not target a particular outcome, instead it is designed to model the current transition trajectory.

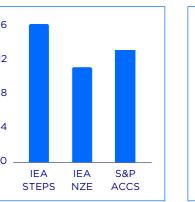
The IEA NZE and the S&P ACCS scenarios both represent pathways where an increase in global average temperature is limited to 1.5 degrees Celsius. This is achieved through determining the global actions required, including changes in consumer behaviour and energy demand, to achieve Net Zero by either the energy sector only (IEA NZE) or both the energy and non-energy sectors (S&P ACCS) by 2050.

The above scenarios represent three datapoints within a wide population of scenarios which Santos references for our internal analysis and to inform our strategic priorities.

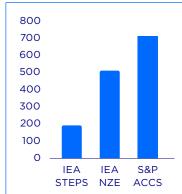
# BRENT PRICE ASSUMPTION IN 2050 US\$/BBL



# LNG PRICE ASSUMPTION IN 2050 US\$/MMBTU



# CARBON PRICE ASSUMPTION IN 2050 US\$/TCO2



Santos Board and management team set strategy according to the current and expected operating environment. Given that the operating environment and government policies in relevant jurisdictions are continuously shifting and materially different to all scenarios considered, the Board and management team continually reassess company strategy and make necessary adjustments in order to maximise value for shareholders and other stakeholders. The scenario analysis is a useful tool in the strategic assessment and alignment process and informing strategy.

For scenario analysis, commodity price assumptions have been derived from IEA STEPS, IEA NZE and S&P ACCS scenarios. The LNG price has been based on the Japanese natural gas price in the IEA scenarios and Asian Term LNG in the S&P ACCS scenario. The price of carbon for advanced economies is assumed under the IEA scenarios and averaged across all regions for the S&P ACCS scenario.

- 1 IEA 2023. World Energy Outlook 2023.
- 2 IEA 2023. Net Zero Roadmap: A Global Pathway to Keep the 1.5C Goal In reach
- 3 S&P Global 2023: Energy & Climate Scenarios.

N Co

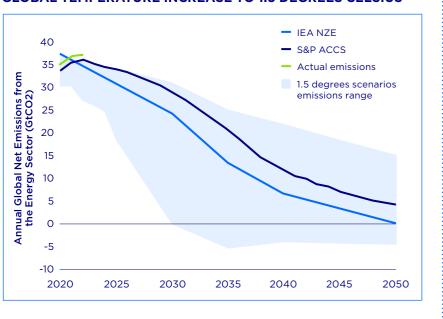
147

## **Scenarios in context**

Santos has analysed approximately 100 scenarios representing potential climate futures where global temperature increase is limited to 1.5 degrees Celsius. The S&P ACCS and IEA NZE represent two datapoints in a very large quantum of available scenarios; we conduct benchmarking to understand where our modelled scenarios sit in relation to the range of available scenarios, with particular reference to the IPCC AR6-WG3<sup>4</sup> scenario database.

The IPCC AR6-WG3 C1 scenario category contains scenarios which limit warming to 1.5 degrees Celsius with little or no overshoot. Santos' modelled S&P ACCS and IEA NZE scenarios represent mid-range emissions projections as compared to the broader emissions envelope.

# NET EMISSIONS FOR SELECTED SCENARIOS WHICH LIMIT THE GLOBAL TEMPERATURE INCREASE TO 1.5 DEGREES CELSIUS



4 IPCC 2022. Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

### **Emissions under the IEA NZE Scenario**

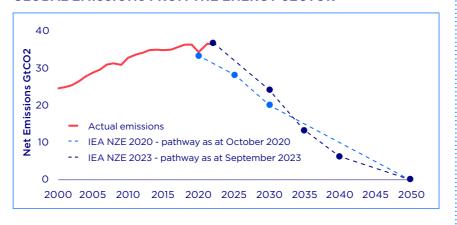
The IEA first published a Net Zero Emissions by 2050 case in 2020, and publishes annual updates with revised pathways, considering the changes in global energy demand and supply, technology progress, and – most importantly – the remaining global carbon budget to limit global temperature increase to 1.5 degrees Celsius.

In 2020 when the IEA released the first of its NZE scenarios, 2020 net emissions under the Net Zero pathway were projected to be 33.4 GtCO2 in 2020, declining to 20.1 GtCO2 in 2030 and then to zero by 2050.

Globally, we haven't seen the requisite fall in emissions to meet the IEA's NZE outlooks. Instead emissions have rebounded to all-time highs post COVID-19 lockdowns in 2020. The most recently released IEA NZE scenario revised projected 2030 net emissions to 24.0 GtCO2.

The world's failure to meet the IEA NZE 2020 required emissions reductions through 2020-2022 has necessitated an annual revision of the Net Zero pathway, with the latest IEA NZE 2023 projecting significantly higher emissions through to the early 2030s, before an accelerated decline to Net Zero by 2050. This demonstrates that IEA NZE is a potential pathway, driven by global energy demand and economics, rather than a definitive pathway or reliable forecast of future emissions volumes.

### GLOBAL EMISSIONS FROM THE ENERGY SECTOR<sup>5</sup>



# **Key insights**

Santos evaluates the resilience of our portfolio with reference to both quantitative and qualitative factors.

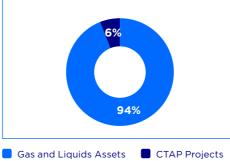
Key to our portfolio's resilience is our unique combination of low-cost, long-life natural gas and liquids assets, CCS capability, and low carbon fuels and nature-based solutions project pipelines. The Santos Board and management team are continuously assessing strategic options and evaluating the current and future mix of assets within our portfolio. Our asset and project composition is optimised for the current operating environment; should any of the below scenarios eventuate, our portfolio retains flexibility to respond to such changes in the operating environment. Macroeconomic forecasts for energy transition scenarios continue to be volatile as views of potential global pathways evolve, which can create shifts in valuation assessment outcomes year-on-year. Santos will continue to reference a variety of scenarios, including macroeconomic forecasts, within our strategic planning framework.

Santos plans to unlock value from both traditional revenue streams, as well as new revenue streams, which we will seek to develop as the world continues to meet emissions reduction goals. Recent changes to the Australian Safeguard Mechanism is one example of how the global pursuit of emissions reduction targets can cause value erosion to the portfolio.

### **IEA STEPS**

The IEA STEPS scenario reflects current energy-related policies and demonstrates the global market conditions forecast as a result of announced decarbonisation pledges. Reflecting the policies and measures in place leads to a modelled temperature rise of 2.4 degrees Celsius in 2100. In this scenario the demand for oil and gas supply through to 2050 remains relatively stable and requires a three-fold increase in carbon capture and storage capacity to meet emissions reduction pledges.

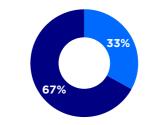
Under this scenario, the Santos portfolio models 24 per cent value growth from both gas and liquids assets and our CTAP projects. The value balance between gas and liquids assets, compared with CTAP projects reflects the current transition trajectory.



### **IEA NZE**

The IEA NZE scenario reflects one pathway to limiting the global temperature rise to 1.5 degrees Celsius above preindustrial levels by 2100. This scenario assumes significant reduction in energy demand, rapid upscaling of investment, widespread lifestyle changes and immediate emissions reduction beyond current trajectories. In this scenario, demand for oil and gas supply decreases to 2050, instead relying heavily on significantly increased investment into clean energy sources to meet global energy demands. The IEA acknowledge the need for global cooperation to achieve Net Zero energy sector CO2 emissions by 2050. It requires aspirational step-changes to behaviours and investment, such as a five-fold increase in clean energy investment in emerging markets and developing economies by 2030, despite 80 per cent of current clean energy investment occurring in advanced economies and China.

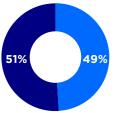
In this scenario, the Santos portfolio sees a shift in value away from gas and liquids assets with approximately two-thirds of the portfolio value modelled to lie with CTAP projects. The overall portfolio sees a 53 per cent reduction in value compared with the benchmark portfolio but a significant increase in the value of current and potential CTAP projects.



### S&P ACCS

The S&P ACCS scenario emphasises the importance of carbon capture and storage technology to reaching Net Zero targets. This scenario demonstrates a pathway to limiting temperature rise to 1.5 degrees Celsius by 2100 through incentivising investment in CCS technology, through high carbon prices and regulatory changes. In the S&P ACCS scenario, total global energy demands are met through increasing low carbon options such as renewables and nuclear, and decreasing reliance on traditional energy sources such as coal, oil and gas.

In this scenario, there is a forecast value decrease to the Santos portfolio of 20 per cent compared to the benchmark portfolio. The portion of value attributed to Santos' CTAP projects grows to up to 51 per cent of total portfolio value. Santos' portfolio of gas and liquid assets remains significantly cash generative to 2030, with a less than 10 per cent decrease in net cash flow from these assets as compared to the benchmark portfolio case. This provides a pathway to repurpose existing infrastructure to support accelerated and expanded development of CTAP projects such as CCS, low carbon fuels, and carbon solutions.



<sup>5</sup> IEA 2023. Data & Statistics.

# Risks and opportunities

### **IEA STEPS**

### Risks

Despite robust demand for natural gas and oil, global focus on decarbonisation continues, potentially limiting access to capital markets.

This is mitigated by balance sheet strength and a track record of disciplined capital allocation and success in securing project-specific funding.

### **Opportunities**

This scenario models strong demand for oil and gas through to 2050 which allows continuation of value derivation from the long-life, low-cost natural gas and liquids assets in the Santos portfolio.

### **IEA NZE AND S&P ACCS**

### Risks

A pathway to commercialisation of decarbonisation and low carbon fuels projects that are required to maintain value in these scenarios is dependent on policy, technology and market developments.

This is mitigated by a number of controls Santos has in place including CTAP development, governance, approval, and regular reporting processes, customer engagement, and Government engagement and advocacy.

### **Opportunities**

The demand growth in CCS and low carbon fuels required to meet Net Zero targets in these scenarios benefits Santos' infrastructure position, carbon storage resources, organisational skill sets and existing customer relationships.

# **Limitations of Scenario Analysis**

Scenarios do not represent forecasts or likely outcomes, but rather a range of potential future outcomes based on sets of assumptions around changes in global behaviour, including energy supply and demand.

Santos' scenario analysis necessarily relies on a number of assumptions, both internal (including asset working interests, commercial arrangements and market conditions) and external (including assumed changes to macroeconomic conditions under each scenario). A change in any of these assumptions could impact the results of, and conclusions drawn from, scenario analysis.

Santos notes that both the IEA and S&P Global acknowledge that their scenarios represent potential pathways - not definitive pathways - to limiting global temperature increase to 1.5 degrees Celsius, and that globally we are not currently on these pathways.





Scenario analysis

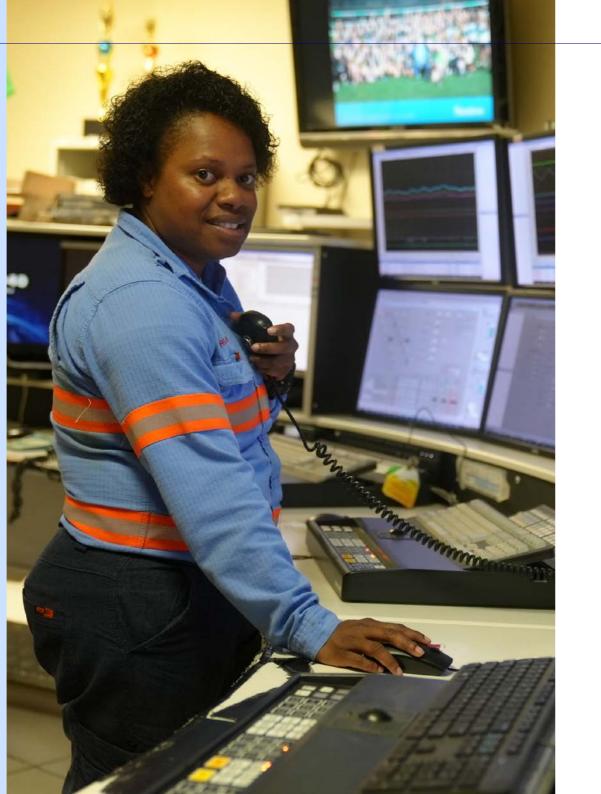
RISK

MANAGEMENT

Integration of climate risk management

Climate risks

Physical risk assessment



# Integration of climate risk management

Santos works within a Risk Management Framework to ensure that risks that threaten the delivery of our vision, purpose and objectives are effectively managed.

Held at the most senior levels of Santos is an enterprise risk register, comprising eighteen identified risks which apply across our enterprise. Two of these are dedicated to the management of risks associated with climate change and carbon emission expectations. The enterprise risk register is regularly reviewed by Executive Management and formally approved biannually by the Board through its Audit and Risk Committee, supplemented by a schedule of deep-dive reviews on the individual enterprise risks. Another important element of the Risk Management Framework is the documented Risk Management Statement which is used to demonstrate that climate and carbon considerations amongst a range of other matters, have been effectively considered for recommendation for new business activities, projects or company position seeking approval through the CEO or Board.

Controls identified from the deep analysis of risks are translated into the Santos Management System (SMS) and then operationalised through Operating Procedures across the regional business units, functional divisions and corporate functions. It is here so that the active management of climate and carbon risks occurs, to contribute to the broader sustainability of Santos. Transition risks are considered across short-term (0-1 years), medium term (1-5 years) and long-term (5 years and beyond) time horizons, while long-term physical risks are assessed at 2030, 2050 and 2070 time horizons.



Corporate Governance

Environment

People and culture

Economic sustainability

Appendices

153

# **Climate risks**

# **Climate transition risks**

Santos has established internal capabilities to tackle the challenges, identify and leverage the opportunities arising from climate change. Santos has a Climate Transition Action Plan that will continue to evolve based on factors including developments in technology, science, markets, policy and experience over time. Please refer to page 110-111 for more detail in relation to the Climate Transition Action Plan.

Risk type	Climate-related risk	Potential impacts	Key time horizon Short (0-1yrs) Medium (1-5yrs) Long (5-30yrs)	Potential mitigations and controls
Policy and legal risks	Government climate- related policies may constrain or delay development and production, and delay decarbonisation of our fuels	Adverse policies may:  Impact cash flow, growth, value and/or operability through demand destruction or low product pricing  Constrain or delay the ability of Santos to execute projects in pursuit of its CTAP including carbon dioxide storage in Santos' decarbonisation hubs  Create uncertainty which undermines Santos' value/share price/investors resulting in divestment  Result in deferred revenue from delayed project startups  Increase decommissioning costs  Increase the cost of, or restrict, raising capital  Increase Santos' operating costs through the cost of compliance.	Short-medium	<ul> <li>Government engagement plans</li> <li>Energy Regulator engagement</li> <li>Community engagement plans</li> <li>Policy stakeholder engagement</li> <li>Media engagement</li> <li>Stakeholder briefings</li> <li>Industry advocacy.</li> </ul>
Policy and legal	Litigation risk	Litigation may have wide-ranging consequences including: Denial of regulatory approval Payments of fines/penalties or compensation Constrain or delay the ability of Santos to execute projects in pursuit of its CTAP.	Short-medium-long	<ul> <li>Monitoring global legal developments</li> <li>Review past disputes to inform policy and procedural changes</li> <li>Santos Policies including the Code of Conduct.</li> </ul>
Technology risks	Investment in low carbon fuels and/or transition technologies pursued by Santos (eg CCS, DAC) may not be economically scalable for Santos resulting in limited return on investment and inability to meet decarbonisation targets	Higher costs to manage emissions reductions and meet targets     Share price and asset value volatility     Unable to deliver value for shareholders through energy transition     Uncertainty undermines investment decisions and financing.	Short-medium-long	<ul> <li>CTAP</li> <li>Asset emission controls</li> <li>Santos Energy Solutions and multiple hub structure</li> <li>Investment in technology trials, building a portfolio of potentially viable technologies</li> <li>Modelling and regular stress testing of the portfolio</li> <li>Carbon offset programs.</li> </ul>

### **Risk management**

Risk type	Climate-related risk	Potential impacts	Key time horizon Short (0-1yrs) Medium (1-5yrs) Long (5-30yrs)	Potential mitigations and controls
Market risks	Santos' current and/or lower carbon energy products and services don't meet the needs of the market	Reduced demand for Santos' products and services could result in:  • Free cash flow decline  • Lower revenue  • Reduced lifespan for carbon intensive assets.	Medium-long	<ul> <li>Santos Disciplined Operating Model</li> <li>Balanced revenue streams</li> <li>Portfolio diversification</li> <li>Hedging strategy and plan</li> <li>Customer engagement</li> <li>Santos Energy Solutions business to develop a portfolio of low carbon fuels to meet future customer needs</li> <li>Government engagement and advocacy.</li> </ul>
	Reduced access to capital markets due to increasing concerns about the negative effects of climate change	Increased cost of capital and reduced access to risk transfer via insurance markets     Reduced capacity and/or willingness for banks to provide finance accommodation.	Long	<ul> <li>Santos Disciplined Operating Model</li> <li>Diversification of income streams and from portfolio of core assets</li> <li>Treasury Financial Risk Management Policy</li> <li>Adequate liquidity</li> <li>Proactive engagement with financiers and insurers.</li> </ul>
Reputa- tional risks	Santos' decarbonisation targets and/or strategy may fail to align to stakeholder expectations	<ul> <li>Increased cost of debt or access to debt</li> <li>Costs associated with operating above baselines</li> <li>Negative impact to employee engagement.</li> </ul>	Medium-long	<ul> <li>Vision 2040</li> <li>Government engagement and advocacy</li> <li>Climate and sustainability reporting</li> <li>Investor, Fund and Bank engagement strategy</li> <li>Climate change impact modelling</li> <li>Industry advocacy.</li> </ul>
	Environmental and/or Shareholder Activism	<ul> <li>Decreased ability to raise debt and equity</li> <li>Shareholders withdraw investment from Santos</li> <li>Projects are delayed, cancelled or blocked through lawfare and lobbying</li> <li>Difficulty, inability to acquire insurance or at significant cost</li> <li>Inability to generate cash flow from traditional business to support expansion of Santos Energy Solutions</li> <li>Increased costs of business from increased regulatory burden and delays to securing and executing project approvals.</li> </ul>	Short-medium	<ul> <li>Stakeholder consultation and engagement plans</li> <li>Land access and consultation processes</li> <li>Debt and Equity investor engagement plans</li> <li>Santos Disciplined Operating Model</li> <li>Climate change, sustainability reporting</li> <li>Industry advocacy.</li> </ul>
	Decrease in talent retention and attraction	Projects not advancing and workforce reduction, reduction of high-quality work.	Medium-long	<ul> <li>Workforce plans</li> <li>Development pathways and LEAP Program</li> <li>Talent and succession processes</li> <li>Employee engagement surveys</li> <li>Targeted recruitment</li> <li>Competitive remuneration and rewards.</li> </ul>

# **Physical risk assessment**

In 2023, Santos engaged Deloitte to update our physical climate scenario analysis. While the scenario analysis in previous years focused on individual regions and/or earlier generations of climate models, the 2023 assessment uses the latest climate models published by the International Panel on Climate Change.

The scenarios analysis approach to climate risk assessments considers three Shared Socioeconomic Pathways (SSPs) scenarios to analyse three plausible, but different cases, of how Santos may be impacted by physical risks.

Physical hazards were assessed for 2030 (2020-2039), 2050 (2040-2059) and 2070 (2060-2079) under three reference climate scenarios across Australia, PNG and Alaska.

