

To	Company Announcements Office	Facsimile	1300 135 638
Company	ASX Limited	Date	17 September 2021
From	Helen Hardy	Pages	161
Subject	Origin Energy 2021 Annual Report		

Please find attached a release on the above subject.

Regards



Authorised for lodgement by:
Helen Hardy
Company Secretary

02 8345 5000

Where all good change starts



Kurt Logan
Instrumentation and
Electrical Technician
Integrated Gas

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A message from Scott and Frank



“This year we focused on our position as a leader for positive change with our *Where all good change starts* campaign.”

Welcome to the 2021 Annual Report

Origin’s purpose, *Getting energy right for our customers, communities and planet*, drives everything we do as an organisation. This purpose has guided us over the past 12 months as, despite the many challenges of the COVID-19 pandemic, our people went the extra mile to ensure we could provide affordable and reliable energy to our customers. We thank our teams for this dedication.

This year we focused on our position as a leader for positive change with our *Where all good change starts* campaign. Origin’s strategy is all about that positive change as we connect our customers to the energy and technologies of the future and lead the transition to a low-carbon economy.

To lead that change, Origin has a team of close to 5,000 people across Australia and the Pacific. That team includes Kurt Logan, who features on the front cover of this report. Kurt is a technician at our Condabri facility in Queensland, which as part of our Australia Pacific LNG joint venture, supplies around 30 per cent of Australia’s east coast gas demand.

Progress on our commitments

Origin’s FY2021 financial performance reflected a strong operational position against the headwinds of volatile commodities markets for electricity, natural gas and oil. Against this backdrop of economic uncertainty resulting from the pandemic, we demonstrated the strength of our diversified model: Integrated Gas with its gas production and exploration and Energy Markets with its position in generation and as a multi-product retailer with energy and broadband services.

Our focus on capital discipline and cost management allowed us to balance the priorities of paying down debt and delivering dividends to shareholders, while continuing to invest in targeted growth opportunities.

For the full year, Origin announced a statutory loss of \$2,291 million, primarily comprising \$2,247 million in non-cash charges, including impairments and a deferred tax liability. Our Underlying Profit of \$318 million reflected lower commodity prices in the Energy Markets and Integrated Gas divisions. This was partially offset by lower operating costs for Australia Pacific LNG, retail cost savings, lower interest expense and oil hedging gains.

Origin’s Free Cash Flow remained robust at \$1,140 million, enabling debt reduction of \$519 million, while allowing for investment in growth and an unfranked final dividend of 7.5 cents per share.

In the gas growth assets, we continued exploration activities in the prospective Beetaloo and Canning basins. Our future fuels activities gathered momentum, with a number of hydrogen feasibility projects including a green ammonia export project in Tasmania’s Bell Bay expected to be completed by the end of 2021.

Origin is progressing work on updating our existing emissions reduction targets consistent with a 1.5 degree pathway. Our long-term aim is to achieve net zero Scope 1 and Scope 2 emissions by 2050, and as part of that ambition we introduced a short-term target to reduce our Scope 1 emissions by an average of 10 per cent per annum between FY2021 and FY2023, from a 2017 baseline. This target is linked to executive remuneration, and in FY2021 we achieved an 11 per cent decline in Scope 1 emissions compared to the baseline.

Our business performance

In Integrated Gas, Australia Pacific LNG maintained production of 263 petajoules (Origin share) driven by outstanding field performance, associated capital expenditure reductions and further improvements in operational efficiency. Underlying EBITDA was \$1,135 million - a 35 per cent reduction on the prior year, primarily due to lower realised oil prices that were partially offset by lower costs.

Australia Pacific LNG's performance was a standout, safely curtailing output when the market was subdued, and rapidly ramping up production when demand recovered. In FY2021, Australia Pacific LNG matched previous daily production records and shipped a record 130 cargoes for the year.

Across Energy Markets, lower electricity gross profit was driven primarily by the impact of lower wholesale prices on tariffs, higher network and metering costs, and assistance provided to customers adversely affected by the pandemic. This was partially offset by a reduction in the cost of energy. Lower gas margins were driven by a combination of lower gas tariffs, the roll-off of long-term capacity contracts and higher supply costs. Underlying EBITDA for Energy Markets was \$991 million, down 32 per cent on the prior year.

In our Retail business our Strategic Net Promoter Score reached a record high and customer accounts increased by 30,000 through our Everyday Rewards plan and growth segments, including solar, broadband and community energy services. Our investment in Octopus Energy continues to exceed expectations. The rollout of the Octopus customer service platform, Kraken, gathered momentum with more than 250,000 customers benefiting from improved customer service. We continue to lead the industry on cost performance, achieving \$110 million in savings since 2018 and we will achieve further savings as the Kraken rollout progresses.

Outlook

In our full-year results, we gave guidance to Underlying EBITDA in FY2022 of between \$1,850-\$2,150 million, compared to \$2,048 million in FY2021. This reflects weaker performance from Energy Markets largely offset by an expected stronger contribution from Australia Pacific LNG.

We anticipate that challenging conditions for our Energy Markets business will continue this year, ahead of a rebound in FY2023 if current forward prices continue and flow through to tariffs.

Australia Pacific LNG is expected to achieve a distribution breakeven of between US\$20-US\$25 a barrel. With realised prices expected to improve in FY2022 due to the lag in oil price flowing through to long-term contract prices, it is estimated that net cash flows from Australia Pacific LNG to Origin will be greater than \$1 billion in FY2022.

As always, guidance is provided on the basis that market conditions and the regulatory environment do not materially change, and is subject to the potential ongoing impacts of COVID-19 on demand and customer affordability.

Looking forward

Scott Perkins became Chairman at our Annual General Meeting in October 2020, after five years as a director. We were pleased to welcome Ilana Atlas, Mick McCormack and Joan Withers to the Board as independent Non-executive Directors. Their contribution to the Board has already proven invaluable. We thank Gordon Cairns, our previous Chairman, and Teresa Engelhard for their dedication to Origin during their directorships.

As we enter Origin's third decade, we are excited by the possibilities that will come with the energy transition and look forward to supporting our customers while continuing to play our part in reducing Australia's emissions. Origin's business model is well placed to prosper in a low-carbon world. As shareholders we hope you share our excitement for the future.

We look forward to welcoming many of you to this year's Annual General Meeting on 20 October, which will again be held virtually in response to the COVID-19 pandemic.

Thank you for your continued support.



Scott Perkins
Chairman



Frank Calabria
Chief Executive Officer

About Origin



ASX TOP
100

Leading integrated energy company

Listed on the Australian Securities Exchange in 2000



4.3 million customer accounts

Electricity, gas, LPG and broadband customers across Australia and the Pacific



5,000 employees

Inclusivity in the workplace; leading parental support



Climate transition embedded in our strategy

Australia's first approved science-based emissions targets



Powering Australia

7,500 MW generation portfolio, including 1,400 MW owned and contracted renewables and storage



37.5% interest in Australia Pacific LNG

Exporting to Asia; supplies ~30% of Australian east coast gas demand



Supporting Australian communities

The Origin Energy Foundation has contributed more than \$32 million over 11 years



Driving future energy innovation

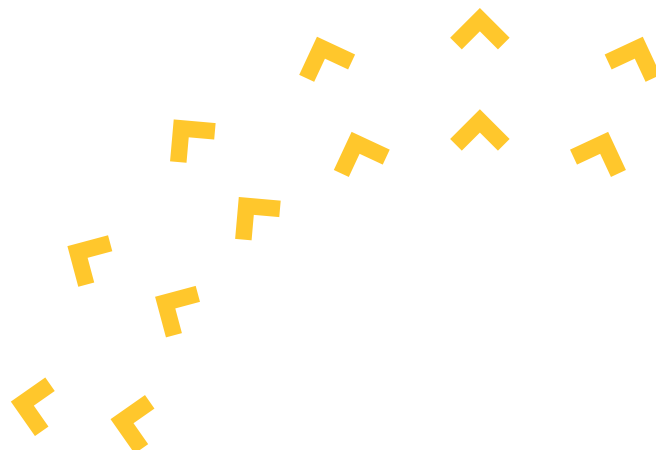
20% interest in Octopus Energy, investing in new technology, start-ups and future fuels



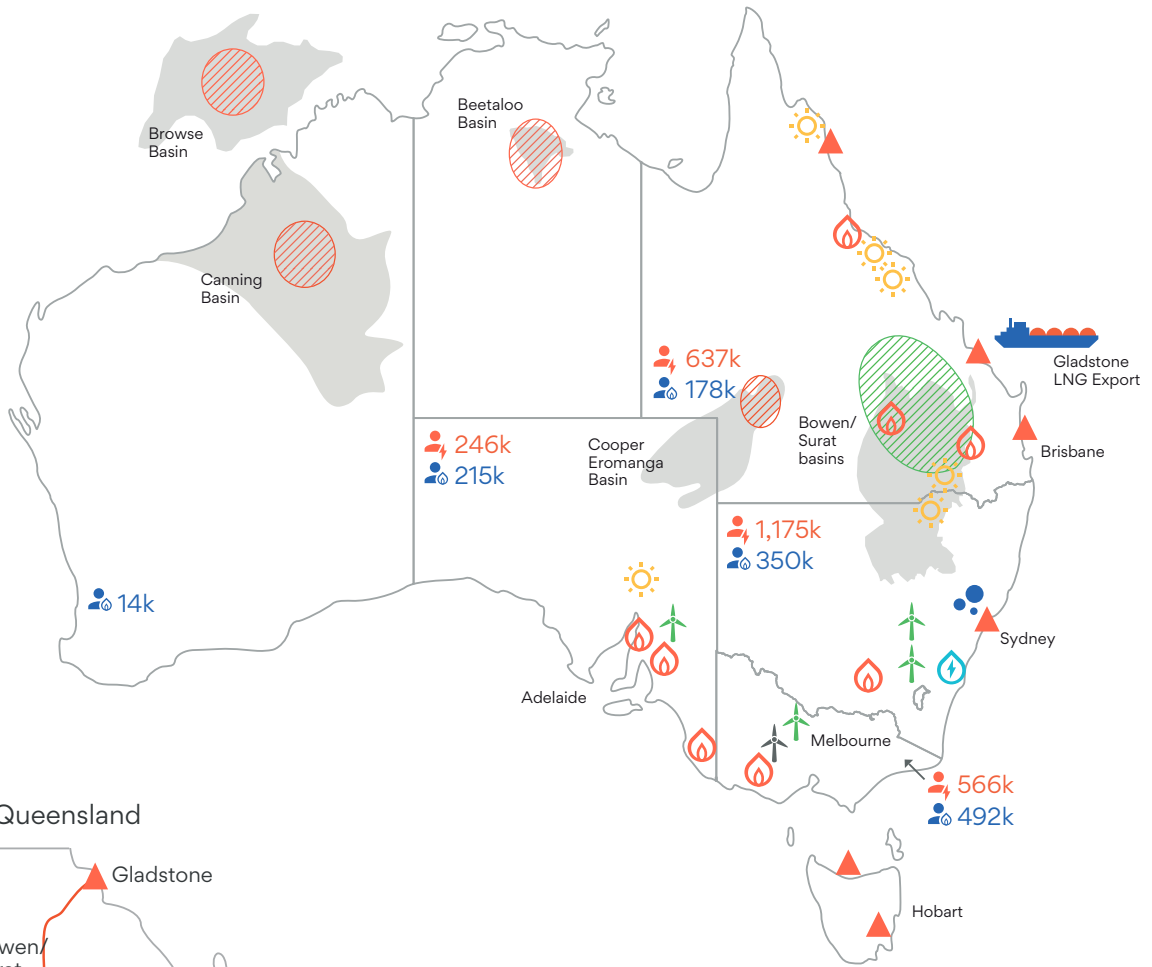
Exploration and development

Positions in three large prospective onshore basins: the Beetaloo, Canning and Cooper-Eromanga

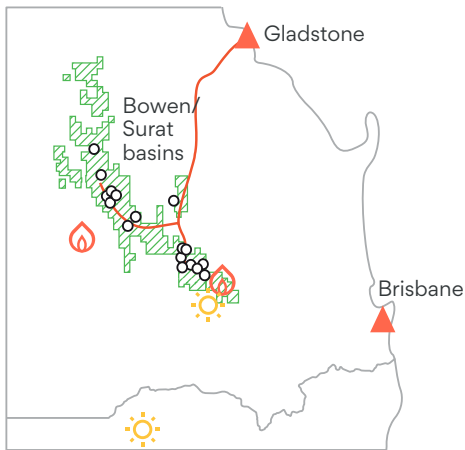
Bringing
good energy
to everything
we say
and do.



Where We Operate



South East Queensland



Exploration & production acreage

- Origin/JV upstream acreage
- APLNG upstream acreage
- Production facility
- APLNG pipeline

Generation

- Gas
- Pumped hydro
- Solar (contracted)
- Wind (contracted)
- Coal
- Wind (contracted, not complete)

- LPG seaboard terminal

- Electricity customer accounts
- Natural gas customer accounts

Pacific countries LPG



Board of Directors



Scott Perkins

**Independent
Non-executive Chairman**

Tenure 5 years, 11 months

Scott Perkins joined the Board in September 2015 and was appointed Chairman in October 2020. He is Chairman of the Nomination Committee and a member of the Audit, Remuneration and People, Health, Safety and Environment and Risk committees.

Scott has extensive Australian and international experience as a leading corporate adviser. He was formerly Head of Corporate Finance for Deutsche Bank Australia and New Zealand and a member of the Executive Committee with overall responsibility for the Bank's activities in this region. Prior to that he was Chief Executive Officer of Deutsche Bank New Zealand and Deputy CEO of Bankers Trust New Zealand.

Scott is a Non-executive Director of Woolworths Group Limited (since September 2014) and Brambles Limited (since May 2015). He is Chairman of Sweet Louise (since 2005) and the New Zealand Initiative (since 2012). Scott was previously a Director of the Museum of Contemporary Art in Sydney (2011 - 2020) and a Non-executive Director of Meridian Energy (1999 - 2002).

Scott has a longstanding commitment to breast cancer causes, the visual arts and public policy development.

Scott holds a Bachelor of Commerce and a Bachelor of Laws (Hons) from Auckland University.



John Akehurst

**Independent
Non-executive Director**

Tenure 12 years, 4 months

John Akehurst joined the Board in April 2009. He is Chairman of the Health, Safety and Environment Committee and a member of the Nomination and Risk committees.

John's executive career was in the upstream oil and gas and LNG industries, initially with Royal Dutch Shell and then as Chief Executive Officer of Woodside Petroleum Limited.

John is a Director of Human Nature Adventure Therapy Ltd (since February 2018).