165 assets assessed across Australia, PNG, and Alaska with climate hazards metrics<sup>1</sup> covering:

- Extreme heat
- Extreme dry
- Bushfires
- Extreme cold
- Extreme rain Storm surge
- Sea level rise
- Temperature rise
- Cyclones.

### 1 These climate hazards were evaluated using the WMO extremes indices found here; https://community.wmo.int/en/climatechange-detection-and-indices

### SSP1-2.6

1.8°C average global warming at 2100, associated with early and aggressive global mitigation

Stringent policies and technological innovation help reach Net Zero after 2050.

### SSP2-4.5

2.7°C average global warming at 2100, associated with current global climate targets and pledges

Delayed and divergent policies result in slow emissions reduction.

### SSP5-8.5

4.4°C average global warming at 2100, associated with limited global climate action

Lack of government and market response causes on increase in emissions.

### **Australia**

All climate hazards are projected to increase in intensity and/or frequency, with overall larger projected increases at more distance time horizons and higher emission trajectories.

### **PNG**

PNG is the most exposed to projected increases in extreme rain and storm surge events. PNG's tropical climate is hot and humid and one of the wettest climates in the world.

## Alaska

Alaska is the most exposed to chronic temperature rise contributing to permafrost thaw and a decrease in extreme cold conditions.

Santos will undertake work in 2024 to assess the impacts of this latest assessment across our Portfolio

# Santos portfolio assessed

The map indicates regions of largest future

Northern Australia and Timor-Leste



**ALASKA** 

Cold and dry tundra zone

### **AUSTRALIA**

Western Australia



Tropical to subtropical zone with several hazard types

Port Bonython

Curtis Island

**PAPUA NEW GUINEA** 

Hot and humid tropical zone

Surat Basin













change to key physical climate hazards, assessed under SSP1-2.6, SSP2-4.5 and SSP5-8.5 scenarios across Santos' portfolio.

### TIMOR-LESTE



























# APPENDICES

Appendix 1 - Glossary

Appendix 2 - Abbreviations and acronyms

Appendix 3 - Units of measure

Appendix 4 - Summary data tables

Appendix 5 - GRI index

Appendix 6 - TCFD Disclosures Index

Appendix 7 - Investor feedback and our response

Appendix 8 - Assurance statement



# **Appendix 1 - Glossary**

absolute	When used in reference to emissions reduction targets means reduction against the total emissions at the relevant point in time, rather than a relative or comparative amount	capacity	When being used in the context of CO2 storage as per the SRMS, means those storable quantities of CO2 anticipated to be commerciall stored by application of development projects from a given date
access agreement	An agreement with a landholder or other land or marine user outlining petroleum activity or tenure for all of petroleum activity, terms and conditions and agreement to compensation		forward under defined conditions. Capacity must satisfy four criteria: it must be discovered, storable, commercial, and remaining (as of a given date) on the basis of the development project(s) applied
ACCU	Australian Carbon Credit Unit. Each ACCU issued represents one tonne of carbon dioxide equivalent (tCO2e)	carbon capture	A process in which greenhouse gases, including carbon dioxide, methane and nitrous oxide, from industrial and energy-related sources are separated (captured), conditioned, compressed, transported and
administrativo	An enforcement action issued by a regulatory authority for suspected / alleged or potential breaches of an Act, regulation or compliance	and storage (CCS)	injected into a geological formation, that provides safe and permanen storage deep underground
administrative notices received from regulators	condition, in which the regulatory authority has elected not to progress further as an offence. Generally reserved for low or minor contraventions where a financial penalty is not considered appropriate. May be considered in future compliance matters	carbon management	Carbon management services means services that focus on managing and reducing CO2 emissions of an organisation or individual project o facility through various strategies, which may include CO2 emissions reduction, abatement, avoidance, removal, and offsetting. Carbon
available capacity	Maximum throughput of installed equipment, adjusted for planned and unplanned outages. Total available capacity is the sum of each operated asset's available capacity	services	management services may also include monitoring and reporting on CO2 emissions, carbon trading as well as developing and implementin carbon reduction plans
beneficial use	Produced formation water (PFW) that has been used in activities such		Community investment includes mandatory and voluntary community investment spend.
formation water volume (water recycled/reused)	as irrigation, dust suppression, drilling completions, civil works and other operations. The volume does not include 'aquifer injection water'	<ul> <li>Mandatory community investment includes financial of that Santos is legally obligated to fulfil under a binding regulatory authority mandate, or other legal requirements.</li> </ul>	Mandatory community investment includes financial obligations that Santos is legally obligated to fulfil under a binding agreement, regulatory authority mandate, or other legal requirements, with the
	The measure of diversity of plants, animals and microorganisms on earth; it refers to genetic variations between members of the same	community investment	aim of providing social, economic, and/or environmental benefits to community through third party arrangements
biodiversity	species, which are essential to their ongoing survival, as well as the assemblage of ecosystems		<ul> <li>Voluntary community investment includes sponsorship partnerships community grants and donations with the aim of providing direct community benefit and community participation and/or capacity-</li> </ul>
biodiversity impact assessments	Fauna and/or flora surveys and assessments undertaken by suitably qualified independent external professional		building opportunities, Santos Foundation partnerships, grants and donations and community infrastructure projects.
biodiversity	Biodiversity offsets are measurable conservation outcomes that compensate for the negative impacts of development. Where	Company	Santos Limited and all its subsidiaries
offsets	mandated or possible Santos uses direct land-based offsets to meet offset obligations	competency frameworks	A structured framework that sets out and defines technical and leadership competency requirements that individuals need to be able to demonstrate in order to competently perform the role

compliance management system	A Santos Compliance approved tool or database used to store compliance instruments, track their status, and allocate and track actions to ensure compliance
	A mixture of hydrocarbons (mainly pentanes and heavier) that exist in the gaseous phase at original temperature and pressure of the reservoir but when produced, are in the liquid phase at surface pressure and temperature conditions. Condensate differs from natural gas liquids in two respects:
condensate	<ol> <li>Natural gas liquid is extracted and recovered in gas plants rather than lease separators or other lease facilities, and</li> </ol>

	Both Aboriginal and non-Aboriginal cultural heritage. Cultural heritage
crude oil	Crude oil is the portion of petroleum that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric conditions of pressure and temperature (excludes retrograde condensate). Crude oil may include small amounts of non-hydrocarbons produced with the liquids but does not include liquids obtained from the processing of natural gas
critical fuels	Hydrocarbon fuels, including oil and natural gas, that supply around 80 per cent of the world's primary energy supply. Hydrocarbon fuels are critical to meet current and forecast energy demand and to the manufacturing of everyday products
construction footprint	The area of vegetation, topsoil and potentially subsoil that is disturbed/removed during construction. Includes temporary disturbance such as laydown areas. This is generally a larger area than used during operations
	propane, or butanes) as well as the pentanes-plus that are the main constituents of condensate

can be either tangible (artefacts, scar tree, stock yards, cultural heritage) or non-tangible (Sacred Sites, Significant Aboriginal Areas,

Agreements entered into by Santos to manage cultural heritage

Survey of an area prior to commencing activities to identify cultural heritage and the cultural heritage management practices required,

including exclusion zones and site management actions, to ensure cultural heritage is avoided, where practical, or that impacts are

cultural heritage)

minimised

cultural heritage

cultural heritage

agreement

2. Natural gas liquid includes very light hydrocarbons (ethane,

decarbonise  Eligible Whistleblower  e-methane  emissions  decarbonise  in  in  in  in  in  in  in  in  in  i	The process of avoiding, reducing or offsetting anthropogenic greenhouse gas emissions through operational activities or efficiencies, technology deployment, use of generated or acquired carbon credit units, and/or other means  Has the meaning given by section 13717AAA of the <i>Corporations Act (2001)</i> (Cth)  Fuels produced by combining hydrogen with carbon dioxide to produce methane. This process is called methanation and it can potentially utilise carbon dioxide from direct air capture, emitters or other sources. E-methane is still under consideration by Santos, including the process and associated emissions. Depending on the net emissions in its production, processing, and use, e-methane has the potential to be a low carbon fuel  Greenhouse gas emissions, unless otherwise specified  The amount of greenhouse gas emissions per unit of specified output, such as production or facility throughput  A listing of the controls and the risks that may materially impact
e-methane emissions emissions	(2001) (Cth)  Fuels produced by combining hydrogen with carbon dioxide to produce methane. This process is called methanation and it can potentially utilise carbon dioxide from direct air capture, emitters or other sources. E-methane is still under consideration by Santos, including the process and associated emissions. Depending on the net emissions in its production, processing, and use, e-methane has the potential to be a low carbon fuel  Greenhouse gas emissions, unless otherwise specified  The amount of greenhouse gas emissions per unit of specified output, such as production or facility throughput
e-methane I	methane. This process is called methanation and it can potentially utilise carbon dioxide from direct air capture, emitters or other sources. E-methane is still under consideration by Santos, including the process and associated emissions. Depending on the net emissions in its production, processing, and use, e-methane has the potential to be a low carbon fuel  Greenhouse gas emissions, unless otherwise specified  The amount of greenhouse gas emissions per unit of specified output, such as production or facility throughput
emissions	The amount of greenhouse gas emissions per unit of specified output, such as production or facility throughput
	such as production or facility throughput
	A listing of the controls and the risks that may materially impact
•	Santos Ltd
	A change to the environment, whether adverse or beneficial, wholly or partially resulting from Santos' activities
exploration	Drilling, seismic or technical studies undertaken to identify and evaluate regions or prospects with the potential to contain hydrocarbons
flowback fillid	Water-based solution that flows back to the surface during and after the completion of hydraulic fracturing
The second secon	A not-for-profit organisation whose mission is to invest in partnerships and local initiatives that help communities thrive
	Any chemical mixture used in drilling operations to increase the quantity of hydrocarbons that can be extracted
free cash flow	Operating cash flows less investing cash flows net of acquisitions and disposals and major growth capital expenditure, less lease liability payments
free cash flow breakeven (FCFBP)	The average annual US\$ oil price at which cash flows from operating activities (before hedging) equals cash flows from investing activities. Excludes one-off restructuring and redundancy costs, costs associated with asset divestitures and acquisitions, and major project capex. Includes lease liability payments. Forecast methodology uses corporate assumptions
gearing 1	Net debt divided by the sum of net debt and net equity

Great Artesian Basin offset	Recognised reductions in water use/loss from the implementation of both direct and indirect activities in the Great Artesian Basin. This includes managing water flow by repairing or replacing bores, and replacing open bore drains with pipes, tanks and troughs. A significant portion of these offsets come from Santos' contribution to Queensland government rehabilitation programs
hazardous waste	Component of the waste stream which by its characteristics poses a threat or risk to public health, safety or the environment (includes substances which are toxic, infectious, mutagenic, carcinogenic, teratogenic, explosive, flammable, corrosive, oxidising and radioactive). Hazardous wastes are generally unsuitable for landfill disposal and should only be accepted within landfills after appropriate treatment and/or in accordance with specific licence conditions. See also waste that possesses any of the characteristics contained in Annex III of the Basel Convention, or that is considered to be hazardous by Commonwealth legislation
heads of agreement	An initial set of terms that establishes the framework for a transaction
hierarchy of controls	The hierarchy of control is a step-by-step approach to eliminating or reducing risks and it ranks risk controls from the highest level of protection and reliability through to the lowest and least reliable protection. Eliminating the hazard and risk is the highest level of control in the hierarchy, followed by reducing the risk through substitution, isolation and engineering controls, then reducing the risk through administrative controls. Reducing the risk through the use of protective personal equipment (PPE) is the lowest level of control
high potential event (HPE)	Any incident or near miss that could have realistically resulted in severe harm or worse (safety) or moderate environmental harm or worse
hydraulically fractured wells / hydraulic fracturing sites	Sites that have undergone an underground petroleum extraction process that involves the injection of fluids under high pressure into low permeability rock to induce fractures to increase the rock's permeability
hydrocarbon release	Accidental release of a liquid hydrocarbon to land or water. Hydrocarbon may be in the form of crude, condensate, hydraulic or pneumatic fluid, diesel. Also referred to as hydrocarbon spill
hydrocarbons (HC)	Compounds containing only the elements hydrogen and carbon, which may exist as solids, liquids or gases
information system	An integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products

land impacted by disturbance	Any activity that changes the physical conditions of landform, vegetation and hydrology. Such activities include, but are not limited to clearing, removal of vegetation (including grasses and herbs), stripping, mulching, grading, grubbing, excavating, filling, logging and storing of material
leaders	Employees who are in roles which have direct line control and responsibility for employee safety, behaviour and performance
liquid hydrocarbon (liquids)	A sales product in liquid form, for example condensate and LPG
LNG	Liquefied natural gas. Natural gas that has been liquefied by refrigeration to store or transport it. Generally, LNG comprises mainly methane
local spend	Spend in an area or region where we operate that includes procurement of goods and services, infrastructure, rates, levies and charges and payments to landholders
loss of primary	A loss of containment incident, meaning an unplanned or uncontrolled release of any material hydrocarbon from primary containment.
containment (LOPC)	Tier 1 and 2 classifications based on rate of release and production composition as per API 754
loss of containment incident (LOCI)	Sub-set of LOPC, where the unplanned or uncontrolled release of hydrocarbon from primary containment has also breached secondary containment or risk is people / environment
lost time injury rate (LTIR)	The number of lost time injuries (fatalities + lost time injuries) per million work hours
low carbon fuels	Fuels that Santos may seek to develop with materially lower net greenhouse gas emissions in their production, processing and use (including through reduction and/or equivalent emissions reduction units) compared to traditional fossil fuels. This term may encompass a range of fuels such as hydrogen, ammonia or e-methane
lower carbon / domestic gas / LNG / liquids	Domestic gas / LNG / hydrocarbon liquids classified as traditional fossil fuels that have had greenhouse gas emissions in their production, processing and/or use reduced, captured, sequestered and/or offset, either wholly or partially compared to historical
lower carbon energy	Energy sources that have lower net greenhouse gas emissions in their production, processing and use (including through reduction and/or equivalent emissions reduction units) compared to traditional fossil fuels. This includes lower carbon domestic gas, LNG and hydrocarbon liquids, and may also include low carbon fuels as they are developed by Santos

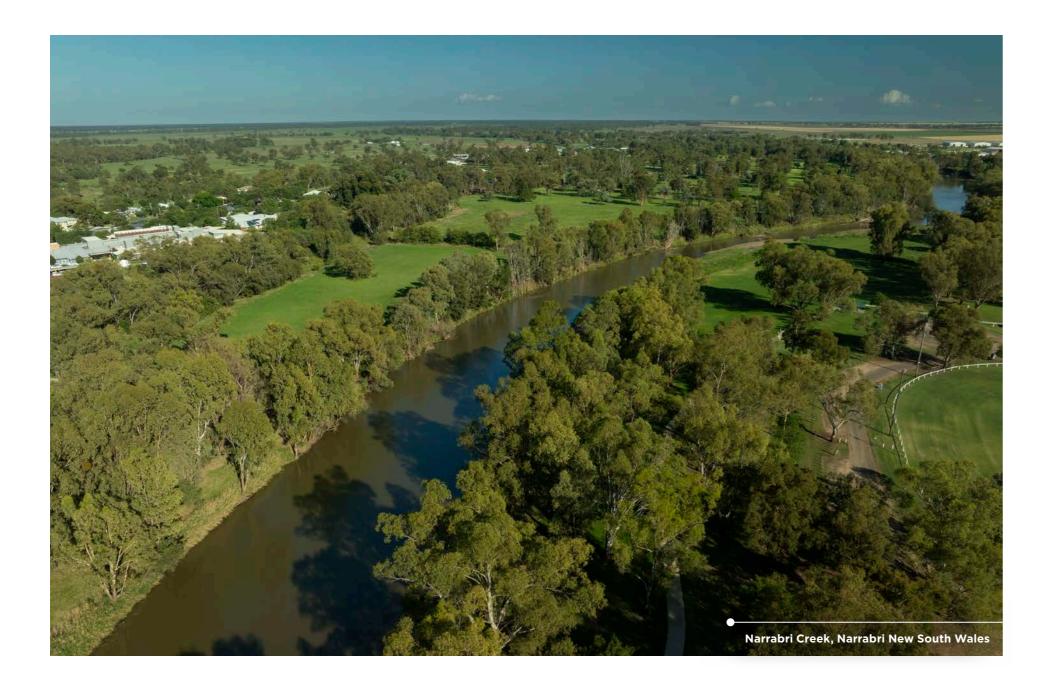
LPG	Liquefied petroleum gas. A mixture of light hydrocarbons derived from oil bearing strata that is gaseous at normal temperatures but that has been liquefied by refrigeration or pressure to store or transport it. Generally, LPG comprises mainly propane and butane
major accident event (MAE)	An event connected with a facility, including a natural event, having the potential to cause multiple fatalities of persons at or near the facility or as defined within the relevant legislation / regulation pertaining to a facility
moderate harm injury	An injury resulting in temporary disablement or medium-term impairment (weeks to months)
moderate harm rate	The number of actual moderate harm injuries and above per million work hours
Native Title	Recognition in law that Aboriginal and Torres Strait Islander people had a system of law and ownership of their lands before European settlement and that they have the interests and rights to land and water according to their traditional law and customs. Native Title is governed by the Commonwealth <i>Native Title Act (1993)</i>
net zero abstraction of water	Applies to the Australian Great Artesian Basin and means offsetting groundwater extracted by Santos during oil and gas production by supporting, enabling or funding equivalent reductions by third parties from uncontrolled groundwater releases (eg from free-flowing bores)
Net Zero	In relation to greenhouse gas emissions, is achieved when anthropogenic emissions of greenhouse gases are balanced by anthropogenic removal of greenhouse gases through means such as operational activities or efficiencies, technology (eg CCS), offset through the use of emissions reduction units, or other means
net-zero Scope 1 and 2 emissions / net-zero emissions	Santos' equity share of Net Zero Scope 1 and 2 greenhouse gas emissions
oil	A mixture of liquid hydrocarbons of different molecular weights
penalty notices from regulators	An outcome of compliance and enforcement action by a regulator in the form of a written notice. Generally reserved for low or minor contraventions or where prosecution or higher level enforcement action is not considered warranted. A financial penalty may be associated with the notice. Examples include notices of non-compliance and penalty infringement notices

petroleum resource rent tax (PRRT)	A tax applied to profits generated from the sale of marketable petroleum commodities from Australian offshore petroleum projects. Marketable petroleum commodities include crude oil, condensate, LPG, natural gas and ethane that are sold, used as feedstock for conversion to another product or direct consumption as energy
preparation for reuse	Checking, cleaning, or repairing operations, by which products or components of products that have become waste are prepared to be put to use for the same purpose for which they were conceived
produced water / produced formation water (PFW)	Water that is produced as a by-product during the extraction of oil and gas
protected area	An area that is protected from any harm during operational activities, and where the environment remains in its original state with a healthy and functioning ecosystem
reserves	Those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of a given date) based on the development project(s) applied
residual emissions	Any greenhouse gas emissions which remain after an organisation has implemented all technically and economically feasible emissions reduction opportunities
restored / rehabilitated area	An area that was affected or modified by operational activities, and where remediation measures have either restored the environment to its original state, or to a state where it has a healthy and functioning ecosystem
risk appetite statement	The Risk Appetite Statement is approved by the Board and defines tolerance to areas of material risk in relation to the company's current strategic objectives. The Risk Appetite defines authorities for risk acceptance across differing levels of risk exposure for each area of material risk
sales gas	Natural gas that has been processed by gas plant facilities and meets the required specifications under gas sales agreements
Santos Life Saving Rules	The Santos Life Saving Rules are the critical controls for a range of fatal risks
Santos site	Assets/projects where Santos has decision authority over the operation

Scope 1 emissions	Direct greenhouse gas emissions that occur from sources that are owned or controlled by the reporting company
Scope 2 emissions	Indirect greenhouse gas emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company
Scope 3 emissions	All indirect greenhouse gas emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions
senior leadership	A group of senior employees comprising General Managers, Heads of Functions, Vice Presidents and Group Executives
severe harm injury	A life-threatening injury(s) or an injury resulting in long-term / life- altering disablement or impairment
significant spill	Santos' measure of significant spills is moderate or greater environmental consequence (moderate consequence) is defined as 'Moderate-scale impact to environmental values of conservation significance, and/or localised surface or groundwater impact'
SuccessFactors	The company's people management system used to manage key people-related processes including annual performance goals and reviews, talent and succession management, remuneration and payroll, leave management and organisation structure and employee records
surface water discharge	Australia: PFW that meets with regulatory requirements and is discharged into natural water bodies (eg rivers, lakes) PNG: Treated domestic water that is discharged into water bodies
sustainable / sustainably	At Santos, sustainability is about striving to ensure safe operations, minimising environmental harm and greenhouse gas emissions, and creating long-term value for our stakeholders including our customers, community, employees, partners and shareholders; balancing the needs of today without undermining the ability to meet the demands of tomorrow
target	When referenced in the context of Santos, an outcome sought that Santos has identified a potential pathway, or pathways, toward delivery, subject to conditions and assumptions
total recordable injury rate (TRIR)	The number of recordable injuries (fatalities + lost time injuries + restricted work day cases + medical treatment cases) per million hours worked
total shareholder return (TSR)	Total capital growth plus dividends as a percentage of purchase price

Traditional Owner	An Aboriginal or Torres Strait Islander group or person recognised under law as having traditional and cultural associations with land or sea
voluntary principles of security and human rights (VPSHR)	Created in 2000, the Voluntary Principles is a tri-partite initiative collaborated on by governments, non-government organisations and industry participants, that promotes the implementation of a set of principles that guide companies on providing security for their operations while respecting human rights
water stressed areas	Areas which have been defined as suffering from water stress by the WRI Aqueduct Water Risk Atlas. Noting this resource mostly considers surface water sources for Australia due to limited groundwater observations to appropriately assess long-term trends
Yarning Circle	The use of a 'Yarning Circle' is an important process within Aboriginal and Torres Strait Islander culture. The Yarning Circle has been used by Aboriginal people and Torres Strait Islander peoples for centuries to be able to learn from a collective group, to build respectful relationships, and to preserve and pass on cultural knowledge. Its also a way to include Elders to share learnings, knowledge and Lore with the younger generations

riew (



# **Appendix 2 - Abbreviations and acronyms**

ACCU	Australian Carbon Credit Unit
ACHWG	Santos Aboriginal cultural heritage working group
ccs	carbon capture and storage
ccus	carbon capture, utilisation and storage
CEO	Chief Executive Officer
CO2	carbon dioxide
CSG	coal seam gas
CSIRO	Commonwealth Scientific and Industrial Research Organisation
СТАР	Climate Transition Action Plan
DAC	direct air capture
DLNG	Darwin LNG
FEED	front end engineering design
FID	final investment decision
FPDA	Fresh Produce Development Agency
gas	natural gas
GHG	greenhouse gas
GLNG	Gladstone LNG
GRI	Global Reporting Initiative
нс	hydrocarbon
IAP	Santos Indigenous advisory panel
IEA	International Energy Agency
IEA NZE	The IEA 2023 Net Zero by 2050 Scenario
IEA STEPS	The IEA 2023 World Energy Outlook Stated Policies Scenario
IFRS	International Financial Reporting Standards
IOGP	The International Association of Oil and Gas Producers

IPCC	Intergovernmental Panel on Climate Change
Ipieca	the global oil and gas association for advancing environmental and social performance across the energy transition
IPP	Santos Indigenous participation plan
IRR	internal rate of return
ISSB	International Sustainability Standards Board
KPI	key performance indicator
LEAP	Leaders, Experts and Professionals
LPG	liquid petroleum gas
LTIR	lost time injury rate
мои	memorandum of understanding
NDT	non-destructive testing
NGO	non-government organisation
PCC	post-combustion capture
PFW	produced formation water
РНА	Provincial Health Authorities
PNG	Papua New Guinea
PSC	production sharing contract
Santos	Santos Limited and its subsidiaries
S&P ACCS	The S&P Global Commodity Insights (previously IHS Markit) Accelerated Carbon Capture and Storage Scenario
SMS	Santos Management System
STEM	science, technology, engineering and maths
TCFD	Task Force on Climate-related Financial Disclosures
VET	vocational education and training

# **Appendix 3 - Units of measure**

barrel (bbl)	The standard unit of measurement for all oil and condensate production: one barrel equals 159 litres or 35 imperial gallons
boe	barrels of oil equivalent
mmboe	millions of barrels of oil equivalent
CO2e	Carbon dioxide equivalent, being a measure of greenhouse gases (eg carbon dioxide, methane, nitrous oxide) with equivalent potential impact on global warming as carbon dioxide
emissions reduction units	An emissions reduction unit represents one tonne of carbon dioxide equivalent (tCO2e) emissions reduction or removal
GtCO2e	billion tonnes of carbon dioxide equivalent
ha	hectares
joules	joules are the metric measurement unit for energy
kt	thousand tonnes
ML	million litres
ммвти	million British thermal units
Mt	million tonnes
MtCO2e	million tonnes of carbon dioxide equivalent
Mtpa	million tonnes per annum
petajoule	10 <sup>15</sup> x joules
ppm	parts per million

# **Appendix 4 - Summary data tables**

All data is presented on a gross operated basis unless specified otherwise. All dollar figures are expressed in US currency, Santos share, unless otherwise stated.

# Health, safety and security<sup>1,2</sup>

# **Workforce exposure hours**

	2023	2022	2021	2020	2019
Workforce exposure hours <sup>3</sup>					
Total employee work hours	7,658,000	7,630,000	5,900,000	5,580,000	5,590,000
Total contractor work hours	21,833,000	13,130,000	9,060,000	7,140,000	8,460,000
Percentage of employees and contractors covered by an occupational health and safety management system that is internally audited <sup>4</sup>	100%	100%	100%	100%	100%
Total hours	29,491,000	20,760,000	14,960,000	12,720,000	14,050,000

# **Work related injuries**

	202	23	20	22	202	21	20:	20	20	19
Fatalities	#	%	#	%	#	%	#	%	#	%
Number / rate - employees	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Number / rate- contractors	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total fatal accident rate (TFAR)		0.00		0.00		0.00		0.00		0.00
Lost Time Injuries (LTI) <sup>5</sup>										
Number / rate - employees	1	0.13	0	0	2	0.34	1	0.18	1	0.18
Number / rate - contractors	3	0.14	5	0.38	10	1.1	2	0.28	7	0.83
Total lost time injury rate (LTIR)		0.14		0.24		0.80		0.24		0.57
Total recordable injuries (TRI) <sup>6</sup>										
Number / rate - employees	14	1.83	9	1.18	20	3.39	9	1.61	12	2.15
Number / rate - contractors	66	3.02	35	2.67	43	4.75	36	5.04	53	6.26
Total recordable injury rate (TRIR)*		2.71		2.12*		4.21		3.54*		4.63*

\* Santos is working to improve the quality of its data and processes for capturing and reporting information. Due to the lag nature of incident reporting and subsequent verification, final rates may vary after the date of initial reporting. The 2022 and 2020 year TRIR results were adjusted due to subsequent verification and amendment of injuries. The 2019 TRIR results were adjusted due to an improvement in the granularity of hours worked information.

# Health, safety and security (continued)

# Work related injuries (continued)

	20:	23	20	22	20	21	20	20	2	019
Moderate harm injuries	#	%	#	%	#	%	#	%	#	%
Number / rate - employees	0	0	0	0	0	0	0	0	0	0
Number / rate - contractors	2	0.09	4	0.3	5	0.55	1	0.14	3	0.35
Total moderate harm injury rate		0.07		0.19		0.33		0.08		0.21
High potential event rate <sup>7</sup>	_									
High potential events with fatality potential rate		0.17		0.34		0.40		0.31		0.41
Number of high potential events with fatality potential		5		7		6		4		6

# **Process safety performance**8

	2023	2022	2021	2020	2019
Loss of primary containment					
Number of Tier 1 loss of primary containment incidents	5	3	1	2	4
Number of Tier 2 loss of primary containment incidents	9	7	4	7	5
Combined Tier 1 and 2 loss of primary containment incident rate	0.47	0.48	0.33	0.71	0.64
Loss of containment incidents					
Number of Tier 1 loss of containment incidents	5	2	1	1	4
Number of Tier 2 loss of containment incidents	9	4	4	7	4
Combined Tier 1 and 2 loss of containment frequency rate per 100mmboe available capacity	4.9	2.03	1.87	2.98	3.92

# **Road transport safety performance**

	2023	2022	2021	2020	2019
Driving high potential incident rate	0.02	0.03	0.04	0.33	0.16
Driving high potential incidents	1	1	1	9	5

# **Health, safety and security (continued)**

# Health and safety training<sup>9</sup>

Corporate Governance

	2023	2022	2021	2020	2019			
Average hours of health, safety and emergency management training per employee								
Field-based employees	14	NPR	NPR	NPR	NPR			
Office-based employees	2	NPR	NPR	NPR	NPR			
Average all employees	7.1	NPR	NPR	NPR	NPR			

# **Employee healthcare**

	20	23
General Practitioner service <sup>10</sup>		
Number of free general practitioner consults		2674
Total per cent and number of Australian-based employees who have accessed the free General Practitioner service	42%	1164

# **Conflict and security**

Security personnel traine	ed in Voluntary Princi	ples on Security and	Human Rights <sup>11</sup>
	Total number security personnel	Total number trained	Total per cent trained
Employees	4	4	100
Contractors	248	223	90
Total	252	227	90

Economic sustainability

167

NPR - not previously reported.

- Contractor work hours, incidents and frequency rates exclude contractors operating within their own health and safety management system that has no interface with the Santos Management System.
   Data included in tables is based on the classification in the event report database at the time of reporting and may be reclassified in the future.
- All rates calculated at 1,000,000 (one million) exposure hours worked (or for driving related HPEs, one million kilometres), excluding combined Tier 1 and 2 loss of containment incident rate which is calculated per 100mmboe of available capacity.
- 3. Employee exposure hours are calculated as per the IOGP industry guidance 2000 work hours per employee per annum. Contractors self report actual hours worked.
- 4. Santos applies a risk-based approach to assurance planning and execution following a 3 lines of defence model. First line of defence assurance is undertaken in the line with respect to their relevant asset or project. Second line of defence assurance is the responsibility of Regional Business Unit Managers. It must be planned on an annual basis and the plan shared with the relevant Level 2 Executive(s). Third line of defence assurance is the responsibility of the function and corporate internal audit team. It must be planned and approved on an annual basis by the Audit and Risk Committee of the Board.

- Main lost time injuries in 2023 were a result of being hit by moving objects, falls and other muscular stress.
- 6. Main total recordable injuries in 2023 were most commonly associated with hitting objects with a part of body, being hit by moving objects and other muscular stress.
- 7. High potential event rates are combined employee and contractor rates.
- 8. In 2023 Santos created a new definition (sub-set) to differentiate between various loss of primary containment incidents this was to assess severity of incidents taking into consideration design features (secondary containment) as well as process safety risk. Refer to glossary for definition of available capacity.
- Health and Safety training includes formal training captured in SucessFactors. Site-based ad-hoc training including toolbox talks and safety coaching is not included.
- 10. General Practitioner service available to Australian-based employees only, introduced in May 2023.
- 11. Security training data is self reported by security service providers.

169

# **Environment**

# **Biodiversity**

						20	23					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States	2022
Site statistics												
The total number of operational sites	#	18	12	1	3	2	1	5	4	1	1	NPR
The total area of operational sites	ha	45,207	43,818	566	244	32,069	10,820	119	1261	51	77	42,491
Have biodiversity impact assessments been conducted for your own operational sites <sup>1, 2</sup>	Y/N	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	NPR
Operations footprint												
Percentage of construction footprint remediated after 12 months <sup>3</sup>	%	0	11.30	3.1	0	3.8	25.6	0	0	0	0	NPR
Total tenements	ha	28,351,106	26,011,091	1,241,379	11,271,689	4,308,597	1,553,658	7,635,768	1,638,844	647	700,524	28,117,039
Operations footprint <sup>4</sup>	ha	45,279	43,818	566	244	32,069	10,820	119	1,333	51	77	42,491
Rehabilitated sites returned to government or landholder <sup>5</sup>	ha	4,977	4,977	18	0	1,253	3,706	0	0	0	0	4,977
Protected areas within tenements <sup>6</sup>	ha	1,375,787	1,371,622	48,884	50,812	211,481	1,060,404	41	4,165	0	0	1,433,137
Operations within protected areas <sup>7</sup>	ha	7,058	7,058	0	2	1,242	5,773	41	0	0	0	6,631
Cumulative biodiversity offsets	ha	44,502	44,267	390	0	23,705	20,172	0	0	0	235	NPR

NPR - not previously reported.

- 1. Fauna and/or flora surveys and assessments are undertaken by suitably qualified independent external professional.
- 2. Santos notes that due to the nature of our operations, biodiversity impact assessments are required at an asset level. Santos has assessed on this level, and present this as such.
- 3. This metric is and remains low due to the nature of the business model of creating disturbance and keeping the infrastructure operational for protracted periods of time (ie 25+ years). Much of gathering flowlines are reinstated within 12 months, but will be maintained in a state of operational effectiveness (eg no trees over the pipeline) until decommissioning and full rehabilitation.
- 4. This has increased for most areas in line with the development of the assets to sustain production.
- 5. Currently, Santos systems do not differentiate between those sites in different stages of rehabilitation, and as such there are sites within this figure that are more progressed than others.
- 6. Area that is protected from any harm during operational activities, and where the environment remains in its original state with a healthy and functioning ecosystem (304-2016).
- 7. Where mandated, Santos uses direct land-based offsets to meet its offset obligations. Of the offsets reported, 625 ha are classified as indirect and while they may contain land-based projects or protection, they are not directly linked to a specific disturbance area.

# **Environment (continued)**

### Water

	W nea Leste	United States	<b>2022</b> NPR
	0	0	NPR
	0	0	NPR
0			
0			
0			
	755	0	2,534
202,183	969 202,18	0	304,389
0	796	116	313
1,250	295 1,25	0	20,068
0	0	13	NPR
88	,453	21	NPR
0	0	0	NPR
0	0	0	NPR
0	0	0	NPR
0	0	0	NPR
0	0	0	NPR
69 69 69 60 63 63 60 60 60 60 60 60 60 60 60 60 60 60 60	96 79 29	95 202,183 96 0 95 1,250 0 0 0 0	69 202,183 0 96 0 116 95 1,250 0 0 0 13  53 88 21 0 0 0 0 0 0 0

# **Environment (continued)**

# Water (continued)

						20	23					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States	2022
Total water withdrawal in areas of water	stress											
Total water withdrawal from all areas and	d sources fro	m areas wit	h water stre	ss and extre	me water st	ress as a % o	f total water	withdrawa	2, 3			
Produced water	%	0	0	0	0	0	0	0	0	0	0	NPR
Third party water	%	0	0	0	0	0	0	0	0	0	0	NPR
Total water withdrawal in areas of water	stress											
A breakdown of total water withdrawal f	rom each so	urce <sup>2</sup>										
Freshwater (≤1,000 mg/L Total Dissolved Solids)	1,000m3	0	0	0	0	0	0	0	0	0	0	0
Other water (>1,000 mg/L Total Dissolved Solids)	1,000m3	132	132	0	0	0	0	132	0	0	0	0
Produced water generated												
Produced water and flowback fluid generated during activities <sup>1</sup>	1,000m3	22,026	20,481	94	0	9,705	5,497	5,185	295	1,250	0	0
Produced water and flowback fluid generated during activities in areas of water stress	%	0	0	0	0	0	0	0	0	0	0	0
Produced water reused												
Percentage of produced water and flowback fluid that was discharged directly to the environment or indirectly discharged through a third party, such as a local wastewater treatment plant	%	9	9	0	0	0	32	3	0	0	0	0

# **Environment (continued)**

# Water (continued)

	2023											
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States	2022
Produced water reused												
Percentage of produced water and flowback fluid that was injected	%	30	25	0	0	0	3	95	84	100	0	NPR
Percentage of produced water and flowback fluid that was recycled for use in other wells, in fracturing fluids or in other drilling and production processes	%	40	4	0	0	89	3	0	0	0	0	NPR
Water discharge												
Breakdown of water discharge by the fol	lowing sour	ce⁴										
Surface water	1,000m3	1,918	1,764	0	0	0	1,764	0	46	0	108	NPR
Groundwater <sup>6</sup>	1,000m3	0	0	0	0	0	0	0	0	0	0	NPR
Seawater	1,000m3	252,868	49,824	0	13	131	0	49680	947	202097	0	NPR
Aquifer injection water	1,000m3	6,767	5,149	0	0	0	222	4927	369	1248	1	NPR
Evaporation water <sup>5</sup>	1,000m3	4,660	4,660	0	21	0	4543	96	0	0	0	NPR
Beneficial use water	1,000m3	8,792	8,792	0	0	8629	163	0	0	0	0	NPR
Hydraulic fracturing												
Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	%	100	100	N/A	N/A	100	100	N/A	N/A	N/A	100	NPR
Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	%	0	0	N/A	N/A	0	0	N/A	N/A	N/A	0	NPR

# **Environment (continued)**

# Water (continued)

NPR - not previously reported.

- Produced formation water is produced as a by-product during the extraction of oil and gas, and is reused in operation where possible to reduce the amount of water needing to be extracted from other sources.
- Areas which have been defined as suffering from water stress by the WRI Aqueduct Water Risk Atlas.
   Noting this resource mostly considers surface water sources for Australia due to limited groundwater
   observations to appropriately assess long-term trends. Santos' definition of 'water stressed' considers
   areas which are exposed to high or extremely high levels of water stress.
- 3. Santos notes that the only operation area exposed to water stress is Varanus island, with the water used at this site taken from a bore then undergoing desalination.
- 4 Due to the unique nature of operations in the Cooper Basin, the water metrics for the Cooper Basin have all been included in the SA figures. This is a change from the prior year treatment of the data and is the cause for the movements in these regions.
- The complexities of measuring evaporation results in the use of an estimation process for the amount of water. This considers the weather conditions in the region, the nature of the pond used and the surface area exposure.

- There was no permeate releases to the Dawson River (Fairview QLD) in 2023 as Santos had to gain an additional Commonwealth approval to enable release to continue. This was gained in Q4. However, Santos have not resumed discharge activities to date.
- 7. Santos has used an estimation process to determine the amount of water consumed in the period. This is in line with GRI 303-5, which suggests estimation on the basis of withdrawal less discharge is equal to consumption. Given Santos' extensive reuse of PFW, this process is complex, any PFW which is returned to the environment is treated as a discharge, while that used for operational purposes is not. For that reason, consumption appears higher, as PFW classified internally as recycled for operation use is not considered discharge, regardless of its final end point.
- 8. Water withdrawn from the GAB has been included within the groundwater withdrawal numbers. Santos also reports on the specific quantities of extraction from the GAB.