John was previously Chairman of the National Centre for Asbestos Related Diseases (2009 - April 2020), the Fortitude Foundation (2007 - April 2020), Transform Exploration Pty Ltd (February 2012 - December 2017), Alinta Limited (January 2007 - September 2007) and Coogee Resources Ltd (2008 - 2009) and a former Board member of the Reserve Bank of Australia (September 2007 - September 2017), Director of CSL Limited (April 2004 - October 2016), Oil Search Limited (1998-2003), Security Ltd (2008 - 2012), Murdoch Film Studios Pty Ltd and the University of Western Australia Business School.

John holds a Masters in Engineering Science from Oxford University and is a Fellow of the Institution of Mechanical Engineers.



Ilana Atlas

**Independent
Non-executive Director**

Tenure 6 months

Ilana Atlas joined the Board in February 2021.

Ilana is a Non-executive Director of ANZ Banking Group Limited (since 2014), Scentre Group Limited (since May 2021), Scentre Management Limited (since May 2021), RE1 Limited (since May 2021), and RE2 Limited (since May 2021). She is the Chair of Jawun and on the Board of the Paul Ramsay Foundation and Paul Ramsay Holdings Pty Ltd.

Ilana was previously the Chair of Coca-Cola Amatil Limited (2017 - 2021). She was a Director of Coca-Cola Amatil Limited (2011 - 2021), Treasury Corporation of New South Wales (2013 - 2017), Westfield Group (2011 - 2014) and Suncorp (2011 - 2014). Her last executive role was Group Executive, People, at Westpac, where she was responsible for human resources, corporate affairs and sustainability. Prior to that role, she was Group Secretary and General Counsel. Before her 10-year career at Westpac, Ilana was a partner in law firm Mallesons Stephen Jaques (now known as King & Wood Mallesons). Ilana has held a number of management roles in the firm including Executive Partner, People and Information, and Managing Partner.

Ilana holds a Bachelor of Jurisprudence (Honours) and Bachelor of Laws (Honours) from the University of Western Australia and Masters of Laws from the University of Sydney.



Maxine Brenner

**Independent
Non-executive Director**

Tenure 7 years, 9 months

Maxine Brenner joined the Board in November 2013. She is Chairman of the Risk Committee and a member of the Audit, Remuneration and People and Nomination committees.

Maxine was previously a Managing Director of Investment Banking at Investec Bank (Australia) Ltd. Prior to Investec, Maxine was a Lecturer in Law at the University of NSW and a lawyer at Freehills, specialising in corporate law.

Maxine is a Non-executive Director and Chairman of the Remuneration Committee of Orica Ltd (since April 2013) Non-executive Director of Qantas Airways Ltd (since August 2013) and Woolworths Group Limited (since 1 December 2020). She is also a member of the University of NSW Council.

Maxine's former directorships include Growthpoint Properties Australia, Treasury Corporation of NSW, Bulmer Australia Ltd, Neverfail Springwater Ltd and Federal Airports Corporation, where she was Deputy Chair. In addition, Maxine has served as a Council Member of the State Library of NSW and as a member of the Takeovers Panel.

Maxine holds a Bachelor of Arts and a Bachelor of Laws.



Frank Calabria

**Managing Director &
Chief Executive Officer**

Tenure 4 years, 10 months

Frank Calabria was appointed Managing Director & Chief Executive Officer in October 2016. Frank is a member of the Health, Safety and Environment Committee and a Director of the Origin Energy Foundation.

Frank first joined Origin as Chief Financial Officer in November 2001 and was appointed Chief Executive Officer, Energy Markets in March 2009. In that latter role, Frank was responsible for the integrated business within Australia including retailing and trading of natural gas, electricity and LPG, power generation and solar and energy services.

Frank is a Director of the Australian Energy Council and the Australian Petroleum Production & Exploration Association. He is a former Chairman of the Australian Energy Council and former Director of the Australian Energy Market Operator.

Frank has a Bachelor of Economics from Macquarie University and a Master of Business Administration (Executive) from the Australian Graduate School of Management. Frank is a Fellow of the Chartered Accountants Australia and New Zealand and a Fellow of the Financial Services Institute of Australasia.



Greg Lalicker

**Independent
Non-executive Director**

Tenure 2 years, 5 months

Greg Lalicker joined the Board in March 2019.

Greg is the Chief Executive Officer of Hilcorp Energy Company, based in Houston, USA. Hilcorp is the largest privately held independent oil and gas exploration and production company in the USA.

Greg joined Hilcorp's leadership team in 2006 as Executive Vice President where he was responsible for all exploration and production activities. He was appointed President in 2011 and Chief Executive Officer in 2018. Prior to working for Hilcorp, Greg was with BHP Petroleum based in Midland, Houston, London and Melbourne as well as McKinsey & Company where he worked in its Houston, Abu Dhabi and London offices.

Greg graduated as a petroleum engineer from the University of Tulsa. He has a Master of Business Administration and a law degree.



Mick McCormack

**Independent
Non-executive Director**

Tenure 8 months

Mick McCormack joined the Board in December 2020. He is a member of the Health, Safety and Environment and the Remuneration and People committees.

Mr McCormack is Chairman of Central Petroleum Limited and Non-executive Director of Austal Limited. He is also Chairman of the Australian Brandenburg Orchestra Foundation and a director of the Clontarf Foundation.

Mr McCormack was previously Managing Director and CEO of APA Group (2004-2019) and has more than 37 years of experience in the energy and infrastructure sectors, including gas-fired and renewable energy power generation, gas processing, LNG and underground storage. Prior to joining APA in 2000, Mr McCormack held various senior management roles with AGL Energy.

Mr McCormack holds a Masters of Business Administration from the University of Queensland, a Graduate Diploma of Engineering from Monash University, and a Bachelor of Applied Science from the University of Queensland.



Bruce Morgan

**Independent
Non-executive Director**

Tenure 8 years, 9 months

Bruce Morgan joined the Board in November 2012. He is Chairman of the Audit Committee and a member of the Health, Safety and Environment, Nomination and Risk committees.

Bruce is Chairman of Transport Asset Holding Entity of New South Wales (since July 2020), Sydney Water Corporation (since October 2013), a Director of Redkite, the University of NSW Foundation and Deputy Chair of the European Australian Business Council.

Bruce was a Director of Caltex Australia Ltd (2013-2020) and served as Chairman of the Board of PricewaterhouseCoopers (PwC) Australia (2005-2012). In 2009, he was elected as a member of the PwC International Board, serving a four-year term. He was previously Managing Partner of PwC's Sydney and Brisbane offices. An audit partner of the firm for over 25 years, he was focused on the financial services and energy and mining sectors leading some of the firm's most significant clients in Australia and internationally.

Bruce has a Bachelor of Commerce (Accounting and Finance) from the University of NSW and is an Adjunct Professor of the University. Bruce is a Fellow of the Chartered Accountants Australia and New Zealand and of the Australian Institute of Company Directors.



Steven Sargent

**Independent
Non-executive Director**

Tenure 6 years, 3 months

Steven Sargent joined the Board in May 2015. He is Chairman of the Origin Energy Foundation, Chairman of the Remuneration and People Committee and a member of the Health, Safety and Environment, Risk and Nomination committees.

Steven's executive career included 22 years at General Electric, where he led businesses across the USA, Europe and Asia Pacific. Steven was President and CEO of GE Mining, GE's global mining technology and services business. Prior to this he was President and CEO of GE Australia, NZ & PNG where he had local responsibility for GE's Energy, Oil and Gas, Aviation, Healthcare and Financial Services businesses.

Steven is Chairman of OFX Group Ltd (since November 2016) and Deputy Chairman of Nanosonics Ltd (since July 2016). Over recent years Steven has been a Non-executive Director of Veda Group Ltd (2015 - 2016).

Steven holds a Bachelor of Business from Charles Sturt University and is a Fellow with the Australian Institute of Company Directors and a Fellow with the Australian Academy of Technological Sciences and Engineering.



Joan Withers

**Independent
Non-executive Director**

Tenure 10 months

Joan Withers joined the Board in October 2020. She is a member of the Audit and Risk committees.

Joan has spent over 25 years working in the media industry holding CEO positions at both Fairfax NZ Ltd and The Radio Network and she also has significant corporate governance experience.

She is currently Chair of The Warehouse Group Ltd (since 2016), director of ANZ Bank NZ Ltd (since July 2013) and Sky Network TV Ltd (since 2019). She has previously held Chair positions at Auckland International Airport (1997 - 2013), Mercury NZ Ltd (2009 - 2019) and TVNZ (2015 - 2017). She has also held directorships on the boards of some of New Zealand's largest companies including Meridian Energy Ltd and Tourism Holdings Ltd. Prior to her appointment as CEO of Fairfax NZ Ltd, Joan was a director on the Australian board of John Fairfax Holdings Ltd.

Joan holds a Masters Degree in Business Administration from The University of Auckland.

Executive Leadership Team



Jon Briskin

**Executive General Manager,
Retail**

Jon Briskin joined Origin in 2010 and was appointed Executive General Manager, Retail in December 2016. Jon leads the teams responsible for energy sales, marketing, product development and service experience for Origin's residential and SME customers. Jon has held various roles at Origin, leading customer operations, service transformation and customer experience and prior to Origin worked as a management consultant.



Greg Jarvis

**Executive General Manager,
Energy Supply and Operations**

Greg Jarvis joined Origin in 2002 as Electricity Trading Manager and was appointed General Manager, Wholesale, Trading and Business Sales in February 2011. Greg is responsible for Wholesale, Trading, Business Energy, Solar, Generation, HSE and LPG. Greg has over 20 years' experience in the financial and energy markets.



Kate Jordan

**General Counsel and
Executive General Manager,
Company Secretariat, Risk
and Governance**

Kate Jordan joined Origin in March 2020 as General Counsel and Executive General Manager, Company Secretariat, Risk and Governance. Kate leads the legal, company secretariat, risk and internal audit teams. Prior to joining Origin, Kate was Deputy Chief Executive Partner at Clayton Utz, with responsibility for people and development. Kate has over 20 years' legal experience across a range of corporate transactions.



Tony Lucas

**Executive General Manager,
Future Energy and
Business Development**

Tony Lucas joined Origin as Risk Analysis Manager in 2002 and was appointed as General Manager, Energy Risk Management in February 2011. Tony leads the team responsible for Future Energy, Strategy and Technology, ensuring that Origin is well positioned to lead the transition into a low-carbon, technology-enabled world. Tony began his career in the banking industry before moving into the energy sector.



Sharon Ridgway

**Executive General Manager,
People and Culture**

Sharon Ridgway joined Origin in 2009 and has been responsible for leading the People and Culture function since December 2016. Sharon's team provide strategic support to the business in key areas such as engagement, diversity, talent management and culture change. Prior to Origin, Sharon developed a wide range of experience across operational and human resources roles whilst working in Dixons, a large European electrical retailer.



Samantha Stevens

**Executive General Manager,
Corporate Affairs**

Samantha Stevens joined Origin in March 2018 as Executive General Manager, Corporate Affairs. Samantha is responsible for Origin's external affairs, government and public policy and employee communication functions and the Origin Energy Foundation. Samantha has more than 25 years' experience in corporate affairs, mainly in the resources, industrials and financial services sectors. Prior to joining Origin, Samantha headed up Corporate Affairs for the global mining services company, Orica.



Lawrie Tremaine

Chief Financial Officer

Lawrie Tremaine joined Origin in June 2017 and holds the position of Chief Financial Officer. Lawrie leads the teams responsible for all finance activities, corporate strategy and development, procurement, investor relations and corporate HSE. Lawrie has over 30 years' experience in financial and commercial leadership, predominantly in the resource, oil and gas and minerals processing industries having previously worked at Woodside Petroleum and Alcoa.



ERARING
POWER STATION

Operating and Financial Review

For the full year ended 30 June 2021

This report forms part of the Directors' Report.



1 Highlights

Our purpose underpins everything we do: Getting energy right for our customers, communities and planet

Getting energy right for our customers

Our customers are at the heart of everything we do. We are committed to providing 'good energy' that is reliable, affordable and sustainable. In FY2021, we:

- continued supporting residential and small business customers in financial distress due to impacts of the COVID-19 pandemic, including protection from disconnection and default listing;
- provided relief to most of our electricity customers in New South Wales, Queensland, South Australia and Victoria, with lower electricity prices;
- supported customers experiencing financial hardship, with more than 35,300 payment plans successfully completed through our Power On hardship program;
- improved our Strategic Net Promoter Score (NPS) by four points to +6 as at 30 June 2021;
- successfully migrated more than 250,000 customer accounts to the Kraken platform;
- delivered over \$1 million in rewards to the more than 56,000 Origin Spike customers;
- increased the number of green energy customers from 117,000 to 260,000 with the launch of Origin's new Origin Go product, which enables customers to benefit from 25 per cent GreenPower and 100 per cent Green Gas at no additional cost; and
- APLNG continues to supply ~30 per cent of domestic east coast market.

Getting energy right for our communities

We respect the rights and interests of the communities in which we operate, and consult with them to understand and manage our impact.

We spent \$270 million directly and indirectly with regional suppliers, or 18 per cent of our total spend, up from 14 per cent in FY2020.

Our Stretch Reconciliation Action Plan (Stretch RAP) includes a commitment to increase the participation of Aboriginal and Torres Strait Islander businesses in Origin's supply chain. In FY2021, our spend with Indigenous suppliers was \$10 million, exceeding our Stretch RAP target of \$6.5 million and FY2020 performance of \$5.3 million.

We continue to work closely with the Northern Land Council to engage with and maintain the support of our Native Title holders in the Beetaloo Basin. During the year, some of our Native Title holders visited the Kyalla well site near Daly Waters during fracking operations. We also undertook sacred site clearance and avoidance surveys for future work, and participated in meetings on country about our upcoming work program.

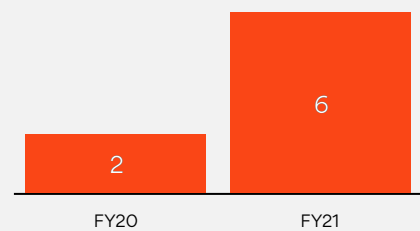
Through grants, 8,400 hours of employee volunteering, and our workplace giving program, the Origin Energy Foundation contributed over \$3 million to the community in FY2021. This included a \$100,000 grant to the Grattan Institute to research the impacts of home-schooling, due to COVID-19, on disadvantaged students.

For the second year running, Origin Energy was named *Australia's Best Workplace to Give Back*, topping GoodCompany's list of the Top 40 Best Workplaces to Give Back 2020. Origin and its employees donated more than \$690,000 to over 250 Australia not-for-profit organisations in FY2021.



Customers

Strategic NPS



35,300

Customer payment plans successfully completed through our Power On hardship program



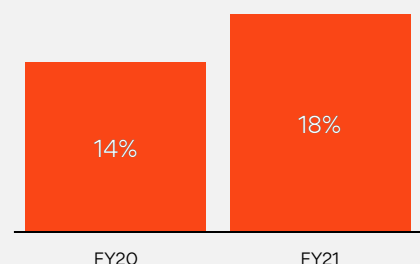
Communities

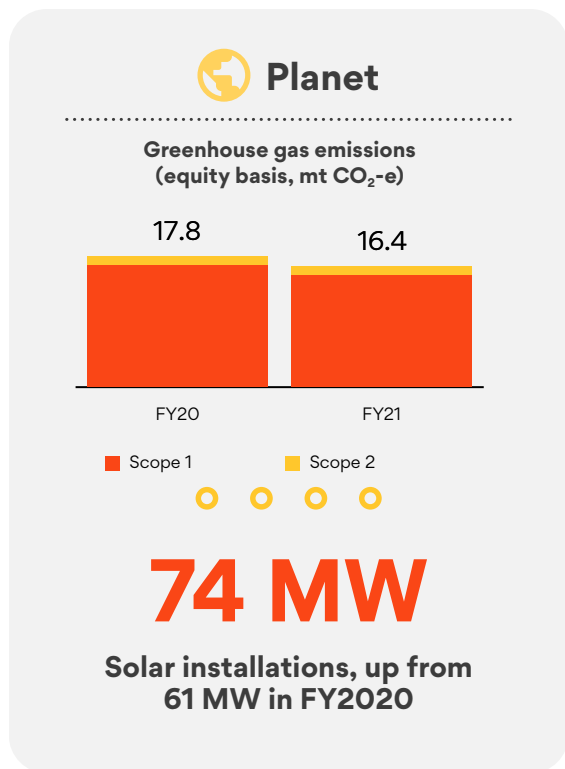
>\$3M

Contributed to the community by the Origin Energy Foundation



Regional procurement spend as a % of total spend





Getting energy right for the planet

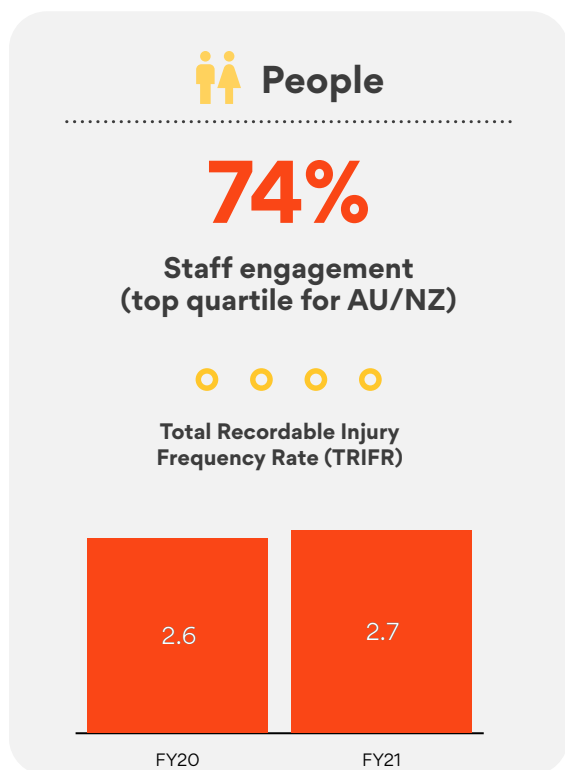
We put in place Australia's first approved science-based emissions reduction targets in 2017, committing to lowering Scope 1 and 2 emissions by 50 per cent and Scope 3 emissions by 25 per cent by 2032. We aim to achieve net zero Scope 1 and 2 emissions by 2050. Work is progressing on updated emissions reduction targets in line with a 1.5°C pathway.

We have announced our intention to put our climate reporting to a non-binding, advisory vote of shareholders at our 2022 Annual General Meeting.

During FY2021, we:

- reduced our Scope 1 and 2 equity emissions by 1.4 million tonnes, or 8 per cent;
- installed 74 MW of solar on Australian homes and businesses, up from 61 MW in FY2020;
- launched Origin 360 EV Fleet, the first full-service electric vehicle (EV) fleet management solution of its kind in Australia;
- progressed our renewable hydrogen and renewable ammonia opportunities, including a feasibility study in Bell Bay, Tasmania;
- were certified carbon neutral by Climate Active for our Green Gas and Green LPG products; and
- entered into a new agreement to supply 900,000 tonnes of ash from Eraring Power Station to mining company Glencore over the next two and a half years, almost doubling Eraring's ash re-use program.

Our disclosures under the Task Force on Climate-related Financial Disclosure guidelines will be set out in our Climate Change Management Approach, to be released in September 2021.



Our people

Our people are one of our greatest strengths, and having a diverse and inclusive workplace is key to the success of our business. We have made significant changes to the way we work in response to the COVID-19 pandemic, and Origin's culture has strengthened during this time. During FY2021, we:

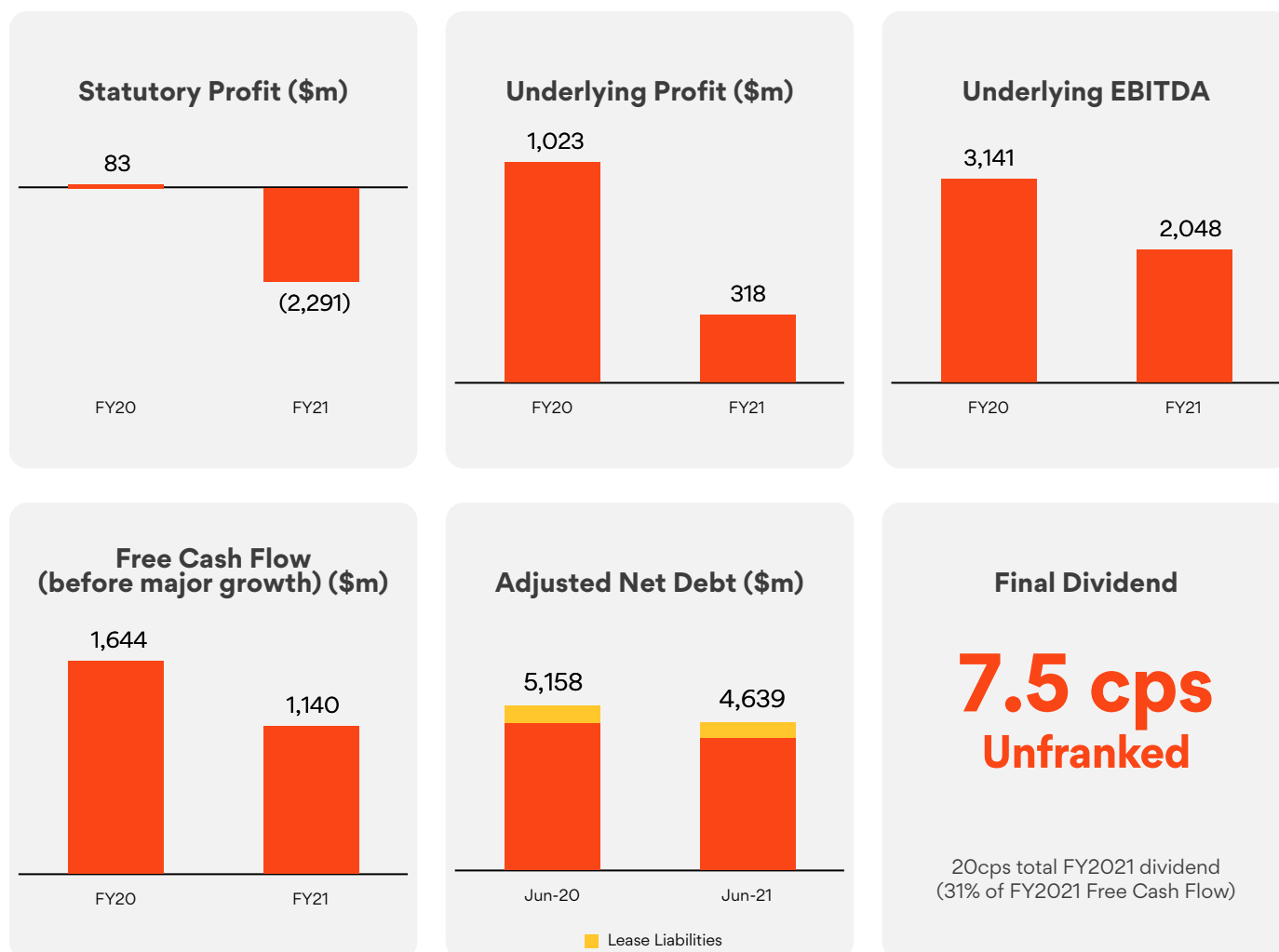
- maintained a steady engagement score of 74 per cent, keeping Origin in the top quartile across Australia and New Zealand;
- kept Actual Serious Incidents steady at four, with 52 Learning Incidents, ahead of our target of 30;
- maintained a steady TRIFR score of 2.7, compared to 2.6 in FY2020;
- achieved our target of 33 per cent of women in senior roles in FY2021, an increase from 32 per cent in the previous reporting period;
- were certified a Great Place to Work by the Great Place to Work Institute, the global authority on workplace culture; and
- were named in LinkedIn's annual list of Australia's 'Top Companies' – ranked at number 19.

In July 2021, Origin became a signatory to *40:40 Vision*, an investor-led initiative targeting gender balance in executive leadership by 2030. As part of the 40:40 Vision initiative, we have committed to achieve gender balance (40:40:20) in executive leadership by 2030.

We have focused on supporting the mental health and well being of our people in FY2021 and continued to develop a range of resources and programs.

We also launched a range of diversity learning programs for our people in FY2021, including the Embrace Pride@Origin Learning Platform and our cultural awareness learning framework to build awareness of Aboriginal and Torres Strait Islander cultures, histories and achievements.

Financial performance



FY2021 was characterised by the impacts of COVID-19 on energy demand and prices across our key commodities: electricity, natural gas and oil. The impact in domestic energy markets was exacerbated by mild summer weather, continued growth in renewables and regulatory uncertainty.

Underlying Profit was lower at \$318 million with Energy Markets impacted by lower wholesale prices, one-off network costs, roll-off of legacy contracts, higher gas supply costs, and increased amortisation expense. Earnings from APLNG were impacted by a lower realised oil price, partially offset by lower operating costs, depreciation and amortisation, interest expense and Origin hedging gains. Statutory Loss of \$2,291 million reflected non-cash impairment charges, recognition of a deferred tax liability in respect of our investment in APLNG, unrealised losses on fair value and FX movements, and costs relating to a decision to defer the surrender of large-scale generation certificates (LGCs).

During the period our operations continued to perform reliably and efficiently. Our generation fleet met all demand requirements with minimal unforced outages, managing through recent volatility driven by unplanned outages within the NEM and colder weather through the June 2021 quarter. APLNG responded to recovering market demand with record daily production achieved on two occasions in FY2021. APLNG also delivered record low unit costs driven by strong field performance and operational efficiencies. APLNG's realised oil price reduced to US\$43/bbl as the price lag in its long-term LNG contracts meant that the April and May 2020 low crude oil prices flowed through into FY2021.

Free Cash Flow remained robust at \$1,140 million, driven by a high cash conversion in Energy Markets due to lower working capital requirements, \$709 million cash distributions from APLNG, lower capital expenditure, and lower interest and tax payments. This enabled debt reduction of \$519 million while allowing for investment in growth and dividends to shareholders. Adjusted Net Debt/Adjusted Underlying EBITDA was 2.9x, at the upper end of our 2.0-3.0x target range, as foreshadowed.

Our strategic partnership with Octopus Energy to radically transform our retail operations is progressing, with 250,000 customer accounts migrated to the new Kraken platform by June 2021. Through our 20 per cent shareholding, Origin also benefits from Octopus's continuing growth trajectory, with UK customer accounts growing at more than 100,000 per month on average since our investment and through Octopus's entry into the Japanese market in partnership with Tokyo Gas.

We progressed upstream exploration and appraisal in the Beetaloo and Cooper-Eromanga basins and in late 2020 we announced a farm in to seven permits in the prospective Canning Basin.

Energy Markets performance

Underlying EBITDA

\$991M

Down \$468m or 32% vs FY2020

Operating cash flow

\$1,018M

Down \$289m vs FY2020 with cash to EBITDA conversion of 103%

4.8%

Underlying ROCE
Down 5.2% vs FY2020

Cost to serve

\$489M

Down \$81M or 14% vs FY2020
Achieved \$110m cost out since FY2018

Customer accounts

4,266k

Up 30k vs June 2020

Retail X

250k

Successful migrations to the new Kraken platform

While wholesale energy prices have rallied in recent months, the impacts of lower demand due to COVID-19, rooftop solar uptake and energy efficiency, as well as increased large-scale renewable penetration all contributed to lower prices for the majority of FY2021. The reduction in Energy Markets' Underlying EBITDA was primarily due to this decline in wholesale prices, as well as impacts of increased network and metering costs not recovered in regulated tariffs, higher gas supply costs and the roll-off of certain gas supply and transport capacity sales contracts. This was partially offset by reduced retail costs with our savings target achieved, and increased earnings from Solar and Energy Services, and Octopus Energy. Operating cash flow decreased in the period, reflecting the lower EBITDA; however, EBITDA to cash conversion was strong at 103 per cent.

Our peaking generation portfolio is well positioned for the energy transition and we continue to explore opportunities that would further improve our flexibility and capacity, including grid-scale storage and pumped hydro. We are also changing the way we run Eraring to better position it for increasing renewables. While current market and policy conditions make investment challenging, our longer-term view remains that as coal generation exits, new firm and flexible generation capacity will be required to complement increasing renewable generation. We will look to partner with governments and other market participants as opportunities arise.

Our gas portfolio remains a strength with scale and flexibility to move gas to where it is needed most. In May, we announced 91 PJ in gas supply and transport agreements to materially increase supply to customers in southern markets out to 2025.

In a competitive retail market, we increased customer accounts by 30,000 and maintained a churn rate of 4.8 per cent below the market, for electricity and gas customers. We continue to see growth in Community Energy Services (CES), Solar, Storage and Broadband. Our broadband product has been boosted by a new partnership with Aussie Broadband.

We delivered on our \$100 million savings target, having reduced cost to serve by \$110 million since FY2018, of which \$81 million was achieved in FY2021.¹ Our retail transformation program is focused on leading customer experience at the lowest cost, growing new revenue streams and offering simplified, rewarding and flexible products. We achieved our highest ever strategic NPS of +6 as at 30 June 2021 and we continue to provide support to customers impacted by COVID-19.

Our partnership with Octopus Energy will accelerate our strategy to deliver superior customer experience at low cost, while opening up growth opportunities. We have established a new business (Retail X) to undertake a bottom-up build of Octopus's operating model, technology platform (Kraken) and distinctive culture. We migrated 250,000 customer accounts to Retail X in FY2021 and are targeting further capital and operating cost savings of \$100 to \$150 million by FY2024, from FY2018 baseline.

¹ Adjusted for changes in lease accounting.