# **Environment (continued)**

Corporate Governance

### Waste<sup>1, 2</sup>

						2023					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States
Waste generated (excluding effluent)											
Total waste generated	tonnes	119,044	73,425	78	1,039	57,546	13,373	1,389	6,467	242	38,910
Waste diverted from disposal (excluding	effluent)										
Total waste diverted from landfill	tonnes	81,750	65,845	45	852	53,009	10,973	966	619	108	15,178
Total hazardous waste diverted from disposal	tonnes	58,612	58,558	0	805	50,847	6,855	51	0	54	0
Preparation for reuse	tonnes	865	865	0	0	865	0	0	0	0	0
Recycling	tonnes	2,049	1,995	0	566	754	661	14	0	54	0
Other recovery operations	tonnes	55,698	55,698	0	239	49,228	6,194	37	0	0	0
Total non-hazardous waste diverted from disposal	tonnes	23,138	7,287	45	47	2,162	4,118	915	619	54	15,178
Preparation for reuse	tonnes	628	628	0	0	0	628	0	0	0	0
Recycling	tonnes	4,771	4,034	6	47	338	2,728	915	619	54	64
Other recovery operations	tonnes	17,739	2,625	39	0	1,824	762	0	0	0	15,114
Total hazardous waste diverted from disposal on-site	tonnes	50,243	50,243	0	239	43,178	6,826	0	0	0	0
Preparation for reuse	tonnes	19	19	0	0	19	0	0	0	0	0
Recycling	tonnes	832	832	0	0	189	643	0	0	0	0
Other recovery operations	tonnes	49,392	49,392	0	239	42,970	6,183	0	0	0	0

People and culture

Economic sustainability

173

**Appendices** 

# **Environment (continued)**

# Waste (continued)

						2023					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States
Waste diverted from disposal (excluding e	effluent)										
Total hazardous waste diverted from disposal off-site	tonnes	8,369	8,315	0	566	7,669	29	51	0	54	0
Preparation for reuse	tonnes	846	846	0	0	846	0	0	0	0	0
Recycling	tonnes	1,217	1,163	0	566	565	18	14	0	54	0
Other recovery operations	tonnes	6,306	6,306	0	0	6,258	11	37	0	0	0
Total non-hazardous waste diverted from disposal on-site	tonnes	5,764	3,448	0	0	199	3,249	0	619	0	1,697
Preparation for reuse	tonnes	621	621	0	0	0	621	0	0	0	0
Recycling	tonnes	2,507	1,888	0	0	8	1,880	0	619	0	0
Other recovery operations	tonnes	2,636	939	0	0	191	748	0	0	0	1,697
Total non-hazardous waste diverted from disposal off-site	tonnes	17,374	3,839	45	47	1,963	869	915	0	54	13,481
Preparation for reuse	tonnes	7	7	0	0	0	7	0	0	0	0
Recycling	tonnes	2,264	2,146	6	47	330	848	915	0	54	64
Other recovery operations	tonnes	15,103	1,686	39	0	1,633	14	0	0	0	13,417
Waste directed to disposal (excluding effl	uent)										
Total waste directed to disposal	tonnes	37,294	7,580	33	187	4,537	2,400	423	5,848	134	23,732

# **Environment (continued)**

# Waste (continued)

						2023					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States
Waste directed to disposal (excluding eff	luent)										
Total hazardous waste directed to disposal	tonnes	4,602	1,931	0	0	1,684	192	55	2,671	0	(
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	(
Incineration (without energy recovery)	tonnes	1,600	0	0	0	0	0	0	1,600	0	C
Landfilling	tonnes	3,002	1,931	0	0	1,684	192	55	1,071	0	(
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	C
Total non-hazardous waste directed to disposal	tonnes	32,692	5,649	33	187	2,853	2,208	368	3,177	134	23,732
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	C
Incineration (without energy recovery)	tonnes	2,741	0	0	0	0	0	0	2,741	0	(
Landfilling	tonnes	29,951	5,649	33	187	2,853	2,208	368	436	134	23,732
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	C
Total hazardous waste directed to disposal on-site	tonnes	2,832	189	0	0	0	189	0	2,643	0	C
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	C
Incineration (without energy recovery)	tonnes	1,600	0	0	0	0	0	0	1,600	0	(
Landfilling	tonnes	1,232	189	0	0	0	189	0	1,043	0	(
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	C

Environment

177

# **Environment (continued)**

# **Waste (continued)**

						2023					
	Unit	TOTAL	Australia	NSW	NT	QLD	SA	WA	Papua New Guinea	Timor- Leste	United States
Waste directed to disposal (excluding eff	luent)										
Total hazardous waste directed to disposal off-site	tonnes	1,770	1,742	0	0	1,684	3	55	28	0	0
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	0
Incineration (without energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	0
Landfilling	tonnes	1,770	1,742	0	0	1,684	3	55	28	0	0
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	0
Total non-hazardous waste directed to disposal on-site	tonnes	5,115	2,232	0	0	91	2,141	0	2,883	0	0
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	0
Incineration (without energy recovery)	tonnes	2,741	0	0	0	0	0	0	2,741	0	0
Landfilling	tonnes	2,374	2,232	0	0	91	2,141	0	142	0	0
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	0
Total non-hazardous waste directed to disposal off-site	tonnes	27,577	3,417	33	187	2,762	67	368	294	134	23,732
Incineration (with energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	0
Incineration (without energy recovery)	tonnes	0	0	0	0	0	0	0	0	0	0
Landfilling	tonnes	27,577	3,417	33	187	2,762	67	368	294	134	23,732
Other landfill operations	tonnes	0	0	0	0	0	0	0	0	0	0
Effluent	kilolitres	6,610	4,915	137	1,373	2,459	890	56	1,695	0	0

# **Environment (continued)**

# **Waste (continued)**

- 1. Changes to conversion rates There has been a significant adjustment of the conversion rates used for the translation of waste into tonnes. Historically Santos has used the rates provided by our waste contractors or by relevant government agencies. In 2023 Santos reviewed these rates, with changes made for a number of waste types. As such while the volume of waste has remained largely consistent, these revised conversion factors result in larger tonnage.
- 2. Change in nomenclature In an effort to provide more detailed reporting and to align classifications for waste recording and reporting to GRI Standards, Santos has reclassified its waste into hazardous and non-hazardous and further detail of whether this has then been diverted to or from disposal.

# **Spills and incidents**

	Unit	2023	2022	2021	2020	2019
Number significant spills³	#	0	0	0	0	0
Volume of significant spills	bbl	0	0	0	0	0
Number HC releases > 1bbl	#	4	5	3	1	1
Volume HC released, for releases > 1bbl	m3	1.33	27.56	28.18	2.5	4.75
Number PFW releases	#	20	94	107	72	122
Volume PFW released	m3	3,499	191	424	403	6396
Prosecutions	#	0	0	0	0	C
Penalty notices received from regulators	#	2	1	2	0	9
Administrative notices received from regulators	#	4	2	5	5	7
Prohibition notices received from regulators	#	0	0	0	0	С
Fines received from regulators	\$AUD	73,901	13,785	26,960	0	65,115

- 3. Significant spill Santos had no spills with environmental consequence of moderate or greater in 2023. The last spill of this nature was in 2013.
- GRI: Spill that is included in the organisation's financial statements, for example due to resulting liabilities, or is recorded as a spill by the organisation.

# **People and culture**

						20	23																
	тот	ΓAL	Aust	ralia	Papua Guii		Timor-	Leste <sup>1</sup>	United	States	Oth interna locat	ational	20	22	20	21	20	20	2019				
Employees by gender	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	% #				
Employees - Male	72.80	2813	72.71	2099	74.56	592	87.88	29	59.85	82	84.62	11	75.6	2684	76.0	2877	78.73	2143	NPR				
Employees - Female	27.20	1051	27.29	788	25.44	202	12.12	4	40.15	55	15.38	2	24.4	866	24.0	909	21.27	579	NPR				
Total		3864		2887		794		33		137		13		3550	37			2722	NPR				
Employment by type <sup>3</sup>																							
Permanent - Male	71.35	2757	71.94	2077	70.28	558	87.88	29	59.85	82	84.62	11	73.72	2617		NPR		NPR	NPR				
Permanent - Female	26.66	1030	26.84	775	24.43	194	12.12	4	40.15	55	15.38	2	23.89	848		NPR		NPR	NPR				
Fixed term - Male	1.45	56	0.76	22	4.28	34	-	0	-	0	-	0	1.89	67		NPR		NPR	NPR				
Fixed term - Female	0.54	21	0.45	13	1.01	8	-	0	-	0	-	0	0.51	18	18 1		NP		B NP			NPR	NPR
Total		3864		2887		794		33		137		13		3550	1 0		NPF		NPF			NPR	NPR
Full time - Male	71.66	2769	71.18	2055	74.56	592	87.88	29	59.85	82	84.62	11	74.31	2638		NPR		NPR		NPR	NPR		
Full time - Female	24.04	929	23.10	667	25.44	202	12.12	4	39.42	54	15.38	2	20.73	736	NPR			NPR	NPR				
Part time - Male	1.14	44	1.52	44	-	0	-	0	-	0	-	0	1.30	46		NPR		NPR	NPR				
Part time - Female	3.16	122	4.19	121	-	0	-	0	0.73	1	-	0	3.66	130		NPR		NPR	NPR				
Total		3864		2887		794		33		137		13		3550		NPR		NPR	NPR				
New employee hires (by a	ge)																						
Under 30 years	22.9	164	19.6	111	43.4	49	-	0	10.8	4	-	0	17.5	69		NPR		NPR	NPR				
30 to 50 years	61.5	441	65.3	369	47.8	54	100	1	45.9	17	-	0	64.5	254		NPR		NPR	NPR				
Over 50 years	15.6	112	15	85	8.8	10	-	0	43.2	16	100	1	18	71		NPR		NPR	NPR				
Total all ages		717		565		113		1		37		1		394		NPR		NPR	NPR				
Male	61.1	438	58.2	329	76.1	86	100	1	60	21	100	1	61	241	61	224	74.4	116	NPR				
Female	38.9	279	41.8	236	23.9	27	-	0	40	16	-	0	39	153	39	144	25.6	40	NPR				
Total Male and Female		717		565		113		1		37		1		394		368		156	NPR				

# People and culture (continued)

						20	23													
	тот	AL	Austr	alia	Papua Guir		Timor-L	.este	Unit Stat		Oth interna locat	tional	202	22	20:	21	202	<b>!</b> 0	201	9
	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
Graduates - Male	58.1	25	59.5	22	50	3	-	0	-	0	-	0	62	22	52	12	58	12	71	15
Graduates - Female	41.9	18	40.5	15	50	3	-	0	-	0	-	0	38	13	48	11	42	8	28	6
Total graduate hires		43		37		6		0		0		0		35		23		20		21
Voluntary leavers (by age)																				
Under 30 years	6.33	21	7.27	21	-	0	-	0	-	0	-	0	7.54	27	7.34	16	9.59	7		NPR
30 to 50 years	66.27	220	66.09	191	80.77	21	100	2	40	6	-	0	60.61	217	66.97	146	60.27	44		NPR
Over 50 years	27.41	91	26.64	77	19.23	5	-	0	60	9	-	0	31.84	114	25.69	56	30.14	22		NPR
Total all ages		332		289		26		2		15		0		358		218		73		NPR
Male	73.80	245	73.70	213	76.92	20	100	2	66.67	10	-	0	67.88	243	65.14	142	64.38	47		NPR
Female	26.20	87	26.30	76	23.08	6	-	0	33.33	5	-	0	32.12	115	34.86	76	35.62	26		NPR
Annual voluntary turnover %4	8.70		10.20		3.32		6.06		10.95			0	10.7	358	5.8	218	2.7	73		NPR
Workforce diversity <sup>5</sup>																				
Governance body employees <sup>6</sup>																				
Under 30 years - Male	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR		NPR
30 to 50 years - Male	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR		NPR
Over 50 years - Male	60	6	55.56	5	100	1	-	0	-	0	-	0	60	6	60	6		NPR		NPR
Under 30 years - Female	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR		NPR
30 to 50 years - Female	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR		NPR
Over 50 years - Female	40	4	44.44	4	-	0	-	0	-	0	-	0	40	4	44	4		NPR		NPR
Total Male	60	6	55.56	5	100	1	-	0	-	0	-	0	60	6	60	6	66.67	6		NPR
Total Female	40	4	44.44	4	-	0	-	0	-	0	-	0	40	4	40	4	33.30	3		NPR
Total governance body employees		10		9		0		0		0		0		10		10		9		NPR

# People and culture (continued)

						20	23												
	тот	AL	Austi	alia	Papua   Guin		Timor-	Leste <sup>1</sup>	United S	tates	Othe internati locatio	onal	20	22	20	21	202	ю.	2019
Workforce diversity	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	% #
CEO direct reports <sup>7</sup>																			
Under 30 years - Male	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR	NPR
30 to 50 years - Male	15.38	2	16.67	2	-	0	-	0	-	0	-	0	-	0	12	2		NPR	NPR
Over 50 years - Male	46.15	6	41.67	5	-	0	-	0	100	1	-	0	58	7	59	10		NPR	NPR
Under 30 years - Female	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR	NPR
30 to 50 years - Female	-	0	-	0	-	0	-	0	-	0	-	0	-	0	6	1		NPR	NPR
Over 50 years - Female	38.46	5	41.67	5	-	0	-	0	-	0	-	0	42	5	23	4		NPR	NPR
Total Male	61.54	8	58.33	7	-	0	-	0	100	1	-	0	58	7	58	12	70	7	NPR
Total Female	38.46	5	41.67	5	-	0	-	0	-	0	-	0	42	5	42	5	30	3	NPR
Total CEO direct reports		13		12		0		0		- 1		0		12		17		10	NPR
Leading Business																			
Under 30 years - Male	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR	NPR
30 to 50 years - Male	29.87	23	29.41	20	66.67	2	-	0	20	1	-	0	33	24	48	51		NPR	NPR
Over 50 years - Male	41.56	32	39.71	27	33.33	1	-	0	60	3	100	1	44	32	34	36		NPR	NPR
Under 30 years - Female	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0		NPR	NPR
30 to 50 years - Female	18.18	14	19.12	13	-	0	-	0	20	1	-	0	14	10	8	9		NPR	NPR
Over 50 years - Female	10.39	8	11.76	8	-	0	-	0	-	0	-	0	8	6	10	11		NPR	NPR
Total Male	71.43	55	69.12	47	100	3	-	0	80	4	100	1	78	56	81	87	87.50	63	NPR
Total Female	28.57	22	30.88	21	-	0	-	0	20	1	-	0	22	16	19	20	12.5	9	NPR
Total Leading Business		77		68		3		0		5		1		72		107		72	NPR

# People and culture (continued)

			2023																	
	тот	ΓAL	Austr	alia	Papua Guir		Timor-L	este¹	Unite State		Othe internati locatio	onal	20	22	20	21	202	20	2019	9
Workforce diversity	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
Leading Teams																				
Under 30 years - Male	0.19	1	0.22	1	-	0	-	0	-	0	-	0	-	0	-	0		NPR	1	NPR
30 to 50 years - Male	41.83	220	43.68	197	33.33	14	-	0	33.33	9	-	0	43	210	19	108		NPR	1	NPR
Over 50 years - Male	31.37	165	28.82	130	40.48	17	100	1	44.44	12	100	5	33	164	5	29		NPR	١	NPR
Under 30 years - Female	0.19	1	0.22	1	-	0	-	0	-	0	-	0	0.4	2	0.2	1		NPR	١	NPR
30 to 50 years - Female	20.91	110	21.73	98	26.19	11	-	0	3.70	1	-	0	19	91	45	252		NPR	1	NPR
Over 50 years - Female	5.51	29	5.32	24	-	0	-	0	18.52	5	-	0	5	24	30	168		NPR	1	NPR
Total Male	73.38	386	72.73	328	73.81	31	100	1	77.78	21	100	5	76	374	75	421	81.43	491	1	NPR
Total Female	26.62	140	27.27	123	26.19	11	-	0	22.22	6	-	0	24	117	25	137	18.6	112	1	NPR
Total Leading Teams		526		451		42		1		27		5		491		558		603	1	NPR
Leading Others																				
Under 30 years - Male	1.66	25	1.88	22	1.16	3	-	0	-	0	-	0	1	19	2	17		NPR	1	NPR
30 to 50 years - Male	44.78	674	45.51	532	43.80	113	33.33	1	38.57	27	20	1	47	621	53	590		NPR	1	NPR
Over 50 years - Male	20.66	311	18.14	212	30.23	78	-	0	25.71	18	60	3	22	292	19	217		NPR	1	NPR
Under 30 years - Female	1.59	24	1.45	17	2.71	7	-	0	-	0	-	0	1	16	1	12		NPR	1	NPR
30 to 50 years - Female	25.91	390	27.63	323	18.60	48	66.67	2	24.29	17	-	0	25	326	22	244		NPR	1	NPR
Over 50 years - Female	5.38	81	5.39	63	3.49	9	-	0	11.43	8	20	1	4	56	3	37		NPR	1	NPR
Total Male	67.11	1010	65.53	766	75.19	194	33.33	1	64.29	45	80	4	70	932	74	824	70.24	498	1	NPR
Total Female	32.89	495	34.47	403	24.81	64	66.67	2	35.71	25	20	1	30	397	26	293	29.8	211	1	NPR
Total Leading Others		1505		1169		258		3		70		5		1329		1117		709	1	NPR

# People and culture (continued)

						20	23													
	тот	AL	Aust	ralia	Papua Guir		Timor-	Leste <sup>1</sup>	United	States	Oth interna locat	ational	20	22	20	21	20	20	201	9
Workforce diversity	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#
Leading Self																				
Under 30 years - Male	9.18	160	8.60	102	11	54	-	0	8.82	3	50	1	6.9	114	6.5	129		NPR		NPR
30 to 50 years - Male	41.62	725	40.39	479	43.79	215	86.21	25	17.65	6	-	0	45	745	45.2	905		NPR		NPR
Over 50 years - Male	26.87	468	31.11	369	19.35	95	6.90	2	5.88	2	-	0	27.7	456	25.1	499		NPR		NPR
Under 30 years - Female	7.29	127	7.50	89	7.13	35	-	0	8.82	3	-	0	6.1	100	5.4	107		NPR		NPR
30 to 50 years - Female	11.94	208	9.27	110	15.89	78	6.90	2	50	17	50	1	11.1	183	13.8	274		NPR		NPR
Over 50 years - Female	3.10	54	3.12	37	2.85	14	-	0	8.82	3	-	0	2.9	48	3.7	73		NPR		NPR
Total Male	77.67	1353	80.10	950	74.13	364	93.10	27	32.35	11	50	1	79.9	1314	77.2	1533	81.61	1083		NPR
Total Female	22.33	389	19.90	236	25.87	127	6.90	2	67.65	23	50	1	20.1	331	22.8	454	18.4	244		NPR
Total Leading Self		1742		1186		491		29		34		2		1645		1987		1327		NPR
Training and education <sup>8</sup>		#		#		#		#		#		#		#		#		#		#
Average hours of employee training	ng																			
Leading Business - Male		6.6		7.0		0.3		0		8.1		0		NPR		NPR		NPR		NPR
Leading Teams - Male		10.7		10.5		9.6		0		16.5		11.3		NPR		NPR		NPR		NPR
Leading Others - Male		14.5		15.4		12.5		0.4		10.1		4.5		NPR		NPR		NPR		NPR
Leading Self - Male		27.2		30.3		19.7		25.1		7.2		0.5		NPR		NPR		NPR		NPR
Average training hours - Male		19.9		21.2		16.7		23.4		11.3		6.8		NPR		NPR		NPR		NPR
Leading Business - Female		5.6		5.1		0		0		16.0		0		NPR		NPR		NPR		NPR
Leading Teams - Female		12.7		12.0		20.3		0		12.4		0		NPR		NPR		NPR		NPR
Leading Others - Female		12.4		12.7		11.9		0		9.4		0		NPR		NPR		NPR		NPR
Leading Self - Female		18.3		23.5		10.9		0.2		7.6		0		NPR		NPR		NPR		NPR
Average training hours - Female		14.5		15.6		11.7		0.1		9.1		0		NPR		NPR		NPR		NPR
Average training hours for all employees		18.5		19.7		15.5		20.6		10.4		5.8		NPR		NPR		NPR		NPR

# **People and culture (continued)**

	20	23	20	22	202	21	2020	o
Females in field-based roles	%	#	%	#	%	#	%	#
Females in field-based roles <sup>9</sup>	11	181	9.2	144	8.8	144		NPR
Collective bargaining agreements								
Employees covered by collective bargaining agreements		6.90		7.50		7.30		NPR
Santos employee training hours by category <sup>10</sup>								
Field based training		40,901		37,802		42,846	4	42,094
Leadership and professional development		20,915		15,251		8,124		5,673
Technical		13,258		16,944		8,641		14,355
Health and wellbeing		0		876		2,608		1,012
Total training hours		75,074		70,873		62,219		63,134
Parental leave (Australia only)	%	#	%	#	%	#	%	#
Employees that were entitled to parental leave	100	2887	100	2714		NPR		NPR
Employees that took parental leave - Male	3.23	68	3.09	64		NPR		NPR
Employees that took parental leave - Female	10.28	81	10.4	67		NPR		NPR
Total employees that took parental leave	5.16	149	4.83	131		NPR		NPR
Employees that returned to work in the reporting period after parental leave - Male		53		44		NPR		NPR
Employees that returned to work in the reporting period after parental leave - Female		37		20		NPR		NPR
Total employees that returned to work in the reporting period after parental leave		90		64		NPR		NPR

# **People and culture (continued)**

	20	23	20	22	20	21	202	20
Aboriginal and Torres Strait Islander participation <sup>11, 12</sup>	%	#	%	#	%	#	%	#
CEO and direct reports	-	0	-	0		NPR		NPR
Leading Business	-	0	-	0		NPR		NPR
Leading Teams	0.4	2	-	0		NPR		NPR
Leading Others	1.3	15	0.88	9		NPR		NPR
Leading Self	3.2	36	2.48	27		NPR		NPR
Apprentices	22.4	13	23.10	9	31	8	33.30	9
Other (non-employees) <sup>13</sup>	0.9	6	0.80	5	3	17	1.60	8
Total employees	1.9	53	1.4	36	1.1	30	1.4	35
Total workforce	2.1	72	1.5	50	1.6	55	1.7	52

NPR - not previously reported.

- 1. Timor-Leste employees include Bayu-Undan platform employees.
- 2. Other international locations include Singapore and Japan.
- 3. In 2023, Santos Ltd did not engage any temporary or non-guaranteed hours employees (GRI 2-7).
- 4. Annual voluntary turnover %: calculated as total number of voluntary leavers in 2023, divided by the population as at end of 2023.
- 5. Employee level called LEAP category (Leading Business, Leading Teams etc.) are defined by an individual's job grade level.
- 6. Governance employees includes Santos Board and Chief Executive Officer and Managing Director.
- 7. CEO direct reports does not include administrative support or executive advisor roles.
- 8. Average training hours per employee only includes a specific subset of all training provided that is captured in SuccessFactors. It excludes some on the job training and mandatory inductions.
- 9. This is percentage of total workers in the field workforce that are female, not the percentage of females with field-based roles.

- 10. Health and wellbeing programs were largely employee and leader mental health awareness training which has been incorporated into leadership and professional development programs.
- 11. Aboriginal and Torres Strait Islander participation is expressed as a percentage of Australian-based employees, contractors occupying base business or project positions (does not include service company personnel or Bayu-Undan-based employees), and Australian Apprentices and Indigenous Development Program participants.
- 12. Individuals have the ability to record in SuccessFactors whether they identify as Aboriginal and/or Torres Strait Islander.
- 13. Apprentices and Indigenous Development Program participants were previously reported as part of 'Contractors' line so as to be include in the overall workforce numbers. They were then listed separately in the same table for visibility. This year we have reported apprentices as a separate line, and still included them in the overall workforce numbers. Indigenous Development Program participants are now included in the Other (non-employees) group. Historic data has been amended to be consistent with this approach.

# Community

# Cultural heritage management<sup>1</sup>

	2023	2022	2021	2020	2019
Cultural heritage assessments	477	257	421	360	520
Cultural heritage discoveries	517	212	204	460	550
Site management actions implemented	53	75	92	74	127
Cultural heritage officers engaged	206	63	88	56	128

## **Indigenous engagement**

	2023	2022	2021	2020	2019
Number of agreements with Indigenous groups <sup>1</sup>	96	96	95	88	88

## **Local employment**

	20	23	20	22	20	)21	20	20	2019	
International local employment <sup>2</sup>	%	#	%	#	%	#	%	#	%	#
Local employment - PNG	90	714	88	610	88	621		NPR		NPR
Local employment - United States	98	134	100	115	100	125		NPR		NPR
Local employment - Timor - Leste	100	14	100	14	100	14		NPR		NPR
Australian regional local employment										
Pilbara and Gascoyne	13	2	10	2	8	2	8	3		NPR
Northern Territory (Darwin)	100	98	100	100	100	104	100	24		NPR
New South Wales (Narrabri)	100	11	100	11	90	9	100	12		NPR
Gladstone	95	120	94	115	93	113	92	118		NPR
Roma <sup>4</sup>	19	54	17	46	16	40	21	52		NPR
Whyalla	94	46	92	45	86	43	87	48		NPR

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Report 2023

# **Community (continued)**

# Landholder and landowner agreements and engagements<sup>5, 6</sup>

	2023
Number of agreements with landholders and landowners	
Australia	3,953
United States	1
PNG	17
Number of engagements with landholders and landowners	
Australia	8,504
United States	37
PNG	2,331

### NPR - not previously reported.

- 1. Data is for Australia, Alaska and PNG.
- Local employment in PNG, Timor-Leste and United States recorded as number of employees on local
  employment contracts, versus those on expatriate assignment. Whole numbers reflect number of local
  employees. Timor-Leste figures only reflect Dili. Additional 19 Timorese locals on Bayu-Undan.
- 3. Australian local regional employment is those employees that live near their place of work. This is based on an individual's home post code, and whether that post code is in a Local Government Area surrounding the individual's place of work.
- 4. Roma includes surrounding regions.

# Local communities<sup>7</sup>

	2023
Percentage of operations with implemented community engagement and/or development programs <sup>8</sup>	100%
Country	Number of Complaints
Australia	7
Papua New Guinea	111
Timor-Leste	0
United States	1

- 5. Australian landholder engagement does not include consultation relating to the Barossa Gas Project.
- A landholder engagement includes landholders/landowners for the purposes of Santos undertaking authorised activities on their land. Engagement activity includes direct engagement, community briefing sessions, phone calls and email correspondence.
- 7. Please refer to the Addressing Landholder and Community Complaints Section for more information.
- 8. Implemented community engagement and/or development programs including community investment activities such as sponsorship agreements or grants.

# **Economic sustainability**

			20	23						
	Total	Australia	Timor-Leste	Papua New Guinea	Alaska	Other international locations	2022	2021	2020	2019
Procurement spend (\$ million) <sup>1</sup>										
Procurement spend	5,412	3,600	19	310	374	1,109	4,160	3,404	2,170	2,582
Local spend <sup>2</sup>	889	186	19	310	374	0	386	444	182	224
Indigenous spend <sup>3, 4, 5</sup>	257.2	42.7	0	65	149.5	0	64.6	59.1	3	4.2
Percentage of procurement spend with local suppliers	16.4%						9.2%	13%	8.7%	9.2%
Number of suppliers engaged <sup>6, 7</sup>	5,197	3,761	38	483	203	712	4,790	3,610	NPR	NPR
Community investment (\$,000)										
Community investment - voluntary <sup>8</sup>	25,534	5,899	482	1,782	17,229	142 <sup>9</sup>	NPR	NPR	NPR	NPR
Community investment - mandatory <sup>10</sup>	19,651	2,354			17,296		NPR	NPR	NPR	NPR
Santos Foundation	13,675			13,675			NPR	NPR	NPR	NPR
Total community investment	58,860	8,256	482	15,457	34,525	142	25.8	31.3	35.6	NPR
Number of community partnerships	453	184	12	213	41	3	NPR	NPR	NPR	NPR

**Appendices** 

			20	23						
	Total	Australia	Timor-Leste	Papua New Guinea	Alaska	Other international locations	2022	2021	2020	2019
Global tax contributions (\$million) <sup>11</sup>										
Corporate income tax (Santos share)	428	5	3	420	0	0	529	116	5	31
Royalty-related contribution (Santos share)	158	151	7	0	0	0	356	248	154	101
Government royalties, levies and excise (Santos share)	153	118	0	35	0	0	217	80	53	79
Employee tax (Santos share) <sup>12, 13</sup>	170	137	7	18	8	0	221	194	126	135
Total tax paid	909	411	17	473	8	0	1,323	638	338	346

# **Economic sustainability (continued)**

	2023
Substantiated types of misconduct by individuals	
Sexual harassment	1
Harassment	3
Policy / standard / code / procedure	6
Delegation of Authority	0
Misuse of company assets	1
Regulatory / government / external complaint	0
Total substantiated incidents of misconduct	11

	2023
Anti-competitive behaviour	
Number of legal actions pending or completed during the reporting period regarding anti-competitive behaviour and violations of anti-trust	nil
Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage regulations	nil
The total amount of monetary losses it incurred during the reporting period as a result of legal proceedings associated with associated with price gouging, price fixing, or price manipulation	nil

### NPR - not previously reported.

- 1. Procurement spend includes community investment spend.
- 2. Spend for 2019 included only Australia local spend.
- 3. Procurement spend with Indigenous and PNG landowner suppliers.
- 4. Procurement spend with Australian Indigenous suppliers includes direct and indirect spend.
- 5. From 2021 indirect spend is included in Australian Indigenous spend.
- 6. Number of suppliers engaged is a unique count of entities who received payment for goods and/or service.
- 7. Total suppliers engaged in 2021 does not include Oil Search legacy suppliers engaged.
- 8. Voluntary community investment includes sponsorship partnerships, community grants and donations with the aim of providing direct community benefit and community participation and/ or capacity building opportunities, Santos Foundation partnerships, grants and donations and community infrastructure projects.

- Community Investment in Other International locations refers to corporate partnerships with Stars Foundation, Clontarf Foundation and Primary Australian Literacy Mathematics and Science Program.
- 10. Mandatory community investment includes financial obligations that Santos is legally obligated to fulfil under a binding agreement, regulatory authority mandate, or other legal requirements, with the aim of providing social, economic, and/or environmental benefits to a community through third
- 11. Royalty-related taxation includes Petroleum Resource Rent tax in Australia and Additional Profits Tax in PNG and Timor-Leste. Government royalties and excise includes Development Levy in PNG based on two per cent of wellhead values of projects. For more information please refer to Santos' tax disclosure statements.
- 12. Increase in 2022 employee and global tax paid reported has been amended following lodgement of 2022 Tax Statement in December 2023.
- 13. Employee tax includes PAYG withholding tax, state payroll tax and fringe benefits tax.

# Climate

# Air emissions<sup>1, 2</sup>

Corporate Governance

	2023	2022	2021	2020	2019	2018	2017
Nitrogen oxides (NOx)		22.85	NPR	NPR	NPR	NPR	NPR
Sulfur oxides (SOx)		0.21	NPR	NPR	NPR	NPR	NPR
Total volatile organic compounds		5.67	NPR	NPR	NPR	NPR	NPR
Particulate matter (less than 10.0 micrometres)		0.18	NPR	NPR	NPR	NPR	NPR

People and culture

Economic sustainability

**Appendices** 

189

# **Energy consumption**

	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Energy consumption <sup>4,5,18</sup>	54	NPR	NPR	NPR	NPR	NPR	NPR

# **Greenhouse gas emissions**<sup>3, 4, 5, 6, 7, 8</sup>

Scope 1 greenhouse gas emissions <sup>10</sup>	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Gross operated emissions <sup>9</sup>	5.66	7.98	7.97	7.74	5.83	5.49	5.82
Equity share emissions	4.73	4.75	4.86	3.85	3.65	3.57	3.79
Equity share intensity	49	49	50	50	54	62	63
Operated and non-operated emissions (equity share)							
Total operated	3.17	3.99	4.46	NPR	NPR	NPR	NPR
Total non-operated	1.56	0.76	0.40	NPR	NPR	NPR	NPR
Emissions by location (equity share)							
Australia	3.38	3.79	4.26	NPR	NPR	NPR	NPR
Timor-Leste	0.15	0.19	0.31	NPR	NPR	NPR	NPR
United States	0.01	-	-	NPR	NPR	NPR	NPR
PNG	1.19	0.77	0.29	NPR	NPR	NPR	NPR
Emissions by greenhouse gas component (gross operated)							
Emissions from CO2	5.09	7.31	7.53	7.29	5.35	4.99	5.09
Emissions from CH4	0.56	0.67	0.44	0.44	0.47	0.49	0.72
Emissions from N2O	0.01	0.01	0.01	0.01	0.01	0.01	0.01

### **Appendices**

191

# **Climate (continued)**

## **Greenhouse gas emissions (continued)**

Scope 1 greenhouse gas emissions (continued) <sup>10</sup>	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Emissions by source (gross operated)							
Emissions from fuel	2.97	4.76	4.80	4.64	3.37	3.18	3.19
Emissions from flare	0.56	0.58	0.38	0.45	0.29	0.18	0.25
Emissions from vent	0.10	0.11	0.07	0.13	0.15	0.24	0.31
Emissions from CO2 removal	1.83	2.29	2.66	2.45	1.98	1.85	2.03
Emissions from fugitives	0.20	0.24	0.08	0.06	0.04	0.04	0.04
Scope 2 greenhouse gas emissions <sup>11</sup>							
Gross operated emissions <sup>9</sup>	0.53	0.61	0.61	0.57	0.53	0.39	0.31
Equity share emissions	0.19	0.22	0.22	0.22	0.20	0.16	0.13
Operated and non-operated emissions (equity share)							
Total operated <sup>9</sup>	0.14	0.17	0.17	NPR	NPR	NPR	NPR
Total non-operated	0.05	0.06	0.05	NPR	NPR	NPR	NPR
Emissions by location (equity share)							
Australia	0.19	0.22	0.22	NPR	NPR	NPR	NPR
Scope 1 and 2 emissions <sup>12</sup>							
Equity share emissions	4.92	4.97	5.08	5.04	3.85	3.73	3.92
Equity share intensity <sup>13</sup>	51	52	52	55	57	64	65
Scope 3 greenhouse gas emissions - operated and non-operated $^{14,15,10}$	5						
Emissions by category							
Category 11: Use of sold products	21.8	30	30.3	24.3	21.6	18.4	19.2
Categories 1 and 2: Purchased goods, services and capital goods	4.6	NPR	NPR	NPR	NPR	NPR	NPR
Category 10: Processing of sold products	5.5	NPR	NPR	NPR	NPR	NPR	NPR
Other categories <sup>17</sup>	0.8	NPR	NPR	NPR	NPR	NPR	NPR

### NPR - not previously reported.

- 1. Air emissions data is reported in kilotonnes for Australian operated assets. The emissions are reported on a calendar year basis in accordance with Australia's National Pollutant Inventory (NPI). NPI data is submitted to the National Pollutant Inventory in March; 2023 data will be reported in the 2025 Sustainability and Climate Report.
- 2. Emissions are predominantly calculated based on published emissions factors per the relevant NPI Emissions Estimation Technique Manuals. Site specific data may also be used for certain
- 3. Greenhouse gas emissions are reported on an Australian financial year basis (eg 2022-23 is from 1 July 2022 to 30 June 2023). Emissions are calculated in accordance with the National Greenhouse and Energy Reporting Act (2007), unless the asset is located in a jurisdiction that has a compliance emissions reporting framework, such as the United States Environmental Protection Agency's Greenhouse Gas Reporting Program.
- 4. Scope 1 and 2 emissions are rounded to two decimal places, Scope 3 emissions are rounded to one decimal place, and energy consumption and emissions intensities are rounded to the nearest whole number. The sum of individual rows in the table may not equal the aggregated totals due to rounding.
- 5. In 2023 a review of the NGER emissions reporting requirements identified that GLNG Downstream assets are under the operational control of GLNG Operations Pty Ltd as operator. Santos reported the 2022-23 emissions attributable to GLNG Downstream assets on behalf of GLNG Operations Pty Ltd within Santos' NGER report. From 2023-24 these emissions will be reported by GLNG Operations Pty Ltd. Data shown from 2022-23 includes the emissions and energy consumption attributable to GLNG Downstream as non-operated consistent with the determination of operational control.
- 6. The merger between Santos Limited and Oil Search Limited took place on 10 December 2021. Greenhouse gas emissions from the former Oil Search assets are included from that date.
- 7. Greenhouse gas emissions data is reported in MtCO2e and emissions intensity is reported in ktCO2e/mmboe.
- 8. Non-operated emissions data is based on information provided by the respective operator.
- 9. Scope 1 and 2 emissions for Australian-operated assets are independently audited each year.
- 10. Scope 1 emissions occur from sources controlled by Santos, for example emissions from fuel, flare and vent.
- 11. Scope 2 emissions are indirect, mainly electricity consumption. Assets in PNG and Timor-Leste generate their own electricity and heat and therefore produce Scope 2 emissions of less than 0.01 MtCO2e and are not included in the data tables.

- 12. The 2019-20 combined Scope 1 and 2 emissions and intensity of 5.04 MtCO2e and 55 ktCO2e/mmboe respectively are grossed up for post ConocoPhillips acquisition equity in acquired assets for that full year, as per representation in the 2021 Climate Change Report.
- 13. The production volume used to calculate Santos' equity emissions intensity is derived from Santos' publicly available production information. The Bayu Undan facility is covered by a production sharing contract ('PSC') arrangement with Timor-Leste. Consistent with the historical treatment for sustainability reporting, the post-PSC production volume associated with the Bayu Undan facility has been used in the emissions intensity calculation. In line with guidance from IPIECA Guidelines, the equity emissions attributed to the Bayu Undan facility are calculated by multiplying the gross emissions by the joint venture working interest.
- 14. Scope 3 emissions represent indirect emissions in our supply chain. Santos calculates and discloses its material Scope 3 emissions in observance of the World Resources Institute Greenhouse Gas Protocol Technical Guidance for Scope 3 Emissions.
- 15. Downstream Scope 3 emissions are expressed on a net equity basis and upstream Scope 3 emissions are expressed on a gross operated basis.
- 16. Downstream Scope 3 emissions include emissions attributable to gas and liquids produced by the Bayu-Undan facility. The Bayu-Undan facility is covered by a PSC arrangement with Timor-Leste. Santos has used the post-PSC sales figure (ie included emissions on those volumes that Santos is entitled to after distribution of production share to Timor-Leste) to calculate Scope 3 emissions. This is consistent with other sales and production volume reporting across the business.
- 17. Scope 3 other categories include Category 3 Fuel- and energy-related activities, Category 4 -Upstream transportation and distribution. Category 5 - Waste generated in operations. Category 6 -Business travel, Category 7 - Employee commuting, Category 9 - Downstream transportation and distribution.
- 18. Energy consumption is reported in petajoules for Australian operated assets on an Australian financial year basis. The quantity of energy consumed has been calculated in accordance with the reporting of net energy consumption under the National Greenhouse and Energy Reporting Act (2007). Net energy consumption comprises the use or disposal of energy from the operation of the facility and includes the quantity of energy used for fuel, flare, vent or other fugitive losses and purchased electricity. It excludes the consumption of energy for energy transformation (ie conversion from one form of energy commodity to another form), and the consumption of self-generated electricity for own use.