Integrated Gas performance

Underlying EBITDA

\$1,135M

Down \$606m or 35% vs FY2020
Underlying EBIT down \$228m

Cash distributions from APLNG

\$709M

Down \$566m or 44% vs FY2020

4.8%

Underlying ROCE
Down from 8.2%
in FY2020

APLNG production (37.5%)

263PJ

Down 1% vs FY2020

Average realised LNG price

**US\$6.2/
MMBTU**

Down 32% vs FY2020
Down 39% in A\$ terms at \$7.8/GJ

Record low capex and opex¹/GJ

\$2.8/GJ

19% improvement vs FY2020

Strong field performance and operating efficiencies enabled APLNG to maintain stable production despite a significant reduction in planned development activity and costs. APLNG demonstrated its operational flexibility by curtailing production early in the year in response to lower demand, followed by a ramp-up to record daily production as market demand increased later in the year. With continued improvement in utilisation of processing capacity driven by Eurombah Reedy Creek Interconnect (ERIC) pipeline and Talinga Orana Gas Gathering Station (TOGGS), and a high level of facility reliability, the remainder of the year saw production levels similar to FY2020.

APLNG achieved record low capital and operating expenditure, decreasing by more than \$940 million or 32 per cent compared with FY2020. This was driven by strong field performance enabling reduced development activity with fewer drilling rigs, along with lower infrastructure spend, as well as lower gas purchases, royalties, tariffs and exploration spend. Total capital and operating expenditure in FY2021 was \$2.8/GJ.¹

APLNG matched its previous operated daily production record of 1,614 TJ/day on two occasions, shipped its 600th LNG cargo, and delivered a record 130 cargoes in FY2021.

Origin's share of APLNG 2P (proved plus probable) reserves² increased by 247 PJ or 6 per cent before production, representing reserves replacement of 94 per cent during FY2021, driven by higher estimated recoveries from producing fields and maturation of resources to reserves.

Despite APLNG's strong operational performance, Integrated Gas's Underlying EBITDA reduced primarily due a decline in the realised oil price from US\$68/bbl (A\$101/bbl) in FY2020 to US\$43/bbl (A\$58/bbl) in FY2021, partially offset by Origin oil hedging gains.

Other highlights across Integrated Gas during the period included:

- fracture stimulation and initial flowback and production testing undertaken at the Kyalla 117 well in the Beetaloo Basin with encouraging results that met the objective to flow liquid-rich gas. Operations were temporarily paused in July to investigate a potential downhole flow restriction, with an extended production test planned to commence in FY2022. Velkerri 76 well was spudded and a further production test at the Amungee NW 1H well, drilled in 2016, commenced in August;
- drilling the Obelix-2 vertical exploration well to test the maturity of the Toolebuc Formation in the Cooper-Eromanga Basin, with positive initial analysis of log and core data;
- announcing a farm-in with Buru Energy for a 40-50 per cent equity share in seven permits in the prospective Canning Basin, where Origin will fund an estimated \$35 million work program over two years; and
- progressing a number of hydrogen and renewable fuels projects, including a feasibility study into an export-scale renewable ammonia plant in Tasmania's Bell Bay, an export-scale project in Townsville with the signing of a Memorandum of Understanding (MOU) with the Port of Townsville, and the Western Sydney Green Gas Project. In addition, a joint feasibility study on opportunities to develop the supply chain for export-scale renewable ammonia with the signing of MOUs with Mitsui O.S.K. Lines Ltd. (MOL) and POSCO.

¹ Opex excludes purchases and reflects royalties at the breakeven oil price.

² APLNG acquired various CSG interests from Tri-Star in 2002 that are subject to reversionary rights and an ongoing royalty interest in favour of Tri-Star. Refer to Section 7 for disclosure relating to Tri-Star litigation associated with these CSG interests.

2 Strategy and prospects

Our business drivers

As a leading integrated energy company, Origin's earnings drivers are spread across the energy value chain.

Our electricity margin is predominantly driven by outperforming the market cost of energy through our supply portfolio (power stations and supply contracts). Although Origin generates less electricity than it sells, a significant portion of its wholesale costs are relatively fixed, and so margins are leveraged to movements in wholesale market prices as they flow through into retail tariffs.

In natural gas, Origin's wholesale margin is driven by a strong gas supply portfolio, with pipeline and storage flexibility enabling us to direct gas to where it is most needed. A large portion of supply is under long-term contracts that are either fixed-price or linked to oil and Japan Korea Marker (JKM) prices, some of which reprice to market over time.

Profitability in energy retailing is driven by attracting and retaining customers by providing a superior customer experience and low-cost service.

Origin is the upstream operator and has a 37.5 per cent interest in APLNG, which is Australia's largest CSG to LNG project. It is a significant supplier to both domestic gas and international LNG markets, with the majority of volume contracted until approximately 2035. Profitability is underpinned by maintaining a low annual capital and operating cost base relative to revenues. In FY2021, approximately 76 per cent of APLNG gas volume was sold as LNG (of which 90 per cent was under long-term oil-linked contracts). The remaining 24 per cent was sold domestically via a mix of long-term and short-term contracts.

Origin is focused on supporting our customers through the energy transition with a growing portfolio of clean energy solutions and technologies, including solar, batteries, e-mobility, hydrogen, carbon offsets and demand management, all of which are expected to grow in scale as the energy system decarbonises.

Market outlook

The energy market is transforming, and the rate of change is accelerating. Renewable energy continues to grow both in our homes and on the grid, placing downward pressure on wholesale electricity prices and changing the shape of energy supply and demand throughout the day and over the year. Governments are increasingly intervening in markets through direct investments and pricing outcomes which places further pressure on prices and private investments in the sector. Our customers' expectations are also changing dramatically, demanding integrated energy and emissions offerings and becoming market participants themselves with a wider choice of technologies to use, store and manage energy.

FY2021 saw a disconnect between domestic east coast gas prices and the regional JKM index as domestic markets were temporarily oversupplied and regional markets tightened with an extreme Northern hemisphere winter and supply constraints. This, along with the impact of COVID-19, led to lower domestic sales volumes and prices, and higher supply costs linked to JKM. The impact is expected to flow into FY2022; however we expect east coast gas prices to reconnect with the regional JKM index over the medium term.

International oil and LNG markets rebounded from the low COVID-19 levels experienced last year, reflecting tightened supply and demand dynamics. The LNG market is also benefiting from short-term market tightness driven by the severe Northern hemisphere winter and supply bottlenecks however this is expected to normalise over the next 12 months.

In the longer term, we continue to expect global trends towards decarbonisation, decentralisation and digitisation to shape energy markets.

We expect:

- continued increases in large and small-scale renewable energy will maintain downward pressure on average electricity prices, but will also increase volatility and the need for more reliable, dispatchable ('firming') capacity such as flexible gas-fired generation and battery storage, which Origin is well placed to supply;
- increased electrification over time, particularly in transportation in the near term;
- current supply constraints in global LNG markets to ease over the next 12 months as liquefaction utilisation rates rise and new supply commences production; and
- retail markets to remain competitive, but with improved transparency due to market reference bill requirements.

It is in this context that we continue to evolve our strategy to capture value in a future shaped by these global trends.

Our strategy

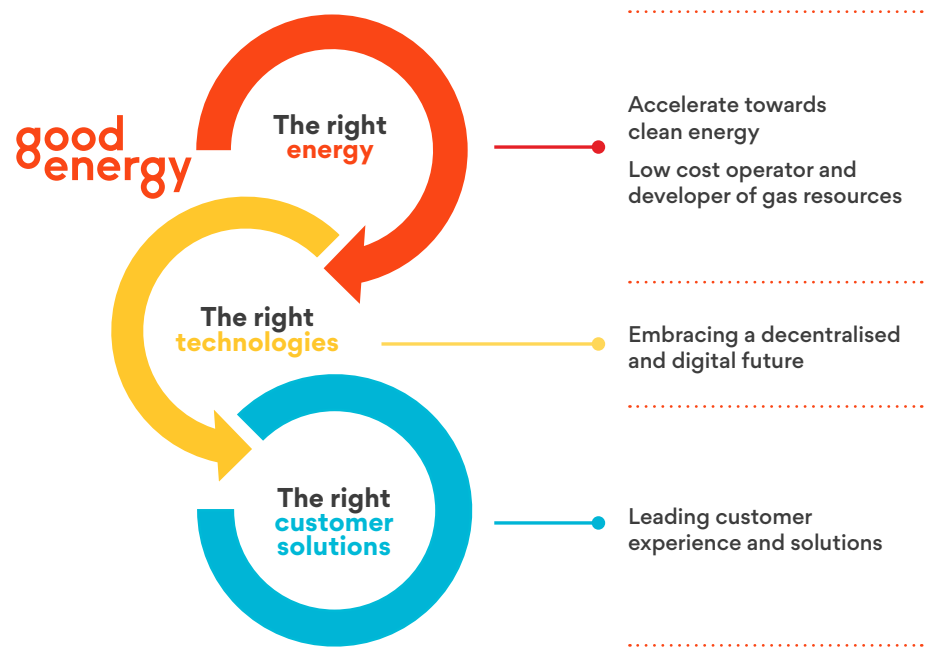
“Connecting customers to the energy and technologies of the future”

Our strategy is centred around our core beliefs:

Decarbonisation: Replacement of coal by renewables, partnered with firming capacity from gas, pumped hydro and storage, will support emission reductions. Electrification and demand for emerging technologies, including hydrogen and carbon management, are expected to grow to support decarbonisation.

Decentralisation: Technological advancement and consumer desire for greater control will result in an increase in distributed generation and storage.

Digitisation: More connected homes and businesses will change all aspects of operations and customer experience, with focus on orchestration and integrated risk management expected to grow.



Underpinned by a commitment to capital discipline



Accelerate towards clean energy

The right energy

We believe our generation and fuel supply portfolios provide flexibility to adapt and prosper in a changing energy market.

We own Australia’s largest peaking gas generation fleet, which is well placed to provide firming capacity to support renewables and supply critical peak demand periods during extreme weather events or baseload supply shortages.

Coal currently plays a critical role for baseload supply in Australia, but with an ageing fleet and growing renewables driving down average prices and increasing intra-day volatility, the role of coal is diminishing. As coal is retired and use of renewables increases, the market will require investment in reliability. We are progressing a range of brownfield generation opportunities, including batteries and pumped hydro, which would further improve our flexibility and capacity to support the increase in renewables. Subject to market signals and regulatory certainty, we could quickly implement these at the appropriate time.



Low cost operator and developer of gas resources

Our Integrated Gas business is expected to benefit from stronger oil and LNG prices in the near term. Strong field performance and operatorship enabled APLNG to reduce development activity and costs while continuing to meet the needs of customers. APLNG remains focused on key value drivers such as workover and well unit rate savings, and production optimisation.

Beyond APLNG, our strategy is to scale our low-cost upstream operating model to new development opportunities. In the Beetaloo Basin, we have a 77.5 per cent interest and operatorship of three exploration permits covering 18,500km², with appraisal of two independent liquids-rich gas plays underway and plans to retest a dry gas play. We are considering farm-down options for Beetaloo in parallel to our appraisal activities.

We have a 75 per cent interest and operatorship of five permits located in the Cooper-Eromanga Basin in south west Queensland, and have recently acquired 100 per cent interest in one additional permit. In December 2020, we farmed-in to a 40-50 per cent equity share in seven permits in the Canning Basin. Additional prospective conventional and unconventional oil and gas plays are planned to be tested in these areas.



Embracing a decentralised and digital future

The right technologies

Energy markets around the world are rapidly transforming towards low-cost renewables and new digital technologies, and Australia is no exception. Continued penetration of decentralised generation and storage, combined with the rise of internet-enabled devices, is changing the way our customers interact with us and use energy at home and in their businesses. We are developing a leading digital platform and analytics capability to connect millions of distributed assets and data points to provide more personalised and value-add services to our customers, both in front of and behind the meter.

We have developed a proprietary Virtual Power Plant (VPP) platform to connect, and use artificial intelligence to orchestrate, distributed assets such as air-conditioning units, batteries, hot water systems and EV chargers. Through this platform, we have more than 159 MW from 79,000 connected services. We expect this to increase as we demonstrate the benefits to both customers and to the grid of optimising these distributed assets at critical times of market volatility.

We are also working with other businesses to source technical solutions and capabilities. We are co-founders of the Free Electrons global energy group, which brings together global utilities and leading start-ups looking to deploy new technology. The program has yielded a number of important partnerships, including with US based OhmConnect, the startup behind our behavioural demand response program, Spike, which launched in August 2020.

Origin is also pursuing opportunities in low-carbon technologies such as hydrogen, e-mobility, and carbon management.

In terms of hydrogen, Origin's integrated energy position provides it with a competitive strength in producing renewable hydrogen and ammonia using renewable energy and sustainable water. Hydrogen and ammonia demand is forecast to grow, allowing countries to reduce emissions and diversify fuel supply.

In terms of e-mobility, we provide charging solutions and infrastructure, and have launched a smart charging trial with ARENA aimed at optimising the charging of EVs to create value for customers and the energy markets as well as Origin 360 EV Fleet, Australia's first fully managed end-to-end EV fleet management proposition.



Leading customer experience and solutions

The right customer solutions

Origin is one of Australia's largest energy retailers by number of customer accounts, and is well placed to harness opportunities to deliver value to customers in a changing energy landscape.

Customers are at the heart of everything we do, and our immediate focus is to transform their experience to make it simple, seamless and increasingly digital.

In the near term, we are focused on delivering a superior customer experience, a market-leading cost position, and growing our product offerings including solar, CES and broadband.

Our strategic partnership with Octopus Energy, is expected to fast-track our strategy to deliver a superior customer experience at even lower cost, while opening up future growth opportunities.

3 FY2022 guidance

Guidance is provided on the basis that market conditions and the regulatory environment do not materially change, adversely impacting on operations. Considerable uncertainty exists relating to the potential ongoing impacts of COVID-19 and this guidance is subject to any further material impact on demand and customer affordability.

		FY21	FY22 guidance
Origin Energy - Underlying EBITDA	A\$m	2,048	1,850 - 2,150
Energy Markets Underlying EBITDA	A\$m	991	450 - 600
Integrated Gas & Corporate Underlying EBITDA	A\$m	1,057	1,400 - 1,550
Origin Energy - Capex and investments			
Capex (excluding investments)	A\$m	(339)	(370) - (410)
Investments	A\$m	(161)	(210) - (220) ¹
Integrated Gas - APLNG 100%			
Production	PJ	701	685 - 710
Capex and opex, excluding purchases ²	A\$b	2.0	2.1 - 2.3
Unit capex + opex, excluding purchases ²	A\$/GJ	2.8	3.0 - 3.4
Distribution breakeven ³	US\$/boe	22	20 - 25

1 FY2022 investments guidance includes ~\$135 million (£70 million) consideration, in relation to our investment in Octopus Energy, brought forward from FY2023 due to a 6 month lagged average Brent price of >US\$50/bbl from August 2021.