# **Appendix 5 - GRI index**

# **GRI** content index

**Statement of use:** Santos Ltd. has reported in accordance with the GRI Standards for the period 1 January - 30 December 2023. **GRI Standards:** GRI 1: Foundation 2021, GRI 2: General Disclosures 2021 and GRI 3: Material Topics 2021.

**Applicable GRI Sector Standard:** GRI 11 Oil and Gas Sector Standard.

This GRI Index has been structured using the GRI In accordance template listing the GRI Topics Standards first with the additional Oil and Gas Sector Topic Standard Disclosures added. Key references to disclosures have been added to sections of the report mainly related to the general disclosures (GRI 2) and those related to our material topics.

Santos has reported in accordance with the GRI Standards for the period 1 January - 30 December 2023. Requirement 6 of the "in accordance criteria" enables omissions for disclosures. This GRI Index documents omissions, reasons, and explanations. It is important to note that Santos has established a reporting working group on its pathway to adopt applicable standards and frameworks as discussed in the disclosure framework section of the report. This group will review and decide critical data for material topics. In 2024 Santos will be reviewing its data capture across material, important and significant topics to ensure sustainability topics are managed. As such where data is omitted a timeframe for reporting this has not yet been determined at this stage and cannot be included in the explanation.

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
General disclos	ures					
GRI 2: General Disclosures 2021	2-1 Organizational details	Report context, inside front cover Back cover About us, p. 4 Annual Report 2023				
	2-2 Entities included in the organization's sustainability reporting	Report context, inside front cover <u>Annual Report 2023</u>				
	2-3 Reporting period, frequency and contact point	Report context, inside front cover Back page				
	2-4 Restatements of information	Report context, inside front cover				
	2-5 External assurance	Report context, inside front cover Independent Auditors Report, pp. 215-220				
	2-6 Activities, value chain and other business relationships	About us, p. 4 Company strategy, p. 5 Our value chain, p. 14				
	2-7 Employees	Employment practices, p. 56 Appendix 4 - People and culture, p. 178				

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
GRI 2: General Disclosures 2021	2-8 Workers who are not employees		Yes	Information unavailable / incomplete	Information unavailable	
	2-9 Governance structure and composition	Sustainability and climate governance, p. 21				
	2-10 Nomination and selection of the highest governance body	Sustainability and climate governance, p. 21				
	2-11 Chair of the highest governance body	Sustainability and climate governance, p. 21 Message from the Chair of the Board, p. 2				
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability and climate governance, p. 21				
	2-13 Delegation of responsibility for managing impacts	Sustainability and climate governance, p. 21				
	2-14 Role of the highest governance body in sustainability reporting	Sustainability and climate governance, p. 21				
	2-15 Conflicts of interest	Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), p. 26				
	2-16 Communication of critical concerns	Sustainability and climate governance, pp. 21-23 Materiality assessment process, pp. 11-13				
	2-17 Collective knowledge of the highest governance body	Annual Report 2023  Corporate Governance Statement 2023				
	2-18 Evaluation of the performance of the highest governance body	Annual Report 2023 Sustainability and climate governance, pp. 21-24				
	2-19 Remuneration policies	Executive remuneration, p. 24 Annual Report 2023				
	2-20 Process to determine remuneration	Executive remuneration, p. 24 Annual Report 2023				

People and culture

Corporate Governance

**Appendices** 

Economic sustainability

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Other Source  GRI 2: General Disclosures 2021	2-21 Annual total compensation ratio		Yes	Confidentiality constraints	Confidential	
2021	2-22 Statement on sustainable development strategy	Message from the CEO, p. 3 Company strategy, p. 5 Our approach to sustainability, p. 10				
	2-23 Policy commitments	Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-29 Sustainability advocacy, p. 30 Human rights, pp. 35-36				
	2-24 Embedding policy commitments	Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-29 Sustainability advocacy, p. 30				
	2-25 Processes to remediate negative impacts	Governance policy, business ethics and regulatory compliance, pp. 32-34  Community land and resource rights, pp. 62-63  Decommissioning and rehabilitation, pp 46-49  Human rights, pp. 35-36				
	2-26 Mechanisms for seeking advice and raising concerns	Governance policy, business ethics and regulatory compliance, pp. 32-34				
	2-27 Compliance with laws and regulations	Governance policy, business ethics and regulatory compliance, p. 34	Partial	Information unavailable / incomplete	Incomplete data disclosures	
	2-28 Membership associations	Disclosure frameworks, p. 25 2023 Statement on Review of Industry Associations Sustainability advocacy, p. 30				
	2-29 Approach to stakeholder engagement	Our approach to sustainability, p. 10 Our stakeholders, pp. 16-18				
	2-30 Collective bargaining agreements	Appendix 4 - People and culture, p. 183	Partial	Information unavailable / incomplete	Information unavailable	

GRI Standard/ Other Source	Disclosure	Location	Omission			
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Our approach to sustainability, p. 10 Materiality assessment process, pp. 11-13				
	3-2 List of material topics	Materiality assessment process, pp. 11-13				
Economic perfor	3-3 Management of material topics	Our approach to sustainability, p. 10 Materiality assessment process, pp. 11-13 Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-29 See each material topic				
<b>Economic perfo</b>	rmance					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Economic contribution to society Economic contribution to society, pp. 82-89 Annual Report 2023				11.14.1
	201-1 Direct economic value generated and distributed	Economic sustainability, p. 84-85 <u>Annual Report 2023</u>				11.14.2 11.21.2
	201-2 Financial implications and other risks and opportunities due to climate change	Climate • Risk Management, pp. 150-155 Efficient capital allocation aligned with our climate transition activities, p. 132 Scenario analysis, pp. 144-148				11.2.2
	201-3 Defined benefit plan obligations and other retirement plans	Annual Report 2023				
	201-4 Financial assistance received from government		Yes	Information unavailable / incomplete	Information unavailable	11.21.3
Market presence	•					
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage		Yes	Information unavailable / incomplete	Information unavailable	

Environment People and culture

Economic sustainability

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Secto		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Market presence				'		•
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community		Yes	Information unavailable / incomplete	Information unavailable / incomplete	11.11.2 11.14.3
Indirect economi	ic impacts					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Economic contribution to society				
GRI 203: Indirect	203-1 Infrastructure investments and services supported	Economic contribution to society, pp. 84-89 The Santos Foundation, pp. 71-81				11.14.4
Economic Impacts 2016	203-2 Significant indirect economic impacts	Economic contribution to society, pp. 84-89 The Santos Foundation, pp. 71-81				11.14.5
Procurement pra	ctices				-	
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Supply chain management Economic sustainability, p. 82-89  • Supply chain management Our stakeholders, pp. 16-18 Human rights, pp. 35-36 Supply chain collaboration, p. 131				
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Economic sustainability, pp. 82-83 Appendix 4 - Supply chain spend, p. 187				11.14.6
Anti-corruption			1		'	
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Governance policy, business ethics and regulatory compliance Governance policy, business ethics and regulatory compliance, pp. 32-34 Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-27 Corporate Governance, pp. 20-25				11.20.1
GRI 205: Anti- corruption 2016	205-1 Operations assessed for risks related to corruption	Anti-corruption and sanctions compliance, pp. 33-34				11.20.2

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Anti-corruption			'	'	'	
GRI 205: Anti- corruption	205-2 Communication and training about anti-corruption policies and procedures	Anti-corruption and sanctions compliance, pp. 33-34				11.20.3
2016	205-3 Confirmed incidents of corruption and actions taken	Anti-corruption and sanctions compliance, pp. 33-34 Appendix 4 - Substantiated types of misconduct by individuals, p. 188				11.20.4
GRI 11: Oil and Gas Sector	Additional sector disclosure - Describe the approach to contract transparency		Yes	Confidentiality constraints	Confidential	11.20.5
2021	Additional sector disclosure - List the organization's beneficial owners and explain how the organization identifies the beneficial owners of business partners, including joint ventures and suppliers.		Yes	Confidentiality constraints	Confidential	11.20.6
Anti-competitiv	e behaviour					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Governance policy, business ethics and regulatory compliance Governance policy, business ethics and regulatory compliance, pp. 32-34 Corporate Governance, pp. 20-25 Anti-competitive behaviour, p. 34				11.19.1
GRI 206: Anti- competitive Behaviour 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Anti-competitive behaviour, p. 34 Appendix 4 - Anti-competitive behaviour, p. 188				11.19.2
Tax						
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Economic contribution to society Economic sustainability, pp. 82-85				11.21.1
GRI 207: Tax 2019	207-1 Approach to tax	Economic contribution to society, pp. 84-85 Taxation Policy Annual Report 2023				11.21.4
	207-2 Tax governance, control, and risk management	Annual Report 2023				11.21.5
	207-3 Stakeholder engagement and management of concerns related to tax	Economic contribution to society, pp. 84-85 2023 Performance data, p. 83 Our stakeholders - local community, p. 16 Political engagement, p. 30				11.21.6

Environment People and culture

Economic sustainability

# **GRI** content index (continued)

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Tax				'	'	
GRI 207: Tax 2019	207-4 Country-by-country reporting	Economic contribution to society, pp. 82-85 Summary of global tax contributions in 2023, p. 85 Appendix 4 - Global tax contributions, p. 187				11.21.7
GRI 11: Oil and Gas Sector 2021	Additional sector disclosure - Information required for oil and gas purchased from the state, or from third parties appointed by the state to sell on their behalf	Annual Report 2023	Partial	Information unavailable	Information unavailable	11.21.8
Energy						'
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Greenhouse gas (GHG) emissions	Partial	Information unavailable/ incomplete	Information unavailable/incomplete	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Appendix 4 - Climate, p. 189	Partial	Information unavailable/ incomplete	Information unavailable/ incomplete	11.1.2
	302-2 Energy consumption outside of the organization		Yes	Information unavailable/ incomplete	Information unavailable/ incomplete	11.1.3
	302-3 Energy intensity		Yes	Information unavailable/incomplete	Information unavailable/incomplete	11.1.4
	302-4 Reduction of energy consumption		Yes	Information unavailable/incomplete	Information unavailable/incomplete	
	302-5 Reductions in energy requirements of products and services		Yes	Information unavailable/incomplete	Information unavailable/incomplete	
Water and efflu	ents		1			
GRI 3: Material Topics 2021	3-3 Management of material topics	Significant topic - Water Water, p. 50				11.6.1
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Water, p. 50	Partial disclosure	Information unavailable or incomplete	Not material	11.6.2

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Water and efflu	ents		'			
GRI 303: Water and Effluents	303-2 Management of water discharge-related impacts	Water, p. 50 • Management of impacts and risks				11.6.3
2018	303-3 Water withdrawal	Appendix 4 - Water, pp. 169-170				11.6.4
	303-4 Water discharge	Appendix 4 - Water, p. 171				11.6.5
	303-5 Water consumption	Appendix 4 - Water, p. 169				11.6.6
Biodiversity						
GRI 3: Material Topics 2021	3-3 Management of material topics	Significant topic - Biodiversity Biodiversity, pp. 51-52 Appendix 4 - Biodiversity, p. 168				11.4.1
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Yes	Information unavailable/incomplete	Data incomplete	11.4.2
	304-2 Significant impacts of activities, products and services on biodiversity		Yes	Information unavailable/incomplete	Data incomplete	11.4.3
	304-3 Habitats protected or restored		Yes	Information unavailable/incomplete	Data incomplete	11.4.4
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations		Yes	Information unavailable/incomplete	Data incomplete	11.4.5
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Greenhouse gas (GHG) emissions Energy for progress: our approach to climate, pp. 98-99 Our emissions, p. 95				11.1.1
	Additional sector recommendations	Operational efficiencies, p. 113				11.1.1
	Describe actions taken to manage flaring and venting and the effectiveness of actions taken.	Methane reduction in action, p. 118				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Our emissions, p. 95 Emissions calculation and reporting, pp. 139-141				11.1.5

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Emissions				•	•	
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	Our emissions, p. 95 Emissions calculation and reporting, pp. 139-141				11.1.6
	305-3 Other indirect (Scope 3) GHG emissions	Our emissions, p. 95 Emissions calculation and reporting, pp. 139-143				11.1.7
	305-4 GHG emissions intensity	Our emissions, p. 95				11.1.8 11.2.3
	305-5 Reduction of GHG emissions	Climate Transition Action Plan, pp. 110-111 Santos' emissions reduction ambitions, targets and metrics, p. 137				11.2.3
	305-6 Emissions of ozone-depleting substances (ODS)		Yes	Information unavailable / incomplete	Data not available	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Yes	Information unavailable / incomplete	Some data available in National Pollutant Inventory (NPI)	11.3.2
Waste						
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Waste Waste, p. 53				11.5.1
GRI 306: Waste 2020	306-1 Waste generation and significant waste- related impacts	Waste, p. 53	Yes	Information unavailable / incomplete	Not material	11.5.2
	306-2 Management of significant waste-related impacts	Waste, p. 53	Yes	Information unavailable / incomplete	Not material	11.5.3
	306-3 Waste generated	2023 performance data - Hydrocarbon releases, p. 45 Appendix 4 - Waste, p. 173				11.5.4
	306-4 Waste diverted from disposal	Appendix 4 - Waste, pp. 173-174				11.5.5
	306-5 Waste directed to disposal	Appendix 4 - Waste, pp. 174-176				11.5.6

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Supplier environ	nmental assessment					
GRI 308: Supplier	308-1 New suppliers that were screened using environmental criteria		Yes	Information unavailable / incomplete	Information unavailable / incomplete	
Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken		Yes	Information unavailable / incomplete	Information unavailable / incomplete	
Employment						
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Employment practices, diversity and inclusion People and culture, pp. 54-59				11.10.1
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Appendix 4 - People and culture - New hires (2023), p. 178 Graph - New hires (2023), p. 55				11.10.2
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Appendix 4 - People and culture - Parental leave, p. 183				11.10.3
	401-3 Parental leave	Appendix 4 - People and culture - Parental Leave, p. 183 Graph - Parental leave - Australian employees, p. 183	Partially	Information unavailable / incomplete	Partial information	11.10.4 11.11.3
Labor/manager	nent relations					
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Employment practices, pp. 56-57 Decommissioning and rehabilitation, pp. 47-48				11.7.2 11.10.5
Occupational he	ealth and safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Health and safety Health and safety, pp. 38-41 Appendix 4 - Health and safety, pp. 165-167				11.9.1
GRI 403: Occupational	403-1 Occupational health and safety management system	Health and safety, p. 40				11.9.2
Health and Safety 2018	403-2 Hazard identification, risk assessment, and incident investigation	Health and safety, p. 40 • Potential impacts and risks				11.9.3

Environment People and culture

Economic sustainability

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Occupational h	ealth and safety					
GRI 403:	403-3 Occupational health services	Health and safety, pp. 38-41				11.9.4
Occupational Health and Safety 2018	403-4 Worker participation, consultation, and communication on occupational health and safety	Health and safety, pp. 40-41 • Safety culture and our engagement				11.9.5
	403-5 Worker training on occupational health and safety	Health and safety, pp. 40-41  • Safety culture and our engagement				11.9.6
	403-6 Promotion of worker health	Health and safety, pp. 40-41, 43				11.9.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and safety, pp. 40-41				11.9.8
	403-8 Workers covered by an occupational health and safety management system	Health and safety, pp. 40-41				11.9.9
	403-9 Work-related injuries	Health and safety, pp. 38-41 2023 performance data, p. 39 Appendix 4 - Health, safety and security, pp. 165-167				11.9.10
	403-10 Work-related ill health	Health and safety, pp. 40-41 Performance highlight - Awards, p. 43	Partially	Data unavailable / incomplete	Data not available	11.9.11
Training and ed	ucation					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Employment Practices, diversity and inclusion Employment practices, p. 57				11.10.1 11.11.1
GRI 404: Training and	404-1 Average hours of training per year per employee	Appendix 4 - Employee Training Hours, pp. 82-83 Graph - Employee training hours, p. 55				11.10.6 11.11.4
Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	Employment practices, pp. 56-57 Decommissioning and rehabilitation, p. 47				11.10.7 11.7.3
	404-3 Percentage of employees receiving regular performance and career development reviews		Yes	Information unavailable / incomplete	Information incomplete	

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Diversity and ed	qual opportunity				·	'
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Employment practices, diversity and inclusion Diversity and inclusion, pp. 58-59				11.11.1
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity and inclusion, pp. 58-59 Appendix 4 - Employee Female participation, pp. 178-184 Graph - Female participation, p. 55				11.11.5
	405-2 Ratio of basic salary and remuneration of women to men		Yes	Information unavailable / incomplete	Currently under review	11.11.6
Non-discrimina	tion					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Employment practices, diversity and inclusion Diversity and inclusion, pp.58-59 Human rights, pp. 35-36				11.11.1
GRI 406: Non- discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Governance policy, business ethics and regulatory compliance, pp. 32-34 Employment practices, diversity and inclusion, pp. 56-58				11.11.7
Child labor	'			'	<u>'</u>	'
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Human rights Human rights, pp. 35-36 Annual Modern Slavery Statement				11.12.1
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Human rights - potential impacts and risks, p. 35 Annual Modern Slavery Statement				
Forced or comp	oulsory labor					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Human rights Annual Modern Slavery Statement				11.12.1

People and culture

Environment

Economic sustainability

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Forced or compuls	sory labor					'
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human rights - potential impacts and risks, pp. 35-36				11.12.2
Security practices						
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Conflict, security and geopolitics Conflict security and geopolitics, pp. 36-37				11.18.1
GRI 11: Oil and Gas Sector 2021	Additional sector recommendations     List the locations of operations in areas of conflict     Describe the approach to ensuring respect for human rights by public and private security providers.	Conflict security and geopolitics, pp. 36-37 Human rights, pp. 35-36				11.18.1
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Risk assessment, monitoring of security providers, pp. 36-37 Human rights, pp. 35-36				11.18.2
Rights of Indigeno	ous peoples and Land and Resource Rights					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Community land and resource rights Community land and resource rights, pp. 62-66				11.16.1 11.17.1
	Additional sector recommendations     Community development programs     Describe the approach of engaging with Indigenous people.	Community land and resource rights, pp. 62-66 Appendix 4 - Community, pp. 185-186				11.17.1
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of Indigenous peoples	Community land and resource rights, pp. 62-66				11.17.2
GRI 11: Oil and Gas Sector 2021	Additional sector disclosure - List locations of operations where indigenous peoples are present or affected by activities of the organization	Community land and resource rights, pp. 62-66				11.17.3
	List the locations of operations that caused or contributed to involuntary resettlement or where such resettlement is ongoing		Yes	Not applicable	No involuntary resettlement	11.16.2
	Additional sector disclosure - Involved in FPIC from Indigenous peoples	Appendix 4 - Agreements with and indigenous groups, p. 185				11.17.4

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Local communit	ies					
GRI 3: Material Topics 2021	3-3 Management of material topics	Significant topic - Local communities Local Communities, pp. 67-70				11.15.1
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	<ul> <li>Local communities, pp. 67-70</li> <li>Community engagement</li> <li>The Santos Foundation, pp. 71-81</li> <li>Appendix 4 - Local communities, p. 186</li> </ul>				11.15.2
	413-2 Operations with significant actual and potential negative impacts on local communities	Local communities, pp. 67-70 • Community engagement The Santos Foundation, pp. 71-81				11.15.3
GRI 11: Oil and Gas Sector 2021	Report the number and type of grievances from local communities identified, including:  Percentage of the grievances that were addressed and resolved;  Percentage of the grievances that were resolved through remediation.	Community - 2023 Performance data, Community complaints, p. 61				11.15.4
Supplier social a	assessment		1		I	
GRI 414: Supplier Social	414-1 New suppliers that were screened using social criteria		Yes	Information unavailable/incomplete	Information unavailable	11.10.8 11.12.3
Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken		Yes	Information unavailable/incomplete	Information unavailable	11.10.9
Public policy						
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Governance policy, business ethics and regulatory compliance				11.22.1
		Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-29 Governance policy, business ethics and regulatory compliance, p. 32				
		Sustainability advocacy, pp. 30-31				
GRI 415: Public Policy 2016	415-1 Political contributions	Sustainability advocacy, p. 30  • Political engagement				11.22.2

### Santos Sustainability and Climate Report 2023 Corporate Governance Health and safety Environment People and culture Community Economic sustainability

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
GRI 11: Oil and G	Gas Sector Specific Topics					
Air emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Air Climate, p. 90	Yes	Information unavailable/ incomplete	Not material	11.3.1
GRI 416: Customer Health and Safety 2016	Disclosure 416-1 Assessment of the health and safety impacts of product and service categories		Yes	Information unavailable/ incomplete	Not material	11.3.3
Climate adaptat	tion, resilience and transition					
GRI 3: Material Topics 2021	3-3 Management of material topics  See above disclosures	Material topic - Climate adaptation, resilience and transition Company strategy, p. 5 Sustainability and climate governance, pp. 21-22 Executive remuneration, p. 24 Sustainability advocacy, pp. 30-31 Scenario analysis, pp. 145-148 Risk management, pp. 150-155				11.2.1
GRI 11: Oil and Gas Sector 2021	GRI 201-2 (11.2.2) and GRI 305-5 (11.2.3).  Additional sector disclosure  Describe the organization's approach to public policy development and lobbying on climate change	Sustainability advocacy, pp. 30-31 Santos' alignment with United Nations Sustainable Development Goals (UNSDGs), pp. 26-29 Climate Policy				11.2.4
Decommissioni	ng and rehabilitation					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Decommissioning and rehabilitation  Decommissioning and rehabilitation, pp. 46-49				11.7.1
	See above disclosures • GRI 402-1 (11.7.2) and GRI 404-2 (11.7.3).					11.7.2-11.7.3

GRI Standard/	Disclosure	Location	Omission			GRI Sector
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Decommissioni	ng and rehabilitation					
GRI 11: Oil and Gas Sector 2021	List the operational sites that:  • Have closure and rehabilitation plans in place;  • Have been closed;  • Are in the process of being closed.	Environment - 2023 performance data, land disturbance and rehabilitation, p. 45				11.7.4
	List the decommissioned structures left in place and describe the rationale for leaving them in place.	Decommissioning and rehabilitation, pp. 46-49	Partially	Information unavailable / incomplete	Incomplete	11.7.5
	Financial provision Report the total monetary value of financial provisions for closure and rehabilitation made by the organization, including post-closure monitoring and aftercare for operational sites.	Decommissioning and rehabilitation, p. 46 • Our approach Annual Report 2023				11.7.6
Asset integrity	and critical incident management					
GRI 3: Material Topics 2021	3-3 Management of material topics	Material topic - Asset integrity and critical incident management Asset integrity and critical incident management, pp. 41-42				11.8.1
GRI 306 Effluents and Waste	GRI 306-3 Significant spills	2023 performance data - Loss of containment incident (LOCI) rate, p. 39 Asset integrity and critical incident management, pp. 41-42  • Our actions and performance				11.8.2
GRI 11: Oil and Gas Sector 2021	Report the total number of Tier 1 and Tier 2 process safety events	Asset integrity and critical incident management, pp. 41-42  • Our actions and performance  Appendix 4 - Process safety performance, p. 166				11.8.3
	Oil Sands and mining operations		Yes	Not applicable	No oil sands mining or tailings facilities	11.8.4
Additional topic	cs related to other standards					
Data and cyber	security *SASB topic added					
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Data and cyber security Data and cyber security, p. 37				

# **GRI content index (continued)**

GRI Standard/	Disclosure	Location	Omission	GRI Sector		
Other Source			Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Business model re	esilience *SASB topic added					
GRI 3: Material Topics 2021	3-3 Management of material topics	Important topic - Business model resilience Economic Sustainability - Business resilience, p. 84				

# **Topics in the applicable GRI Sector Standards determined as not material**

### **GRI 11 Oil and Gas Sector Standard**

All twenty two oil and gas sector topics have been considered as part of Santos' materiality process

This sector standard enabled identification of three new topics added in 2023 - (11.2 Climate adaptation, resilience, and transition, 11.7 Decommissioning and rehabilitation, 11.8 Asset integrity and critical incident management)

As explained in the materiality section of the report the topics were categorised as material, significant or important. Santos has reported on ten material topics, some of which address more than one GRI Oil and Gas Sector Standard topic. The following sector topics have not been reported in full (listed below)

Topic	Location	Omission			
		Requirement(s) Omitted	Reason	Explanation	Standard Ref. No.
Topic 11.3 Air	Air, p. 52	Yes	Not Material	Not material in this reporting period Important topic - partial disclosure	11.3
Topic 11.4 Biodiversity	Biodiversity, pp. 51-52	Yes	Not Material	Not material in this reporting period Significant and emerging topic - partial disclosure	11.4
Topic 11.5 Waste	Waste, p. 52	Yes	Not Material	Not material in this reporting period Important topic - partial disclosure	11.5
Topic 11.6 Water and effluents	Water, p. 50	Yes	Not Material	Not material in this reporting period Significant and emerging topic - partial disclosure	11.6
Topic 11.13 Freedom of Association and collective bargaining	Appendix 4 - People and culture, p. 183	Yes	Not Material	Not material in this reporting period	11.13
Topic 11.15 Local Communities	Local Communities, pp. 67-70	Yes	Not Material	Not material in this reporting period Significant and emerging topic - partial disclosure	11.15
Topic 11.18 Conflict and Security	Conflict, security and geopolitics, pp. 36-37	Yes	Not Material	Not material in this reporting period Important topic - partial disclosure	11.18

# **Appendix 6 - TCFD Disclosures Index**

	Recommended disclosure	Guidance for energy group	Disclosure reference	Page
Governance Disclose the organisation's governance around climate- related risks and opportunities	a) Describe the board's oversight of climate- related risks and opportunities.	<ul> <li>(i) Processes and frequency by which the board and/or board committees (eg audit, risk or other committees) are informed about climate-related issues).</li> </ul>	<ul> <li>Overview: Materiality assessment process</li> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Risk Management.</li> </ul>	11 21 150
		(ii) Whether the board and/or board committees consider climate-related issues when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, and business plans as well as setting the organisation's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions and divestitures.	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Scenario Analysis</li> <li>Climate: Risk management.</li> </ul>	21 144 150
		(iii) How the board monitors and oversees progress against goals and targets for addressing climate-related issues.	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Efficient capital allocation aligned with our climate transition activities</li> <li>Climate: Risk management.</li> </ul>	21 132 150
	management's role in assessing and managing climate-related risks and opportunities.	(i) Whether the organisation has assigned climate-related responsibilities to management-level positions or committees; and, if so, whether such management positions or committees report to the board or a committee of the board and whether those responsibilities include assessing and/or managing climate-related issues.	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Energy for progress: our approach to climate.</li> </ul>	21 98
		(ii) A description of the associated organisational structure(s).	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Energy for progress: our approach to climate.</li> </ul>	21 98
		(iii) Processes by which management is informed about climate-related issues.	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Risk management.</li> </ul>	21 150
		(iv) How management (through specific positions and/or management committees) monitors climate-related issues.	<ul> <li>Corporate Governance: Sustainability and climate governance</li> <li>Climate: Risk management.</li> </ul>	21 150

	Recommended disclosure	Guidance for energy group	Disclosure reference	Page
Strategy Disclose the actual and potential impacts of climate-	a) Describe the climate-related risks and opportunities the organisation has identified over the short-, mediumand long-term.	(i) A description of what they consider to be the relevant short-, medium-and long- term horizons, taking into consideration the useful life of the organisation's assets or infrastructure and the fact that climate-related issues often manifest themselves over the medium and longer terms.	Overview: Company strategy     Climate: Risk management.	5 150
related risks and opportunities on the organisation's businesses, strategy,		(ii) Specific climate-related issues for each time horizon (short-, medium- and long-term) that could have a material financial impact on the organisation and distinguish whether the climate-related risks are physical or transition risks.	Climate: Risk management.	150
and financial planning where such information		(iii) A description of the process(es) used to determine which risks and opportunities could have a material financial impact on the organisation.	Climate: Risk management.	150
is material		(iv) Organisations should consider providing a description of their risks and opportunities by sector and/or geography, as appropriate. In describing climate-related issues, organisations should refer to Tables 1 and 2.	Climate: Risk management.	150
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	<ul> <li>(i) Organisations should disclose how identified climate-related issues have affected their businesses, strategy, and financial planning. Organisations should consider including the impact on their businesses and strategy in the following areas:</li> <li>Products and services</li> <li>Supply chain and/or value chain</li> <li>Adaptation and mitigation activities</li> <li>Investment in research and development</li> <li>Operations (including types of operations and location of facilities).</li> </ul>	Overview: Company strategy     Climate: Energy for progress: our approach to climate     Climate: Climate Transition Action Plan     Climate: Risk management.	5 98 110 150
		<ul> <li>(ii) Organisations should describe how climate-related issues serve as an input to their financial planning process, the time period(s) used, and how these risks and opportunities are prioritised. Organisations' disclosures should reflect a holistic picture of the interdependencies among the factors that affect their ability to create value over time. Organisations should also consider including in their disclosures the impact on financial planning in the following areas:</li> <li>Operating costs and revenues</li> <li>Capital expenditures and capital allocation</li> <li>Access to capital</li> <li>If climate-related scenarios were used to inform the organisation's strategy and financial planning, such scenarios should be described.</li> </ul>	Overview: Company strategy     Climate: Energy for progress: our approach to climate     Climate: Efficient capital allocation aligned with our climate transition activities.	5 98 132

	Recommended disclosure	Guidance for energy group	Disclosure reference	Page
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	<ul> <li>(iii) Supplemental Guidance for Non-Financial Groups Consider discussing how climate-related risks and opportunities are integrated into their (1) current decision-making and (2) strategy formulation, including planning assumptions and objectives around climate change mitigation, adaptation, or opportunities such as:</li> <li>R&amp;D and adoption of new technology</li> <li>Existing and committed future activities such as investments, restructuring, write-downs, or impairment of assets</li> <li>Critical planning assumptions around legacy assets, for example, strategies to lower carbon, energy, and/or water intensive operations</li> <li>How GHG emissions, energy, and water issues, if applicable, are considered in capital planning and allocation; this could include a discussion of major acquisitions and divestments, joint-ventures, and investments in technology, innovation, and new business areas in light of changing climate-related risks and opportunities</li> <li>The organisation's flexibility in positioning/repositioning capital to address emerging climate-related risks and opportunities.</li> </ul>	Overview: Company strategy Climate: Energy for progress: our approach to climate Climate: Efficient capital allocation aligned with our climate transition activities.	5 98 132
	c) Describe the resilience of the organisation's strategy, taking into consideration different climaterelated scenarios, including 2°C scenario.	<ul> <li>(i) Organisations should describe how resilient their strategies are to climate-related risks and opportunities, taking into consideration a transition to a lower carbon economy consistent with increased physical climate-related risks. Organisations should consider discussing:</li> <li>Where they believe their strategies may be affected by climate-related risks and opportunities</li> <li>How their strategies might change to address such potential risks and opportunities</li> <li>The climate-related scenarios associated time horizon(s) considered.</li> </ul>	<ul> <li>Overview: Company strategy</li> <li>Climate: Energy for progress: our approach to climate</li> <li>Climate: Scenario Analysis</li> <li>Climate: Risk management.</li> </ul>	5 98 144 150
		<ul> <li>(ii) Supplemental Guidance for Non-Financial Groups Organisations with more than one billion USD in annual revenue should consider conducting more robust scenario analysis to assess the resilience of their strategies against a range of climate-related scenarios, including a 2°C or lower scenario and, where relevant to the organisation, scenarios consistent with increased physical climate-related risks. Organisations should consider discussing the implications of different policy assumptions, macro-economic trends, energy pathways, and technology assumptions used in publicly available climate-related scenarios to assess the resilience of their strategies. For the climate-related scenarios used, organisations should consider providing information on the following factors to allow investors and others to understand how conclusions were drawn from scenario analysis:</li> <li>Critical input parameters, assumptions, and analytical choices for the climate-related scenarios used, particularly as they relate to key areas such as policy assumptions, energy deployment pathways, technology pathways, and related timing assumptions</li> <li>Potential qualitative or quantitative financial implications of the climate-related scenarios, if any.</li> </ul>	Climate: Scenario Analysis.	144

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

	Recommended disclosure	Guidance for energy group	Disclosure reference	Page
Risk Management	a) Describe the organisation's processes for identifying and assessing climaterelated risks.	(i) Organisations should describe their risk management processes for identifying and assessing climate-related risks. An important aspect of this description is how organisations determine the relative significance of climate-related risks in relation to other risks.	Overview: Materiality assessment process     Climate: Risk management.	11 150
		(ii) Organisations should describe whether they consider existing and emerging regulatory requirements related to climate change (eg limits on emissions) as well as other relevant factors considered	Climate: Emissions calculation and reporting Climate: Risk management.	139 150
		(iii) Organisations should also consider disclosing the following: processes for assessing the potential size and scope of identified climate-related risks and, definitions of risk terminology used or references to existing risk classification frameworks used.	Climate: Risk management.	150
	b) Describe the organisation's processes for managing climaterelated risks.	Organisations should describe their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept, or control those risks. In addition, organisations should describe their processes for prioritising climate-related risks, including how materiality determinations are made within their organisations.	Climate: Risk management.	150
	c) Describe how processes for identifying, assessing, and managing climaterelated risks are integrated into the organisation's overall risk management.	Organisations should describe how their processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management.	Climate: Risk management.	150
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 organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Organisations should provide the key metrics used to measure and manage climate-related risks and opportunities. Organisations should consider including metrics on climate-related risks associated with water, energy, land-use, and waste management where relevant and applicable. Where climate-related issues are material, organisations should consider describing whether and how related performance metrics are incorporated into remuneration policies. Where relevant, organisations should provide their internal carbon prices as well as climate-related opportunity metrics such as revenue from products and services designed for a low carbon economy.  Metrics should be provided for historical periods to allow for trend analysis. In addition, where not apparent, organisations should provide a description of the methodologies used to calculate or estimate climate-related metrics.	Corporate Governance: Sustainability and climate governance Climate: Our targets Climate: Our emissions Climate: Santos' emissions reduction ambitions, targets and metrics Appendix 4: Climate.	94 95 137

	Recommended disclosure	Guidance for energy group	Disclosure reference	Pag
detrics and Targets Disclose the metrics and targets used to assess and manage elevant climate- elated risks and apportunities where such information is material	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Supplemental Guidance for Non-Financial Groups  (i) For all relevant metrics, Energy Group organisations should consider providing historical trends and forward-looking projections (by relevant country and/or jurisdiction, business line, or asset type).	<ul><li>Climate: Our emissions</li><li>Appendix 4: Climate.</li></ul>	95 189
		(ii) Organisations should also consider disclosing metrics that support their scenario analysis and strategic planning process and that are used to monitor the organisation's business environment from a strategic and risk management perspective.	<ul> <li>Climate: Santos' emissions reduction ambitions, targets and metrics</li> <li>Climate: Scenario Analysis.</li> </ul>	137 144
		(iii) Energy Group organisations should consider providing key metrics related to GHG emissions, energy, water, land use and, if relevant, low carbon alternatives that address potential financial aspects of shifting demand, cost of supply, reserves, and capital allocation.	<ul><li>Climate: Our emissions</li><li>Appendix 4: Environment</li><li>Appendix 4: Climate.</li></ul>	95 168 189
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	(i) Organisations should provide their Scope 1 and Scope 2 GHG emissions and, if appropriate, Scope 3 GHG emissions and the related risks. GHG emissions should be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across organisations and jurisdictions. As appropriate, organisations should consider providing related, generally accepted, industry-specific GHG efficiency ratios.	<ul> <li>Climate: Our emissions</li> <li>Climate: Santos' emissions reduction ambitions, targets and metrics</li> <li>Appendix 4: Climate.</li> </ul>	95 137 189
	c) Describe the targets used by the organisation to manage climaterelated risks and opportunities and performance against targets.	Organisations should describe their key climate-related targets such as those related to GHG emissions, water usage, energy usage, etc, in line with anticipated regulatory requirements or market constraints or other goals.  Other goals may include efficiency or financial goals, financial loss tolerances, avoided GHG emissions through the entire product life cycle, or net revenue goals for products and services designed for a low carbon economy. In describing their targets, organisations should consider including the following: whether the target is absolute, or intensity based; time frames over which the target applies; base year from which progress is measured and key performance indicators used to assess progress against targets. Where not apparent, organisations should provide a description of the methodologies used to calculate targets and measures.	<ul> <li>Climate: Our targets</li> <li>Climate: Our emissions</li> <li>Climate: Santos' emissions reduction ambitions, targets and metrics</li> <li>Climate: Risk management</li> <li>Appendix 4: Climate.</li> </ul>	94 95 137 150 189

Overview Corporate Governance Health and safety Environment People and culture Community Economic sustainability Climate Appendices

# **Appendix 7 - Investor feedback and our response**

Following the release of the 2023 Report, Santos sought feedback from investors and investor groups on our decarbonisation strategy, targets and Climate Transition Action Plan.

The table below outlines the key themes raised by shareholders and the steps taken to address, or otherwise explain our rationale, in response to this feedback.