2 Opex excludes purchases and reflects royalties at the breakeven oil price.

3 FY2022 AUD/USD rate 0.75 (FY2021: 0.75)

Origin Energy - consolidated

FY2022 Origin Underlying EBITDA is estimated to be **\$1,850 - \$2,150 million**, based on an APLNG realised oil price of US\$68/bbl and AUD/USD rate of 0.75.

Approximately 50 per cent of APLNG's FY2022 oil exposure has been priced at US\$68/bbl based on long-term LNG contract lags, as at 28 July 2021. A change of US\$10/bbl for the remaining 50 per cent is estimated to impact Origin Underlying EBITDA by ~A\$120 million.

Interest expense is estimated to reduce by a further \$40-60 million in FY2022.

Capital expenditure is estimated to be **\$370 - \$410 million**, including **\$75 - \$85 million exploration and appraisal spend** primarily relating to Beetaloo and Canning basins. This excludes \$210 - \$220 million in investments relating primarily to the Octopus equity investment.

Energy Markets

We estimate Energy Markets Underlying EBITDA to be lower than FY2021 at **\$450 - \$600 million**, driven by:

- Electricity Gross Profit reduction of \$400 - \$480 million primarily driven by a ~\$20/MWh reduction in wholesale electricity prices flowing into customer tariffs, higher generation fuel costs and continued impacts of rooftop solar uptake and energy efficiencies. This is partially offset by lower wholesale electricity procurement costs with low-cost renewable supply coming online and capacity hedge contracts rolling off;
- Natural Gas Gross Profit reduction of up to \$50 million, reflecting higher procurement costs as a result of price reviews and increases in the JKM-linked supply costs, as well as lower volumes and prices on commercial and industrial sales, offset by repricing of retail customer tariffs; and
- Cost to serve expected to be relatively stable, having achieved \$110 million reduction from FY2018. Further savings associated with the adoption of Octopus' Kraken platform and operating model are expected over FY2023-24.

We expect a recovery in Energy Markets Underlying EBITDA in FY2023 of an estimated \$150 - \$250 million¹, to \$600 - \$850 million provided current forward commodity prices continue and flow into customer tariffs.

Integrated Gas

We estimate continued stable production in FY2022 of **685 - 710 PJ** (APLNG 100 per cent), reflecting strong field performance.

We estimate total APLNG capex and opex of **\$2.1 - \$2.3 billion**, higher than FY2021, reflecting planned downstream maintenance, higher non-operated development and infrastructure spend, increased E&A activity and workover, and higher power costs.

APLNG is targeting FY2022 **distribution breakeven of US\$20 - 25/boe**, including approximately US\$11/boe in project finance costs, with increased activity costs expected to be offset by higher non-oil linked revenue.

Based on an APLNG realised oil price of US\$68/bbl in FY2022, **cash flows to Origin are estimated to be greater than \$1 billion², net of oil hedging**. At 28 July 2021, Origin estimates that approximately half of APLNG's FY2022 JCC oil price exposure has been priced at US\$68/bbl, based on the long-term LNG contract lags. See Section 5.2.2 for details of Integrated Gas oil hedging and LNG trading.

¹ Based on current forward prices for key commodities such as electricity, coal and oil. Assuming JKM prices reduce by US\$2-US\$3/mmbtu from current forward prices, and assuming no material change in sales volumes and other costs.

² Assuming an average AUD/USD rate of 0.75 and assuming all APLNG debt serviceability tests are met. Origin hedges losses estimated to be \$134 million based on the same assumptions. As at 28 July 2021, ~31 mmbtoe (or 50%) of APLNG's FY2022 oil price exposure priced at ~US\$68/bbl before hedging.

4 Financial update

4.1 Reconciliation from Statutory to Underlying Profit

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Statutory Profit/(Loss) - total operations	(2,291)	83	(2,374)	(2,860)
Items Excluded from Underlying Profit (post-tax)				
Increase/(decrease) in fair value and foreign exchange movements	(259)	275	(534)	(194)
<i>Oil and gas</i>	(231)	153	(384)	(251)
<i>Electricity</i>	(38)	85	(123)	(144)
<i>FX and interest rate</i>	13	(46)	59	(127)
<i>Other financial asset/liabilities</i>	(114)	86	(200)	(233)
<i>FX gain/(loss) on foreign-denominated financing</i>	111	(3)	114	(3,810)
Impairment, disposals, business restructuring and other	(2,350)	(1,215)	(1,135)	93
Total Items Excluded from Underlying Profit (post-tax)	(2,609)	(940)	(1,669)	178
Underlying Profit	318	1,023	(705)	(69)

Fair value and foreign exchange movements reflect fair value gains/(losses) associated with commodity hedging, interest rate swaps and other financial instruments. These amounts are excluded from Underlying Profit to remove the volatility caused by timing mismatches in valuing financial instruments and the underlying transactions they relate to.

- Oil and gas derivatives manage exposure to fluctuations in the underlying commodity price to which Origin is exposed through its gas portfolio and indirectly through Origin's investment in APLNG. See Section 5.2.2 for details of Origin's APLNG-related oil hedging.
- Electricity derivatives, including swaps, options and forward purchase contracts, are used to manage fluctuations in wholesale electricity and environmental certificate prices in respect of electricity purchased to meet customer demand.
- Foreign exchange and interest rate derivatives manage exposures associated with the debt portfolio. A significant portion of debt is euro-denominated and cross-currency interest rate swaps hedge that debt to AUD.
- Other financial assets/liabilities reflects investments held by Origin, including MRCPS issued by APLNG.
- Foreign exchange on foreign-denominated financing reflects currency fluctuations on unhedged USD debt. Debt is maintained in USD to offset the USD investment in MRCPS, which delivers USD cash distributions.

Impairment, disposals, business restructuring and other are either non-cash or non-recurring items and are excluded from Underlying Profit to better reflect the underlying performance of the business. They include:

- \$1,578 million non-cash impairment charges relating to Energy Markets goodwill and generation assets primarily as a result of lower wholesale commodity prices and higher near-term gas supply costs;
- \$669 million deferred tax expense, reflecting the expectation of future distributions from APLNG (see below for details);
- \$198 million net cost relating to a decision to defer the surrender of a portion of Origin's calendar year 2020 and 2021 large-scale generation certificates (see 4.3 below and the Appendix for further details);
- \$123 million benefit relating primarily to a revaluation of the Cameron LNG onerous contract provision associated with stronger near-term assumptions for LNG prices relative to Henry Hub prices and an increase in long-term assumptions for US Treasury bond rates. The realised loss for the period associated with Cameron LNG is recognised in Underlying Profit; and
- \$28 million other primarily relating to losses on disposal and restructuring, transformation and transaction costs.

The nature of Items Excluded from Underlying Profit set out in the above table have been reviewed by our auditor for consistency with the description in note A1 of the Origin Energy Financial Statements.

4.2 Recognition of deferred tax liability - investment in APLNG

An improved outlook for APLNG is expected to drive higher distributable cash flow in the near term and this is expected to result in the MRCPS securities held by Origin being fully redeemed by FY2023, after which APLNG is expected to begin distributing ordinary dividends. The ordinary dividends will be unfranked until APLNG starts paying income tax, which is not expected until later in the decade given existing tax losses held by APLNG.

Typically, when in receipt of unfranked dividends, the income tax expense would be recognised in the year the dividend is received. However, as Origin had an unrecognised deferred tax liability in respect of our investment in APLNG, accounting standards require recognition of a deferred tax expense provided certain criteria are met.

A deferred tax liability arises when the accounting cost base of an asset is higher than the tax cost base, resulting from a temporary difference. The carrying value of our investment in APLNG is significantly higher than the tax cost base, primarily as a result of our equity accounted share of retained profits to date.

Consistent with accounting standards, the deferred tax liability has not been recognised historically because

1. Origin is able to control the timing of distributions from APLNG which would reverse the temporary difference; and
2. it has not been probable that the temporary difference will reverse in the foreseeable future via dividends paid from current retained earnings, capital returns or a disposal.

As it is now probable that APLNG will begin to distribute cash to shareholders via dividends in the coming years, Origin has recognised a deferred tax liability of \$669 million in FY2021 representing 30 per cent of the dividends expected to be paid in the foreseeable future from the existing equity accounted retained earnings based on current market assumptions, including future oil prices.

Recognition of the deferred tax liability only impacts the timing of accounting for the tax expense and has no impact on the underlying economics or cash flows. There is a remaining unrecognised deferred tax liability at 30 June 2021 of \$810 million which may be partly or fully recognised in the future.

Going forward, when Origin receives unfranked dividends from APLNG, the proportion paid from earnings in that year will still incur tax expense, and the balance attributable to retained earnings will result in partial utilisation of the deferred tax liability.

4.3 Accounting for large-scale generation certificate trading strategy

Supply and demand for large-scale generation certificates (LGCs) is driven by the rate of new renewable projects coming online, voluntary demand for carbon offsets as well as the compliance obligations under the Large-scale Renewable Energy Target (LRET). Renewable project delays and generation curtailments have led to a near-term tightening of the LGC market. However, it is expected that the 33 TWh legislated target will be exceeded and longer term the market will be oversupplied. The Clean Energy Regulator has acknowledged this and provides the option for parties to shift demand from periods of tight supply by deferring the surrender of certificates to later years. Under the scheme, parties can defer up to 10 per cent of their obligation at no additional cost and can defer more than 10 per cent by incurring a shortfall charge of \$65 per certificate that is refundable provided the LGCs are surrendered within three years. The refund is currently tax assessable; however legislative change is before Parliament that would make refunds non-assessable (such that it is aligned to treatment of the shortfall charge).

This presents an economic opportunity with the LGC forward curve in backwardation and, as previously disclosed, Origin elected to defer surrender of 2.5 million 2020 calendar year certificates in February 2021. Origin now expects to also defer approximately 3.1 million 2021 calendar year certificates due for surrender in February 2022.

During FY2021, Origin incurred non-deductible shortfall charges of \$262 million, of which \$160 million was paid in relation to the under surrender of 2.5 million 2020 calendar year certificates and a further \$102 million was accrued in relation to the first half of 2021 calendar year.

Included in FY2021 Underlying Profit is a cost of \$64 million reflecting the estimated future surrender cost, based on a weighted average of the current forward price and purchases to date, comprising:

- \$46 million relating to 2020 calendar year (~2.5 million certificates at \$19 each, reflecting the forward price for the 2023 calendar year and purchases to date); and
- \$18 million relating to the first half of 2021 calendar year (~1.55 million certificates at \$12 each, reflecting the forward price for the 2024 calendar year and purchases to date).

The balance of \$198 million is excluded from Underlying Profit. See Appendix for further details.

Subject to changes in volume and forward price estimates, we expect to incur a further \$102 million in the first half of FY2022 relating to the shortfall charge for the second half of calendar 2021¹ and an estimated cost of \$18 million will be recognised in FY2022 Underlying Profit.¹ Future surrender cost will continue to be reassessed each reporting period.

¹ Based on volume and price estimates at 30 June 2021.

4.4 Underlying Profit

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Energy Markets	991	1,459	(468)	(32)
Integrated Gas - Share of APLNG	1,145	1,915	(770)	(40)
Integrated Gas - Other	(10)	(174)	164	(94)
Corporate	(78)	(59)	(19)	32
Underlying EBITDA	2,048	3,141	(1,093)	(35)
Underlying depreciation and amortisation (D&A)	(550)	(509)	(41)	8
Underlying share of ITDA of equity accounted investees	(958)	(1,303)	345	(26)
Underlying EBIT	540	1,329	(789)	(59)
Underlying interest income - MRCPS	106	174	(68)	(39)
Underlying interest income - Other	3	16	(13)	(81)
Underlying interest expense	(242)	(316)	74	(23)
Underlying profit before income tax and non-controlling interests	407	1,203	(796)	(66)
Underlying income tax expense	(87)	(177)	90	(51)
Non-controlling interests' share of Underlying Profit	(2)	(3)	1	(33)
Underlying Profit	318	1,023	(705)	(69)
Underlying EPS	18.1cps	58.1cps	(40.0cps)	(69)
Underlying ROCE	4.5%	8.8%		(4.3)

Refer to Sections 5.1 and 5.2 respectively for Energy Markets and Integrated Gas analysis.

Corporate costs increased by \$19 million, primarily reflecting one-off enterprise resource planning (ERP) implementation costs (\$12 million).

Underlying D&A increased by \$41 million, driven by decommissioning of retail IT systems and increased generation restoration provisions.

Underlying share of ITDA decreased \$345 million, driven by lower ITDA from APLNG (\$380 million), comprising lower tax expense (\$171 million), lower net interest expense (\$98 million), and lower depreciation and amortisation (\$111 million); partly offset by the increase in ITDA from the full year impact of Origin's 20 per cent equity share of Octopus Energy (\$34 million).

Underlying MRCPS interest income decreased \$68 million with a lower principal balance following buy-backs by APLNG, and a higher AUD/USD exchange rate.

Underlying net interest expense decreased \$61 million, reflecting a lower net debt balance and refinancing activities.

4.5 Cash flows

Operating cash flow

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Underlying EBITDA	2,048	3,141	(1,093)	(35)
Underlying equity accounted share of EBITDA (non-cash)	(1,153)	(1,911)	758	(40)
Other non-cash items in Underlying EBITDA	114	157	(43)	(27)
Underlying EBITDA adjusted for non cash items	1,009	1,387	(378)	(27)
Change in working capital	68	(222)	290	(131)
<i>Energy Markets - excluding futures exchange collateral</i>	(29)	74	(103)	(139)
<i>Energy Markets - electricity futures exchange collateral</i>	110	(340)	450	(132)
<i>Integrated Gas - excluding APLNG</i>	(2)	29	(31)	(107)
<i>Corporate</i>	(11)	15	(26)	(173)
Other	(144)	-	(144)	n/a
Tax (paid)/refunded	31	(215)	246	(114)
Cash flow from operating activities	964	951	13	1

Operating cash flow increased \$13 million, reflecting lower working capital requirements and lower tax paid, partially offset by a decrease in Underlying EBITDA adjusted for non-cash items (\$378 million) and other cash items (\$144 million) including the 2020 LGC shortfall charge.

Underlying equity accounted share of EBITDA (non-cash) reflects share of APLNG (\$1,145 million) and share of Octopus Energy (\$9 million). Other non-cash items include provisions for bad and doubtful debts (+\$88 million), share-based remuneration (+\$24 million) and exploration expense (+\$1 million).

Working capital decreased \$68 million in the period, primarily in Energy Markets with higher electricity pool prices at the end of the year resulting in a positive movement in electricity futures collateral (+\$110 million) and positive net creditor movements in wholesale (+\$60 million), as well as lower coal inventory (+\$51 million), partially offset by higher green inventory (-\$132 million).

Electricity futures collateral relates to cash deposited with the futures exchange associated with forward electricity hedge positions.