Investor feedback area	2023 Report approach	Section disclosed in Report	Page number
<b>Climate Transition Action Plan</b>			
<ul><li>Details relating to our offset strategy</li><li>Progress against our</li></ul>	Updated our Climate Transition Action Plan to demonstrate progress against our decarbonisation strategy and we have quantified the proportion each initiative is contributing to our progress towards our 2030 target. We continue to disclose capital invested and forward-looking project investment over coming years on CTAP initiatives.	Scope 1 and 2 Emissions Reduction Plan	106
<ul><li>decarbonisation strategy</li><li>Capital investment</li></ul>		Climate Transition Action Plan	110
Scope 3 emissions			
Santos' 2040 net-zero target covers Scope 1 and 2 emissions,	The most significant proportion of Santos Scope 3 emissions are from downstream in our value chain, being the transportation, processing and use of the products we generate. We have carried out detailed analysis on our Scope 3 emissions, and are	Scope 3 Emissions Reduction Plan	107
and does not include an absolute Scope 3 target	disclosing additional material categories for 2022-23. We are committed to working across our value chain, with our suppliers, customers and third party industries to review how we can reduce, capture, remove and store emissions.	Emissions calculation and reporting	139
Methane/fugitives			
Further detail on our methane emissions abatement plans	Santos has become signatories to two international methane reduction pledges:  • The Aiming for Zero Methane Emissions initiative  • The Zero Routine Flaring by 2030 initiative.  These commitments show Santos' dedication to be a leader in reducing methane emissions and allow us to join a group of governments, companies and institutions to collaborate and partner together to make necessary steps towards climate change mitigation.	Operational efficiencies	113
Say on Climate voting cadence			
Some shareholders would prefer an annual say on climate	To provide transparency for our shareholders, we will continue to publish an annual Climate Report, including our progress towards our targets and Climate Transition Action Plan. We invite continued feedback ahead of the annual publication of our Climate Report and intend to provide stakeholders with a three-yearly, non-binding advisory vote to express their view on whether our approach remains suitable. This three-yearly interval will not only allow time for us to make progress with our Climate Transition Action Plan, but also ensure the evolution of technology, science, markets, policy and experience over time is considered in our approach to the energy transition.	Climate Transition Action Plan	110
Transition to NZE			
Paris Agreement alignment	There is currently no globally accepted framework or criteria for oil and gas companies to demonstrate alignment with the Paris Agreement, noting that the Science-based Targets Initiative is currently not accepting commitments or validating targets for companies in the Oil and Gas sector.  We note that our net-zero target year of 2040 is sooner than the majority of scenarios analysed which align with the temperature objectives of the Paris Agreement, including the IEA NZE.	A pathway to decarbonisation - the role of natural gas in the energy transition	104
Scenario Analysis			
Updated scenario analysis given the changes in our portfolio	With the release of new IEA scenarios we have undertaken detailed scenario analysis, incorporating assessment of our resilience to a number of scenarios representing different climate future states.	Scenario Analysis	144

# **Appendix 8 - Assurance statement**



215

**Appendices** 

Economic sustainability

# Independent Limited Assurance Report to the Management and Directors of Santos Limited ('Santos')

### What we assured

Ernst & Young ('EY', 'we') were engaged by Santos to undertake a limited assurance engagement as defined by Australian Auditing Standards, hereafter referred to as a 'review', over **certain sustainability and climate change disclosures in Santos' Sustainability and Climate Report 2023,** for the year ended 31 December 2023. We reviewed the following Subject Matter in accordance with the noted Criteria, as defined in the following table:

Sustainability and Climate Report 2023  report content  GRI Standards 2021 GRI 3: Material Topics  Qualitative disclosures within Santos' Sustainability and Climate Report 2023 in relation to Santos' material topics  Santos' reported performance of its sustainability metrics as follows, for the period 1 January 2023 to 31 December 2023: Health and safety  Total Recordable Injury Rate ("TRIR"): 2.71  Lost Time Injury Rate ("TRIR"): 0.14  Spills and Incidents  Number of hydrocarbon releases to the environment greater than 1 barrel: 4  Volume of hydrocarbon releases to the environment greater than 1 barrel (m²): 1.33 m³  Community contributions  Community investment (USD \$ million): \$58.860  Diversity (% representation of female employees by level)  Board: 40%  CEO Direct Reports: 38.46%  Leading Business: 28.57%  Leading Sems: 26.62%  Leading Dems: 26.62%  Leading Dems: 26.62%  Leading Self: 22.33%  Waste  Waste Diverted from Landfill (tonnes): 37,294 tonnes  Waste  Waste Diverted from Landfill (tonnes): 37,294 tonnes  Water  Produced formation water (m²): 22,025 m³  Seawater discharge (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater discharge (m²): 252,868 m³  Footprint of operations  Tenements (ha): 26,351,06 ha  report content  Demandate Amender mandal standard stand	What EY assured (Limited Assurance Subject Matter)	What EY assured it against (Criteria)
Qualitative disclosures within Santos' Sustainability and Climate Report 2023 in relation to Santos' material topics  Santos' reported performance of its sustainability metrics as follows, for the period 1 January 2023 to 31 December 2023.  Health and safety  Lotal Recordable Injury Rate ('TRIR'): 2.71  Lost Time Injury Rate ('TRIR'): 0.14  Spilis and Incidents  Number of hydrocarbon releases to the environment greater than 1 barrel: 4  Volume of hydrocarbon releases to the environment greater than 1 barrel (m³): 1.33 m³  Community investment (USD \$\mathref{million}\$) \$\mathref{million}\$ \$m	Santos' identification and reporting of its material sustainability issues, risks and opportunities described in the Sustainability and Climate Report 2023	report content
Santos' reported performance of its sustainability metrics as follows, for the period 1 January 2023 to 31 December 2023:  Health and safety  Total Recordable Injury Rate ('TRIR'): 2.71  Lost Time Injury Rate ('TRIR'): 2.14  Spills and Incidents  Number of hydrocarbon releases to the environment greater than 1 barrel: 4  Volume of hydrocarbon releases to the environment greater than 1 barrel (m²): 1.33 m²  Community contributions  Community investment (USD \$ million): \$58.860  Diversity (% representation of female employees by level)  Board: 40%  CEO Direct Reports: 38.46%  Leading Business: 28.57%  Leading Teams: 26.62%  Leading Gelf: 22.33%  Waste  Waste Diverted from Landfill (tonnes): 81,750 tonnes  Waste Diverted from Landfill (tonnes): 37,294 tonnes  Waste Diverted to Disposal (tonnes): 37,294 tonnes  Water  Produced formation water (m²): 22,025 m²  Seawater withdrawal (m²): 252,794 m²  Seawater withdrawal (m²): 252,794 m²  Seawater withdrawal (m²): 252,794 m²  Seawater of ischarge (m³): 252,868 m³  Footprint of operations  Tenements (ha): 28,351,106 ha		GRI Standards 2021 GRI 3: Material Topics
Health and safety  Total Recordable Injury Rate ("TRIR"): 2.71  Lost Time Injury Rate ("LTIR"): 0.14  Spills and Incidents  Number of hydrocarbon releases to the environment greater than 1 barrel: 4  Volume of hydrocarbon releases to the environment greater than 1 barrel (m³): 1.33 m³  Community contributions  Community investment (USD \$ million): \$58.860  Diversity (% representation of female employees by level)  Board: 40%  CEO Direct Reports: 38.46%  Leading Business: 28.57%  Leading Others: 32.89%  Seawater discharge (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater withdrawal (m²): 252,794 m³  Seawater discharge (m²): 252,868 m²  Footprint of operations  Tenements (ha): 28,351,106 ha  including:  GRI 403: Occupational Health and Safety 2018  GRI 303: Water and Effluents 2018  GRI 405: Diversity and Equal Opportunity 2016  GRI 405: Diversity and Equal Opportunity 2016  GRI 405: Diversity and Equal Opportunity 2016  Jensel 40; Diversity	Qualitative disclosures within Santos' Sustainability and Climate Report 2023 in relation to Santos' material topics	Management's own publicly disclosed criteria
Seawater discharge (m³): 252,868 m³  Footprint of operations  Tenements (ha): 28,351,106 ha  A member firm of Ernst & Young Global Limited Liability limited by a scheme approved under Professional	Santos' reported performance of its sustainability metrics as follows, for the period 1 January 2023 to 31 December 20 Health and safety  Total Recordable Injury Rate ('TRIR'): 2.71  Lost Time Injury Rate ('LTIR'): 0.14  Spills and Incidents  Number of hydrocarbon releases to the environment greater than 1 barrel: 4  Volume of hydrocarbon releases to the environment greater than 1 barrel (m³): 1.33 m³  Community contributions  Community contributions  Community investment (USD \$ million): \$58.860  Diversity (% representation of female employees by level)  Board: 40%  CEO Direct Reports: 38.46%  Leading Business: 28.57%  Leading Teams: 26.62%  Leading Others: 32.89%  Leading Self: 22.33%  Waste  Waste Diverted from Landfill (tonnes): 81,750 tonnes  Waste Directed to Disposal (tonnes): 37,294 tonnes  Water  Produced formation water (m³): 22,025 m³	including:  GRI 403: Occupational Health and Safety 2018  GRI 303: Water and Effluents 2018  GRI 413: Local Communities 2016  GRI 405: Diversity and Equal Opportunity 2016  GRI 306: Waste 2020  GRI 304: Biodiversity 2016  IPIECA's Oil and gas industry guidance on voluntary sustainability reporting (where appropriate)  Santos' internally developed reporting criteria as disclosed
Footprint of operations  A member firm of Ernst & Young Global Limited  Liability limited by a scheme approved under Professional	Seawater withdrawal (m³): 252,794 m³	
► Tenements (ha): 28,351,106 ha  A member firm of Ernst & Young Global Limited  Liability limited by a scheme approved under Professional		
	Protected areas within Santos' tenements (ha): 1,375,787 ha	

# Independent Limited Assurance Report to the Management and Directors of Santos Limited ('Santos') (continued)



Corporate Governance

What EY assured (Limited Assurance Subject Matter)	What EY assured it against (Criteria)
Santos' reported performance of its Greenhouse Gas Emissions metrics as follows:	➤ World Resources Institute/World Business Council for Sustainable Development
Scope 1 emissions (for the period 1 July 2022 - 30 June 2023):	('WRI'/'WBCSD') Greenhouse Gas Protocol
➤ Total gross operated emissions: 5.66 million tonnes of carbon dioxide equivalent ('MtCO₂-e')	Santos' internally developed reporting criteria as disclosed in the Sustainability and Climate Report 2023
➤ Total equity share emissions: 4.73 MtCO₂-e	National Greenhouse and Energy Reporting Act 2007
➤ Total equity share intensity: 49 ktCO₂e/mmboe	National Greenhouse and Energy Reporting Regulation 2008
Scope 2 emissions (for the period 1 July 2022 – 30 June 2023):	National Greenhouse and Energy Reporting Regulation (Measurement) Determination
▶ Total gross operated emissions: 0.53 MtCO₂-e	
▶ Total equity share emissions: 0.19 MtCO₂-e	
Scope 3 emissions (for the period 1 July 2022 - 30 June 2023):	
▶ Total equity share emissions for Santos' upstream Scope 3 emissions, including Category 1 and 2: Purchased goods and services and purchased capital goods: 4.6 MtCO₂-e	
Total equity share emissions for Santos' Scope 3 Category 10: Processing of Sold Products: 5.5 MtCO <sub>2</sub> -e	
Total equity share emissions for Santos' Scope 3 Category 11: Use of Sold Products: 21.8 MtCO <sub>2</sub> -e	

A member firm of Ernst & Young Global Limited
Liability limited by a scheme approved under Professional Standards Legislation

### What EY assured (Limited Assurance Subject Matter) What EY assured it against (Criteria) Santos' disclosures in relation to the Task Force on Climate-related Financial Disclosures Recommendations of the TCFD ('TCFD') Recommendations, detailed as follows: World Resources Institute/World Business Council for Sustainable Development Governance ('WRI'/'WBCSD') Greenhouse Gas Protocol a. Board oversight Santos' internally developed reporting criteria as disclosed in the Sustainability and b. Management's role Climate Report 2023 Strategy The criteria also includes the list of principles that have been used by Santos to determine the approach to reporting against the TCFD Recommendations 'Principles for Effective a. Climate-related risks and opportunities Disclosures'. This includes that the assumptions and approach supporting Santos' scenario b. Impact on the organisation's business, strategy and financial planning analysis and potential portfolio implications should:: c. Resilience of the organisation's strategy Present relevant information Risk Management Be specific and complete a. Risk identification & assessment process ▶ Be clear, balanced, and understandable b. Risk management process c. Integration into overall risk management ▶ Be consistent over time ▶ Be comparable among organizations within a sector, industry, or portfolio Metrics and Targets a. Climate-related metrics in line with strategy and risk management process ▶ Be reliable, verifiable, and objective b. Scope 1, 2, 3 GHG metrics and the related risks Be provided on a timely basis c. Climate-related targets and performance against targets Including the assumptions and approach supporting Santos' scenario modelling, including: > The reasonableness of the process undertaken by Santos to conduct its scenario analysis The relevance of the external climate scenarios referenced Transparency - all the assumptions and inputs into the scenario analysis are appropriately documented and verifiable · Accuracy - the assumptions utilised in the scenario analysis include the most relevant and reliable available inputs Completeness - the assumptions and inputs that form the basis of Santos' scenario analysis do not omit relevant, well-established and publicly available inputs that could reasonably be expected to affect decisions of the intended users made on the basis of that subject matter information

People and culture

Economic sustainability

**Appendices** 

217

Environment

# **Independent Limited Assurance Report to the Management** and Directors of Santos Limited ('Santos') (continued)



# What EY assured (Limited Assurance Subject Matter) Santos' disclosures in relation to the Climate Transition Action Plan. specifically: Santos' disclosures with reference to The Task Force on Climate-related Financial Disclosures Recommendations 'Principles for Effective Disclosures', as presented in Santos' Climate Transition Action Plan within the Sustainability and Climate Report 2023 The approach supporting Santos' planned actions and climate-related goals and targets as outlined in the Plan

### What EY assured it against (Criteria)

- Recommendations of the Task Force on Climate-related Financial Disclosures
- Santos' internally developed reporting criteria as disclosed in the Sustainability and Climate Report 2023
- The criteria also includes the list of principles that have been used by Santos to determine the approach to reporting against the TCFD Recommendations 'Principles for Effective Disclosures'. This includes that the assumptions and approach supporting Santos' Climate Transition Action Plan should:
- Present relevant information
- Be specific and complete
- > Be clear, balanced, and understandable
- Be consistent over time
- ▶ Be comparable among organizations within a sector, industry, or portfolio
- ▶ Be reliable, verifiable, and objective
- Be provided on a timely basis

### Our Conclusion:

### ► Limited Assurance

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe the Subject Matter has not been prepared, in all material respects, in accordance with the Criteria defined above

## **Kev responsibilities**

### EY's responsibility and independence

Our responsibility is to express a conclusion on the Subject Matter based on our review.

We have complied with the independence and relevant ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies 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, which requires the firm to

design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Santos' responsibility

Santos' management is responsible for selecting the Criteria, and for presenting the Subject Matter in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

# Our approach to conducting the review

We conducted this review in accordance with the Australian Auditing and Assurance Standards Board's Australian Standard on Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ASAE 3000'), the Standard for Assurance on Greenhouse Gas Statements ('ASAE 3410'); as well as Assurance Engagements involving Corporate Fundraisings and/ or Prospective Financial Information ('ASAE 3450') for disclosures pertaining to scenario analysis; as well as the terms of reference for this engagement as agreed with Santos on the dates of the relevant signed engagement letters. That standard requires that we plan and perform our engagement to express a conclusion on whether anything has come to our attention that causes us to believe that the Subject Matter is not prepared, in all material respects, in accordance with the Criteria, and to issue a report.

# **Summary of review procedures** performed

A review consists of making enquiries, primarily of persons responsible for preparing the Subject Matter and related information and applying analytical and other review procedures.

The nature, timing, and extent of the procedures selected depend on our judgement, including an assessment of the risk of material misstatement, whether due to fraud or error. The procedures we performed included, but were not limited to:

Interviewing Santos personnel to understand the reporting processes at the group and site level, including management's processes to: identify Santos' material issues; identify Santos' material climate-related risks and opportunities;

- and understand Santos' processes for collecting, collating and reporting the selected performance of its sustainability metrics and greenhouse gas emissions metrics
- Checking the Santos Sustainability and Climate Report 2023 to understand how Santos' identified material issues, risks and opportunities are reflected within the qualitative disclosures
- Evaluating whether the information disclosed in the Limited Assurance Subject Matter is consistent with our understanding of sustainability performance at Santos
- Evaluating the suitability of the Criteria and that the Criteria have been applied appropriately to the Subject Matter
- Conducting site procedures at Santos on a sample basis, based on our professional judgement, to evidence site level data collection and reporting as well as to identify completeness of the sustainability performance data and statements included within the Subject Matter
- Undertaking analytical procedures of the quantitative disclosures in the Subject Matter
- Reviewing data, information or explanation about the sustainability performance data and statements included within the Subject Matter
- Reviewing other information within the Santos Sustainability and Climate Report 2023 for consistency and alignment to other quantitative and qualitative information within the Subject Matter
- On a sample basis, based on our professional judgement, re-performing calculations to check accuracy of claims within the Subject Matter

- On a sample basis, based on our professional judgement, agreeing qualitative and quantitative statements within the Subject Matter and underlying data to source information to assess completeness of claims, including process conversations, review of invoices, incident reports, and meter data
- Checking the assumptions and approach supporting Santos' scenario analysis and portfolio assessment were consistent with the principles specified in the Criteria
- Identifying and testing the reasonableness of assumptions and approach supporting Santos' climate scenarios
- Checking the Climate Transition Action Plan to understand how Santos' identified material climate-related transition risks and opportunities and decarbonisation ambitions are reflected in qualitative disclosures
- Checking if the approach supporting Santos' planned actions and climate-related goals and targets in the Climate Transition Action Plan was consistent with the principles specified in the Criteria
- Identifying and testing the reasonableness of assumptions and approach supporting Santos' planned actions and climate-related goals and targets

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

# Independent Limited Assurance Report to the Management and Directors of Santos Limited ('Santos') (continued)

### Inherent limitations

Procedures performed in a review 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 review engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to assessing aggregation or calculation of data within IT systems.

The GHG quantification process is subject to scientific uncertainty, which arises because of incomplete scientific knowledge about the measurement of GHGs. Additionally, GHG procedures are subject to estimation and measurement uncertainty resulting from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge.

### Other matters

We have not performed assurance procedures in respect of any information relating to prior reporting periods, including those presented in the Subject Matter. Our report does not extend to any disclosures or assertions made by Santos relating to future performance plans and/or strategies disclosed in the Sustainability and Climate Report 2023.

## **Use of our Assurance Report**

We disclaim any assumption of responsibility for any reliance on this assurance report to any persons other than management and the Directors of Santos, or for any purpose other than that for which it was prepared. Our review included web-based information that was available via web links as of the date of this statement. We provide no assurance over changes to the content of this web-based information after the date of this assurance statement.

Ernst & Young

Fiona Hancock Partner Ernst & Young Adelaide, Australia 20 February 2024

# **Santos Limited**

ABN 80 007 550 923

### **Registered head office**

Ground Floor, Santos Centre 60 Flinders Street Adelaide SA 5000 Australia

GPO Box 2455 Adelaide SA 5001 Australia

Telephone: +61 8 8116 5000 Facsimile: +61 8 8116 5050

### **Australian Securities Exchange listing**

STO

### **Santos website**

To view our Annual Reports, shareholder and company information, news announcements and presentations, quarterly activities reports and historical information, please visit our website at <u>Santos.com</u>

### **General enquiries**

Santos Ltd GPO Box 2455 Adelaide SA 5001

Telephone: +61 8 8116 5000 Email Santos via the Contact Us portal at our website Santos.com

### **Designed by Brighter**