Investing cash flow

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Capital expenditure	(339)	(500)	161	(32)
Distribution from APLNG	709	1,275	(566)	(44)
Interest received from other parties	3	18	(15)	(83)
Investments/acquisitions	(161)	(165)	4	(2)
Disposals	7	234	(227)	(97)
Cash flow from investing activities	219	862	(643)	(75)

We continue to tightly manage our capital spend, with FY2021 capital expenditure of \$339 million down 32 per cent, and comprising:

- generation maintenance and sustaining capital (\$63 million), primarily at Eraring (\$35 million) and Shoalhaven (\$9 million);
- other sustaining capital (\$136 million) including spend in preparation for the move to five-minute settlement of pool prices (\$34 million), LPG (\$24 million), and Origin ERP system replacement (\$38 million);
- productivity/growth (\$94 million) including deferred and contingent licensing payment to Octopus Energy (\$36 million), and other Kraken implementation costs (\$14 million), CES (\$14 million); and
- exploration and appraisal spend (\$46 million) primarily related to the appraisal program in the Beetaloo Basin.

Cash distributions from APLNG amounted to \$709 million comprising \$110 million of MRCPS interest (down from \$181 million in FY2020) and \$599 million of MRCPS buy-backs (down from \$1,094 million in FY2020). Disposals in the prior period relate primarily to the sale of the Ironbark CSG acreage.

Interest received decreased, reflecting a lower cash balance following repayment of maturing debt obligations.

Investments include deferred and contingent consideration for the equity interest in Octopus Energy (\$141 million) and for OC Energy (\$11 million), as well as investments in Future Energy (\$5 million) and LPG (\$5 million).

Financing cash flow

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Net proceeds/(repayment) of debt	(1,042)	(1,173)	131	(11)
Operator cash call movements	(90)	56	(146)	(261)
On-market purchase of employee shares	(96)	(75)	(21)	28
Close out of foreign currency contracts	(65)	(55)	(10)	18
APLNG loan (repayment)/proceeds ¹	(3)	(8)	5	(63)
Interest paid	(234)	(310)	76	(25)
Payment of lease liabilities	(76)	(75)	(1)	1
Dividends paid	(343)	(478)	135	(28)
Total cash flow from financing activities	(1,949)	(2,118)	169	(8)
Effect of exchange rate changes on cash	(2)	(1)	(1)	100

¹ APLNG loan (repayment)/proceeds represents cash (used by)/generated by APLNG as part of its normal business operations deposited to a project finance debt service reserve accounts. Upon issuance of a bank guarantee to APLNG by Origin the cash was distributed to Origin by way of a loan.

Repayment of debt reflects capital market debt repaid from cash held and from Free Cash Flow.

Operator cash call movements represent the movement in funds held and other balances relating to Origin's role as the upstream operator of APLNG.

On-market purchase of shares represents the purchase of shares to satisfy employee share remuneration schemes and the Dividend Reinvestment Plan (DRP).

Settlement of foreign currency contracts represents the partial closure of contracts executed in prior periods to monetise the value in certain cross-currency interest rate swap contracts. The value of outstanding contracts as at 30 June 2021 was \$93 million.

Free Cash Flow

Free Cash Flow represents cash flow available to pay dividends, repay debt, invest in major growth projects or return surplus cash to shareholders. This is prepared on the basis of equity accounting of APLNG.

The Octopus Energy equity investment and Kraken licence implementation costs are considered major growth and \$191 million of investing cash outflows has been excluded from FY2021 Free Cash Flow.

(\$m)	Energy Markets		Integrated Gas - Share of APLNG		Integrated Gas - Other		Corporate		Total	
	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20	FY21	FY20
Underlying EBITDA	991	1,459	1,145	1,915	(10)	(174)	(78)	(59)	2,048	3,141
Non-cash items	89	137	(1,145)	(1,915)	6	11	11	13	(1,039)	(1,753)
Change in working capital	81	(266)	-	-	(2)	29	(11)	15	68	(222)
Other	(143)	(23)	-	-	(4)	24	3	(1)	(144)	-
Tax (paid) /refunded	-	-	-	-	-	-	31	(215)	31	(215)
Operating cash flow	1,018	1,307	-	-	(10)	(109)	(44)	(247)	964	951
Capital expenditure	(263)	(395)	-	-	(60)	(94)	(16)	(10)	(339)	(500)
Cash distribution from APLNG	-	-	-	-	709	1,275	-	-	709	1,275
(Acquisitions)/disposals	(155)	(165)	-	-	-	234	1	-	(154)	69
Interest received	-	-	-	-	-	-	3	18	3	18
Investing cash flow	(418)	(560)	-	-	649	1,414	(12)	8	219	862
Interest paid	-	-	-	-	-	-	(234)	(310)	(234)	(310)
Free Cash Flow including major growth	600	747	-	-	638	1,305	(289)	(549)	949	1,503
Major growth spend	191	141	-	-	-	-	-	-	191	141
Free Cash Flow	791	888	-	-	638	1,305	(289)	(549)	1,140	1,644

4.6 Shareholder returns

The board has determined to pay an unfranked final dividend of 7.5 cents per share. This brings Origin's total distributions to shareholders for FY2021 to 20.0 cents per share, representing 31 per cent of free cash flow. The final dividend will be paid on 1 October 2021 to shareholders registered as at 8 September 2021.

During the period, \$191 million was incurred in respect of the investment in Octopus Energy and the costs associated with the Kraken system implementation. This has been treated as major growth expenditure and excluded from Free Cash Flow when measuring the dividend pay-out percentage.

The nil franking percentage reflects the current franking credit balance. A low franking balance is expected over the near term.

Origin will seek to deliver sustainable shareholder returns through the business cycle and will target a payout range of 30 per cent to 50 per cent of Free Cash Flow per annum in the form of ordinary dividends and/or on-market share buy-backs. Free Cash Flow is defined as cash from operating activities and investing activities (excluding major growth projects), less interest paid. Remaining cash flow will be applied to further debt reduction, value accretive organic growth and acquisition opportunities, and/or additional capital management initiatives.

The Board maintains discretion to adjust shareholder distributions for economic and business conditions.

The DRP will operate with nil discount and will be satisfied through on-market share purchases. The DRP price of shares will be the average purchase price, rounded to two decimal places, bought on market over a period of 10 trading days, commencing on the third trading day immediately following the Record Date.

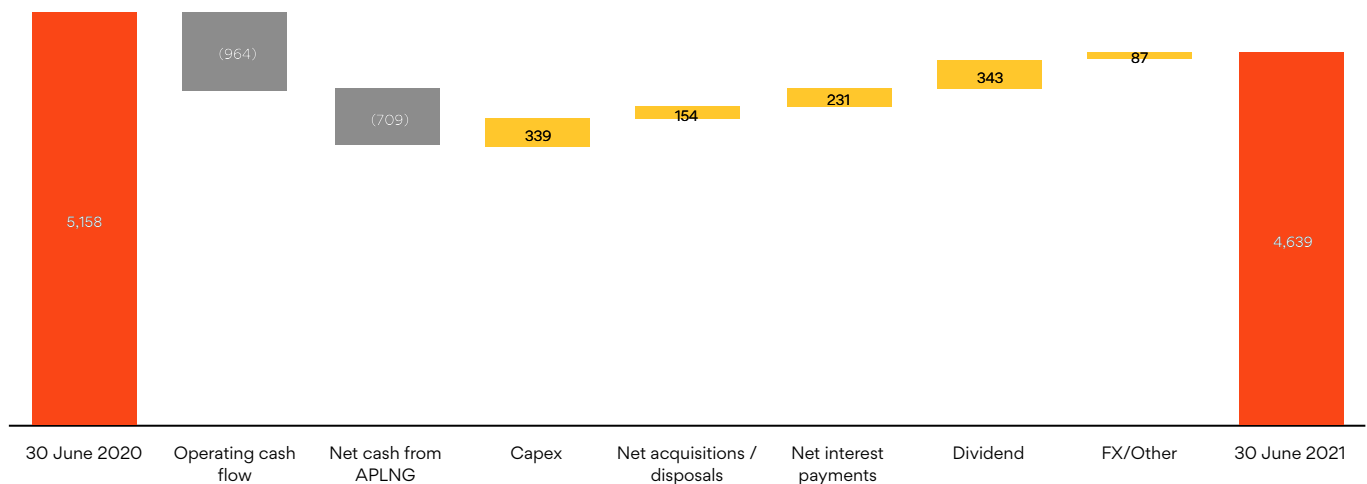
4.7 Capital management

During FY2021, the following capital management initiatives were completed:

- Repaid and extended the tenor of our debt facilities:
 - repaid €750 million (A\$950 million) 2.8 per cent effective interest rate debt;
 - repaid US\$65 million (A\$86 million) 4.4 per cent fixed interest rate debt;
 - extended the tenor of A\$1.1 billion of bank debt from FY2023 to FY2025; and
 - extended the tenor of a US\$200 million (A\$266 million) bank guarantee facility from FY2023 to FY2025.
- Cancelled \$0.2 billion in undrawn bank loan facilities that were surplus to requirements.

Adjusted Net Debt

Movements in Adjusted Net Debt (\$m)



Adjusted Net Debt decreased \$519 million, driven by strong operating cash flow and APLNG cash distributions. This was partially offset by capital expenditure, investment in growth, interest payments and dividends to shareholders.

Foreign exchange/other primarily reflects the non-cash translation of unhedged USD debt and fees, partially offset by on-market purchase of shares (\$96 million), operator cash call movements (\$90 million), and settlement of foreign currency contracts (\$65 million).

Origin's objective is to maintain an Adjusted Net Debt/Adjusted Underlying EBITDA ratio of 2.0-3.0x and a gearing¹ target of 20 per cent to 30 per cent. As previously foreshadowed, at 30 June 2021 these ratios were 2.9x and 32 per cent respectively, reflecting the reduction in EBITDA associated with lower prices across our key commodities; electricity, natural gas and oil. With continued strong cash flows from both our businesses and signs of recovery in each of these commodities, we remain focused on maintaining our target capital structure and achieving net debt below \$4 billion over the medium term.

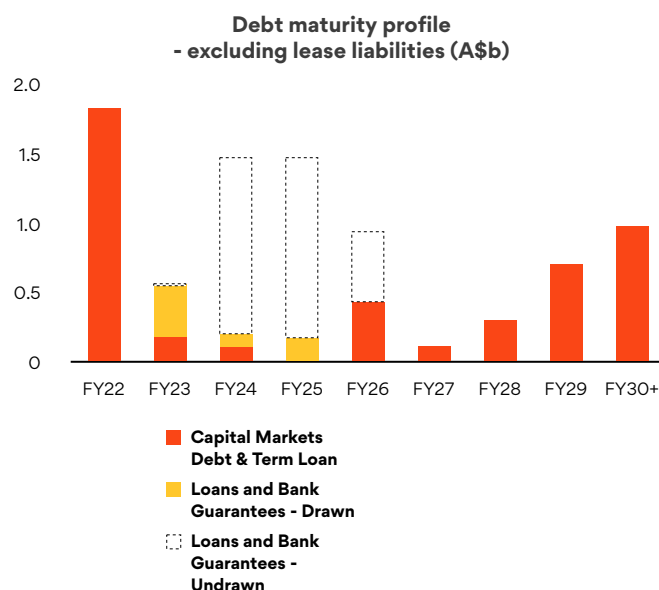
As our Adjusted Net Debt balance has declined from a peak of \$13.1 billion as at 30 June 2015 to \$4.6 billion, the quantum of debt capital we need to refinance in any year is lower. This reduced debt refinancing activity going forward means one investment-grade credit rating is sufficient for our debt capital requirements. During the year, we reduced our credit rating providers from two to one. Our long-term credit profile is Baa2 (stable) from Moody's.

¹ Gearing is Adjusted Net Debt divided by Adjusted Net Debt plus Equity.

Debt portfolio management

Average term to maturity decreased from 3.9 years at 30 June 2020 to 3.4 years at 30 June 2021. The rolling 12-month average interest rate on drawn debt decreased from 4.8 per cent in FY2020 to 4.3 per cent in FY2021.

As at 30 June 2021, Origin held \$0.4 billion¹ of cash and \$2.8 billion in committed undrawn debt facilities. This liquidity position of \$3.3 billion is held to meet near-term debt and lease liability payment obligations of \$1.8 billion (net of \$0.1 billion fair value adjustments) and to maintain a sufficient liquidity buffer.



APLNG funding

During construction of APLNG, shareholders contributed capital via ordinary equity and the investment in preference shares (termed MRCPS) issued by APLNG. APLNG distributes funds to shareholders firstly via fixed dividends of 6.37 per cent per annum on the MRCPS balance, recognised as interest income by Origin, and secondly via buy-backs of MRCPS, refer to Section 4.5 above. The fair value of MRCPS held by Origin at 30 June 2021 was A\$1,296 million.

APLNG also funded construction via US\$8.5 billion (100% APLNG) in project finance facilities. These facilities were partially refinanced in FY2019. The outstanding balance at 30 June 2021 was US\$5,908 million (A\$7,860 million), net of unamortised debt fees of US\$65 million (A\$86 million). APLNG's average interest rate associated with its project finance debt portfolio for FY2021 was 3.0 per cent.

Gearing² in APLNG was 26 per cent as of 30 June 2021, down from 28 per cent at 30 June 2020.

APLNG project finance debt amortisation profile

Closing balance as at 30 June										
(US\$m)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bank loan (variable) ¹	1,972	1,689	1,407	1,153	871	587	265	-	-	-
US Exim	2,001	1,772	1,519	1,247	965	679	382	162	-	-
USPP	2,000	2,000	2,000	1,940	1,887	1,787	1,690	1,437	930	297
Total	5,973	5,461	4,927	4,340	3,722	3,052	2,337	1,599	930	297

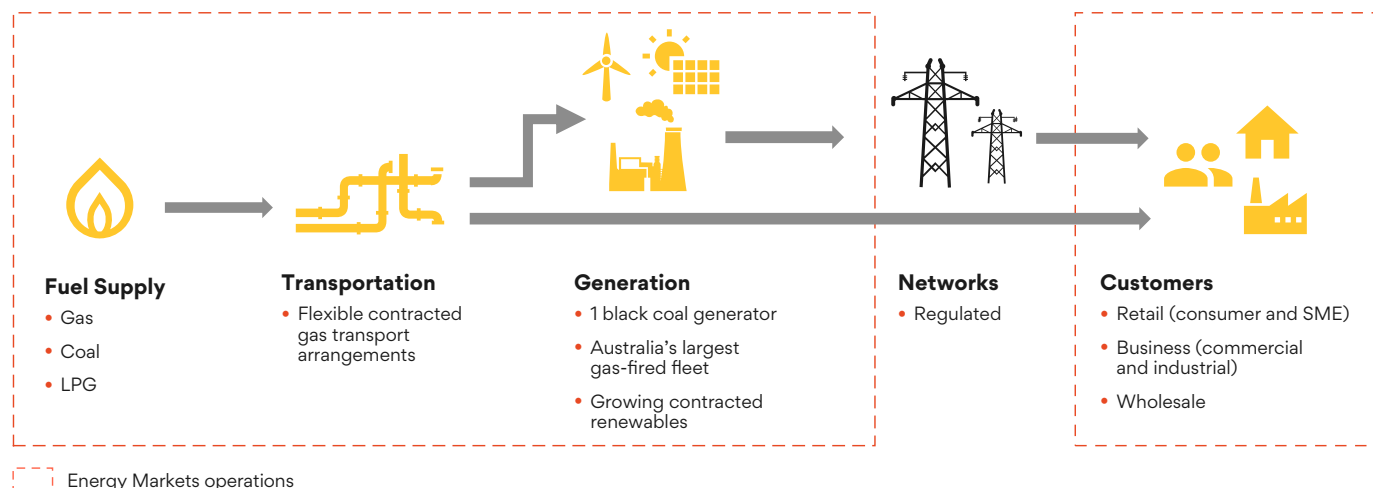
¹ Based on current forward interest rates

¹ Excludes \$30 million cash held on behalf of APLNG as upstream operator.

² Gearing is defined as project finance debt less cash, divided by project finance debt less cash plus equity.

5 Review of segment operations

5.1 Energy Markets

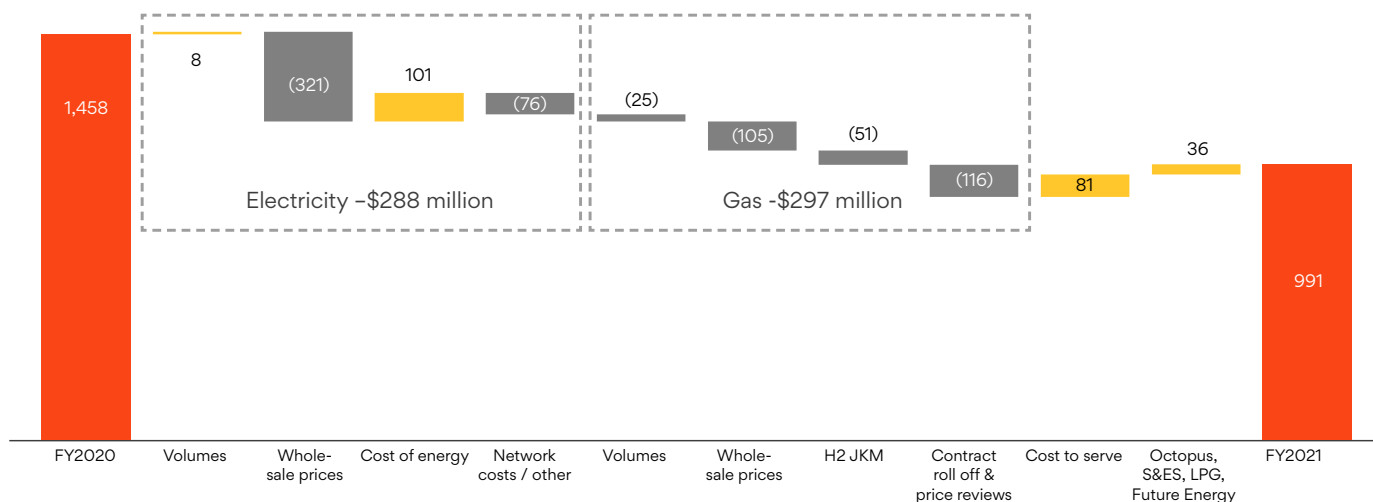


Origin's Energy Markets business comprises one of Australia's largest energy retail businesses by customer accounts, Australia's largest fleet of gas-fired peaking power stations supported by a substantial contracted fuel position, a growing supply of contracted renewable energy and Australia's largest power station, the black coal-fired Eraring Power Station.

Energy Markets reports on an integrated portfolio basis. Electricity and Natural Gas Gross Profit and cost to serve are reported separately, as are the EBITDA of the Solar and Energy Services, Future Energy and LPG divisions, and our 20 per cent share of earnings from Octopus Energy.

5.1.1 Financial summary

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Electricity Gross Profit	899	1,187	(288)	(24)
Natural Gas Gross Profit	447	744	(297)	(40)
Electricity and Natural Gas cost to serve	(489)	(570)	81	(14)
LPG EBITDA	89	83	6	7
Solar and Energy Services EBITDA	55	33	22	66
Future Energy EBITDA	(19)	(15)	(4)	28
Share of EBITDA from Octopus Energy	9	(4)	13	(303)
Underlying EBITDA	991	1,459	(468)	(32)
Underlying EBIT	432	974	(542)	(56)



5.1.2 Electricity

Volume summary

Volumes sold (TWh)	FY21			FY20			Change (TWh)	Change (%)
	Retail	Business	Total	Retail	Business	Total		
NSW ¹	7.9	8.6	16.4	7.8	8.7	16.5	(0.1)	(0.7)
Queensland	4.3	3.7	8.0	4.1	3.6	7.7	0.3	3.6
Victoria	2.8	3.2	6.1	2.9	3.4	6.2	(0.2)	(2.7)
South Australia	1.3	1.8	3.1	1.3	1.7	3.1	0.0	0.7
Total volumes sold	16.3	17.3	33.5	16.1	17.4	33.5	0.0	0.1

1 Australian Capital Territory customers are included in New South Wales.

Gross Profit summary

	FY21		FY20		Change (%)	Change (\$/MWh)
	\$m	\$/MWh	\$m	\$/MWh		
Revenue	7,136	212.7	7,509	224.0	(5)	(11.3)
Retail (residential/SME)	4,381	269.6	4,567	283.9	(4)	(14.3)
Business	2,754	159.3	2,941	168.7	(6)	(9.3)
Cost of goods sold	(6,237)	(185.9)	(6,322)	(188.6)	1	2.7
Network costs	(3,156)	(94.1)	(3,142)	(93.8)	(0)	(0.3)
Energy procurement costs	(3,081)	(91.9)	(3,179)	(94.9)	3	3.0
Gross Profit	899	26.8	1,187	35.4	(24)	(8.6)
Gross margin %	12.6%		15.8%		(20)	

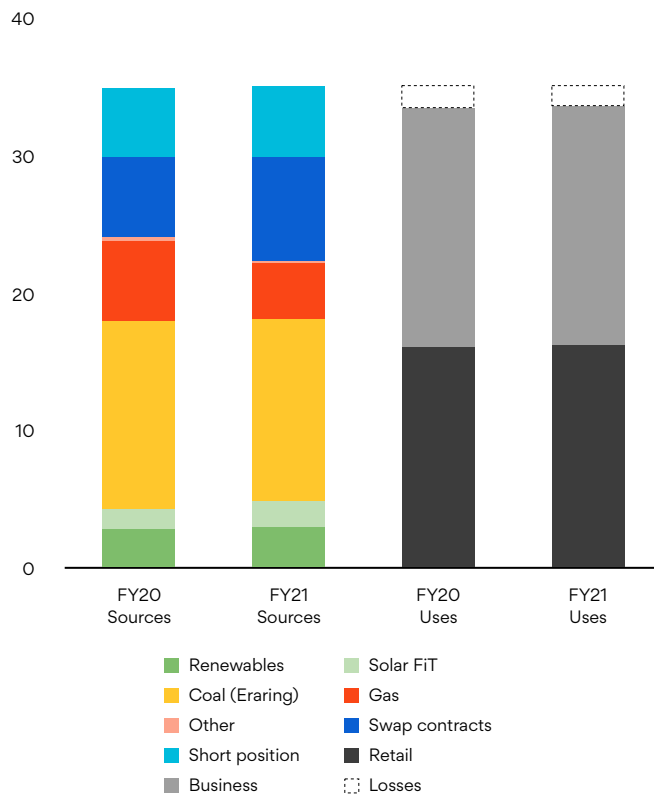
Electricity Gross Profit declined by \$288 million driven by:

- \$8.6/MWh decrease in unit margins (-\$296 million):
 - \$220 million relating to lower wholesale electricity and renewable certificate prices, with a reduction in customer tariffs (-\$321 million) partially offset by cost improvements (+\$101 million), primarily relating to net pool and swap costs and lower green scheme costs; and
 - \$76 million due to increased network costs (-\$42 million) and metering costs (-\$13 million) not recovered in regulated tariffs, and ongoing costs associated with customer support during COVID-19 and competition (-\$21 million).
- Volumes were stable, reflecting an increase in retail of 0.2 TWh, offset by a 0.1 TWh decrease in business, with +\$8 million impact to Gross Profit. Higher residential demand related to working from home was partly offset by lower usage due to solar and energy efficiencies. Lower business volumes due to COVID-19 were partly offset by new contract wins.

Owned and contracted generation output of 20 TWh was lower by 2 TWh, driven primarily by lower gas generation (-1.7 TWh) due to lower pool prices, lower demand and elevated gas generation in FY2020 to cover an outage at Eraring Power Station. Output at Eraring was lower (-0.4 TWh), reflecting lower wholesale prices. Both were partially offset by increased generation from renewable PPAs (+0.1 TWh) and solar feed-in tariffs (+0.4 TWh). Refer to Electricity Supply table below.

Approximately 16 TWh per annum (or ~50 per cent) of our electricity supply costs are relatively fixed, subject to recontracting coal from FY2023, representing Eraring and the bundled renewable PPAs. Energy procurement costs decreased overall, driven by lower fuel costs with less gas-fired generation, lower pool costs and lower capacity hedge costs. These were partially offset by an increase in market contracts with more volume hedged and higher unit costs due to the timing of the sale and purchase of swaps.

Sources and uses of electricity (TWh)



Wholesale energy costs

	FY21			FY20		
	\$m	TWh	\$/MWh	\$m	TWh	\$/MWh
Fuel cost ¹	837	17.5	47.9	992	19.6	50.6
Generation operating costs	240	17.5	13.8	216	19.6	11.0
Owned generation ¹	1,078	17.5	61.7	1,208	19.6	61.6
Net pool costs ²	230	5.1	45.5	303	4.9	61.3
Bundled renewable PPAs ³	282	3.0	95.3	264	2.9	92.1
Market contracts ³	485	7.7	62.9	362	6.0	59.9
Solar feed-in tariff	203	1.9	106.1	181	1.5	117.9
Capacity hedge contracts	308			342		
Green schemes (excl. PPAs)	484			506		
Other	12			14		
Energy procurement costs	3,081	35.1⁴	87.9	3,179	35.0⁴	90.9

1 Includes volume from internal generation and contracted from Pelican Point.

2 Net pool costs includes gross pool purchase costs net of pool revenue from generation, gross and net settled PPAs, and other contracts.

3 Bundled PPAs includes cost of electricity and renewable certificates. Market contracts include swap and energy hedge contracts.

4 Volume differs from sales volume due to energy losses of 1.6 TWh (FY2020: 1.5 TWh).

Electricity supply

	Nameplate capacity (MW)	Type ¹	FY21			FY20			Change		
			Output	Pool revenue		Output	Pool revenue		Output	Pool revenue	
			(GWh)	(\$m)	(\$/MWh)	(GWh)	(\$m)	(\$/MWh)	(GWh)	(\$m)	(\$/MWh)
Eraring	2,922										
Units 1-4	2,880	Black Coal	13,276	1,008	76	13,634	1,065	79	(358)	(57)	(3)
GT	42	OCGT	-	-	-	-	-	-	-	-	-
Darling Downs	644	CCGT	1,696	147	87	2,067	130	79	(371)	17	8
Osborne ²	180	CCGT	379	22	58	703	58	93	(324)	(36)	(36)
Uranquinty	664	OCGT	142	36	255	422	75	125	(280)	(39)	130
Mortlake	584	OCGT	512	43	85	932	91	106	(420)	(48)	(22)
Mount Stuart	423	OCGT	35	22	619	4	0	103	32	22	516
Quarantine	230	OCGT	129	16	125	188	29	153	(59)	(13)	(28)
Ladbroke Grove	80	OCGT	82	9	106	155	19	123	(73)	(10)	(17)
Roma	80	OCGT	47	10	219	17	2	109	30	8	110
Shoalhaven	240	Pump/hydro	122	10	79	156	26	135	(35)	(16)	(56)
Internal generation	6,047		16,420	1,323	81	18,279	1,495	82	(1,859)	(172)	(1)
Pelican Point	240	CCGT	1,050			1,317			(267)		
Renewable PPAs	1,207	Solar / Wind	2,959			2,871			88		
Owned and contracted generation	7,494		20,429			22,467			(2,038)		

1 OCGT = open cycle gas turbine; CCGT = combined cycle gas turbine.

2 Origin has a 50 per cent interest in the 180 MW plant and contracts 100 per cent of the output.

5.1.3 Natural Gas

Volume summary

Volume sold (PJ)	FY21			FY20			Change (PJ)	Change (%)
	Retail	Business	Total	Retail	Business	Total		
NSW ¹	12.1	24.1	36.2	11.0	22.8	33.8	2.4	7
Queensland	3.3	66.8	70.1	3.1	66.9	70.0	0.1	0
Victoria	24.8	46.3	71.1	25.2	58.3	83.6	(12.4)	(15)
South Australia ²	5.7	9.8	15.5	5.7	10.6	16.3	(0.8)	(5)
External volumes sold	45.9	147.0	192.9	45.0	158.6	203.6	(10.7)	(5)
Internal sales (generation)			38.4			55.6	(17.2)	(31)
Total volumes sold			231.3			259.2	(27.9)	(11)

1 Australian Capital Territory customers are included in New South Wales.

2 Northern Territory and Western Australia customers are included in South Australia.

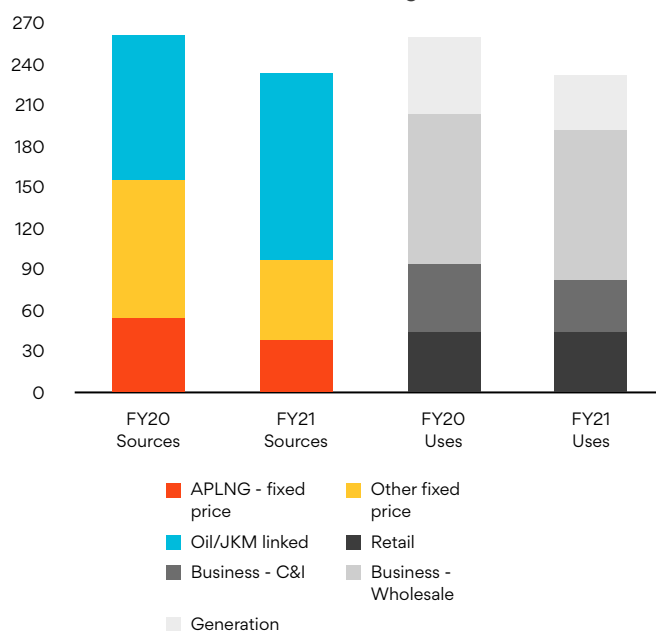
Gross Profit summary

	FY21		FY20		Change (%)	Change (\$/GJ)
	\$m	\$/GJ	\$m	\$/GJ		
Revenue	2,455	12.7	2,835	13.9	(13)	(1.2)
Retail (residential/SME)	1,148	25.0	1,163	25.8	(1)	(0.8)
Business	1,307	8.9	1,672	10.5	(22)	(1.7)
Cost of goods sold	(2,008)	(10.4)	(2,090)	(10.3)	4	(0.1)
Network costs	(789)	(4.1)	(796)	(3.9)	1	(0.2)
Energy procurement costs	(1,218)	(6.3)	(1,294)	(6.4)	6	0.0
Gross Profit	447	2.3	744	3.7	(40)	(1.3)
Gross margin %	18.2%		26.3%		(31)	

Natural Gas Gross Profit decreased \$297 million driven by:

- -\$105 million primarily due to lower customer tariffs, including oil-linked sales;
- -\$51 million higher JKM-linked supply costs in the second half;
- -\$78 million due to the roll-off of long-term supply and transport capacity contracts;
- -\$38 million reflecting supply contract price reviews; and
- 10.7 PJ decrease in external sales volume (-\$25 million) due to expiration of business contracts and COVID-19 impacts, partly offset by increased retail customers and higher residential demand.

Sources and uses of gas (PJ)



5.1.4 Electricity and Natural Gas cost to serve

	FY21	FY20	Change (\$)	Change (%)
Cost to maintain (\$ per average customer) ¹	(100)	(121)	21	(17)
Cost to acquire/retain (\$ per average customer) ¹	(36)	(38)	2	(4)
Electricity and Natural Gas cost to serve (\$ per average customer)¹	(136)	(159)	23	(14)
Maintenance costs (\$m)	(359)	(434)	76	(17)
Acquisition and retention costs (\$m) ²	(130)	(136)	6	(4)
Electricity and Natural Gas cost to serve (\$m)	(489)	(570)	81	(14)

¹ Represents cost to serve per average customer account, excluding CES accounts.

² Customer wins (FY2021: 484,000; FY2020: 491,000) and retains (FY2021: 1,441,000; FY2020: 1,396,000).

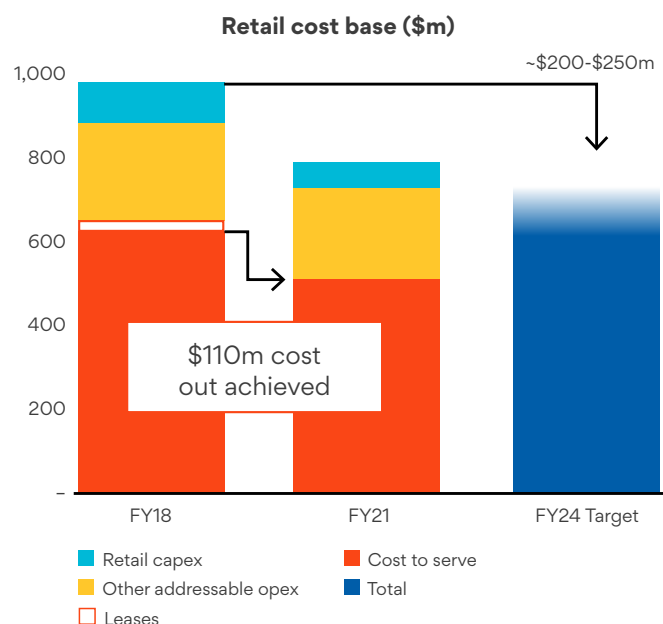
	FY21 (\$m)	FY20 (\$m)	Change (\$)	Change (%)
<i>Labour</i>	(136)	(150)	15	(10)
<i>Bad and doubtful debts</i>	(83)	(113)	30	(26)
<i>Other variable costs</i>	(102)	(125)	23	(18)
Retail and Business	(321)	(388)	67	(17)
Wholesale	(56)	(51)	(5)	11
Corporate services and IT	(112)	(131)	20	(15)
Electricity and Natural Gas cost to serve	(489)	(570)	81	(14)

Overall, Electricity and Natural Gas cost to serve reduced by \$81 million, primarily driven by further operating cost savings as well as a reduction in bad and doubtful debt expense, with the \$38 million provision increase associated with COVID-19 risk in FY2020 not repeating.¹

Bad debt expense as a percentage of total Electricity and Natural Gas revenue decreased to 0.9 per cent from 1.1 per cent in FY2020, which included the \$38 million provision related to COVID-19.

We delivered our targeted \$100 million cost savings, having achieved savings of \$110 million in cost to serve from a baseline in FY2018 after adjusting for the impacts of lease accounting.

The next wave of retail transformation is targeting a further reduction of \$100–\$150 million in operating and capital cost savings by FY2024 from a baseline of FY2018, following successful implementation of Octopus Energy's Kraken platform and operating model. Approximately one third of savings is expected to be capital in nature with some of these savings already achieved. The remaining two thirds is expected from reduced operating costs to be achieved over FY2023 - 24.



¹ The total increase in bad and doubtful debt provision relating to COVID-19 risks was \$40 million, of which \$38 million impacted electricity and gas cost to serve and the remainder impacted the Solar and Energy Services division.

Customer accounts

Customer accounts ('000) as at	30 June 2021	30 June 2020	Change
Electricity	2,625	2,631	(6)
NSW ¹	1,175	1,191	(16)
Queensland	637	645	(8)
Victoria	566	556	10
South Australia ²	246	239	7
Natural Gas	1,249	1,220	29
NSW ¹	350	335	15
Queensland	178	181	(3)
Victoria	492	479	13
South Australia ²	228	225	3
Total electricity and natural gas³	3,874	3,851	23
Rolling average customer accounts	3,855	3,827	28
Broadband	33	20	13
LPG ⁴	359	365	(6)
Total customer accounts	4,266	4,236	30

1 Australian Capital Territory customer accounts are included in New South Wales.

2 Northern Territory and Western Australia customer accounts are included in South Australia.

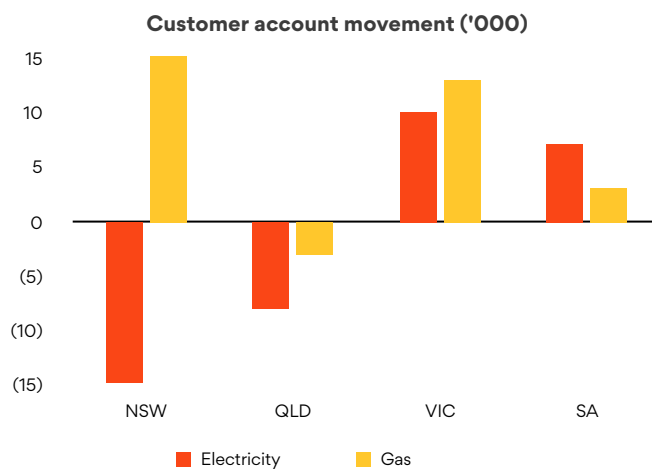
3 Includes 280,000 CES customer accounts (FY2020: 257,000).

4 June 2020 LPG customer accounts restated to include ~2,500 Asia Pacific customer accounts.

Although price dispersion and in situ churn have reduced following the introduction of the DMO and VDO, the market remains highly competitive and we continue to take a disciplined approach to share and customer lifetime value.

Origin churn decreased to 12.5 per cent during the period, compared to market churn of 17.3 per cent.

Period end customer accounts rose by 30,000 overall. Electricity customer accounts fell by 6,000, primarily in New South Wales, and Natural Gas customer accounts increased by 29,000, driven primarily by gains in New South Wales and Victoria. Broadband customer accounts increased by 13,000 during the period to a total of 33,000 and LPG customer accounts decreased by 6,000 to 359,000 at 30 June 2021.



5.1.5 LPG

	FY21	FY20	Change	Change (%)
Volumes (kT)	389	417	(28)	(7)
Revenue (\$m)	589	608	(19)	(3)
Cost of goods sold (\$m)	(388)	(417)	29	(7)
Gross Profit (\$m)	201	191	9	5
Operating costs (\$m)	(112)	(108)	(4)	4
Underlying EBITDA (\$m)	89	83	6	7

Origin is one of Australia's largest LPG and propane suppliers, procuring and distributing LPG to residential and business locations across Australia and the Pacific.

Gross Profit increased by \$9 million despite lower volumes for the year. This was driven by changes in product mix and lower cost of goods sold, particularly relating to foreign exchange gains on shipping payments. Operating costs marginally increased to \$112 million, driven by additional restructuring and site remediation provisions.

5.1.6 Solar and Energy Services

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Revenue	346	299	47	16
CES Gross Profit	82	75	7	9
Solar Gross Profit	39	31	8	26
Other Gross Profit	5	5	(0)	-
Gross Profit	126	111	15	14
Operating costs	(70)	(77)	7	(9)
Underlying EBITDA	55	33	22	67

Origin provides installation of solar photovoltaic (PV) systems and batteries to residential and business customers, and ongoing support and maintenance services. CES supplies electricity and gas to apartment owners and occupiers, and body corporates through embedded networks and serviced hot water.

Underlying EBITDA increased by \$22 million. This was driven by growth in Solar Gross Profit (+\$8 million), with overall growth in residential solar installations, a \$7 million increase in CES Gross Profit due to continued customer account growth in the embedded networks and serviced hot water business, and a \$7 million reduction in operating costs due to reduced labour costs and bad and doubtful debt expense.

5.1.7 Future Energy

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Operating costs	(25)	(15)	(10)	67
Other income	6	-	6	N/A
EBITDA	(19)	(15)	(4)	27
Investments	(5)	(15)	11	(67)

Future Energy is focused on developing and commercialising new products and technologies to engage customers in an increasingly distributed and data-driven energy landscape. Through the year, we continued to expand the scale and sophistication of our Virtual Power Plant (VPP), with 159 MW now connected from a range of distributed energy and Internet of Things (IoT) devices, including hot water systems, solar, batteries, air conditioners and various industrial assets. This represents a new type of instrument in our wholesale portfolio, where we can aggregate, control and dispatch thousands of distributed assets in response to market conditions and our portfolio position, creating value for both us and our customers through lower cost of energy.

Of the 79,000 connected services, more than 56,000 are from our Spike program, which was launched in August 2020. Spike is a behavioural demand response program that rewards customers for reducing their energy usage and has proven to be very engaging with customers, with more than 843,000 SpikeHour invitations converting to a 67 per cent participation rate. We have also deployed in-app solar and battery features that provide our customers with powerful insights on how they use and manage energy in their homes.

Operating costs increased during the period, largely due to costs relating to the launch of Spike, along with the scaling of our VPP and demand response offerings. The business continues to make small investments in trialling new energy solutions as we continue to transition to a low carbon future.

Other income in the period related to distributions received from equity investments.

5.1.8 Octopus Energy - Origin share (20 per cent)

	FY21 (\$m)
Revenue - energy	750
Revenue - licensing	31
Cost of sales	(740)
Gross Profit	41
Operating costs	(32)
EBITDA	9
Other expense	(2)
Depreciation and amortisation ¹	(39)
Interest expense	(4)
Tax expense	4
NPAT	(32)

¹ Includes \$17.8 million Origin adjustment to amortisation relating to the fair value attributed to intangible assets, including Kraken, on acquisition date.

Octopus customer accounts (100 per cent Octopus)

	FY21 ('000)
Energy customer accounts (closing)	4,214
Energy customer accounts (average)	3,486
Licensed Kraken platform customer accounts migrated to date (closing)	4,726
Licensed Kraken platform customer accounts migrated to date (average)	2,124

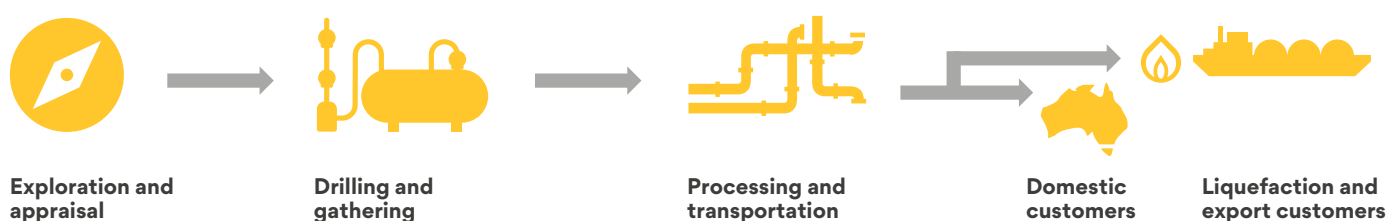
Origin's share of Octopus Energy EBITDA for the period was \$9 million, reflecting strong customer growth and ongoing investment in growth in the UK as well as launching in the United States, New Zealand and German markets. Customer accounts in the underlying UK retail business have grown on average by ~108,000 per month since our investment in May 2020, to ~4.2 million customer accounts at the end of June 2021.

Licensing deals with E.On and Origin are progressing well, with ~4.6 million customer accounts migrated at the end of FY2021. To date, 17 million customer accounts are contracted to be migrated to the Kraken platform, with approximately £250 million of licensing revenue expected over the next three years. Octopus's partnership with Tokyo Gas, announced in December 2020, will see an Octopus branded retailer launch in the Japanese market. Octopus continues its growth trajectory and is targeting approximately 100 million customer accounts by 2027.

5.2 Integrated Gas

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Share of APLNG (see Section 5.2.1)	1,145	1,915	(770)	(40)
Integrated Gas - Other (see Section 5.2.2)	(10)	(174)	164	(94)
Underlying EBITDA	1,135	1,741	(606)	(35)
Underlying depreciation and amortisation	(30)	(29)	(1)	3
Underlying share of ITDA from APLNG	(917)	(1,296)	379	(29)
Underlying EBIT	188	416	(228)	(55)

5.2.1 Share of APLNG



Origin has a 37.5 per cent shareholding in APLNG, an equity accounted incorporated joint venture. APLNG operates Australia's largest CSG to LNG export project (by nameplate capacity) with the country's largest 2P CSG reserves.¹ Origin is the operator of the upstream CSG exploration and appraisal, development and production activities. ConocoPhillips is the operator of the 9 mtpa two-train LNG liquefaction facility at Gladstone in Queensland.

As APLNG is an equity accounted incorporated joint venture, Integrated Gas reports its share of APLNG EBITDA. The share of APLNG ITDA is recorded as a line item between EBITDA and EBIT.

APLNG acquired various CSG interests from Tri-Star in 2002 that are subject to reversionary rights and an ongoing royalty interest in favour of Tri-Star. These interests represent approximately 20 per cent of APLNG's 2P CSG reserves and approximately 19 per cent of 3P (proved plus probable plus possible) CSG reserves (as at 30 June 2021). Refer to Section 7 for disclosure relating to Tri-Star litigation associated with these CSG interests.

Financial summary – APLNG

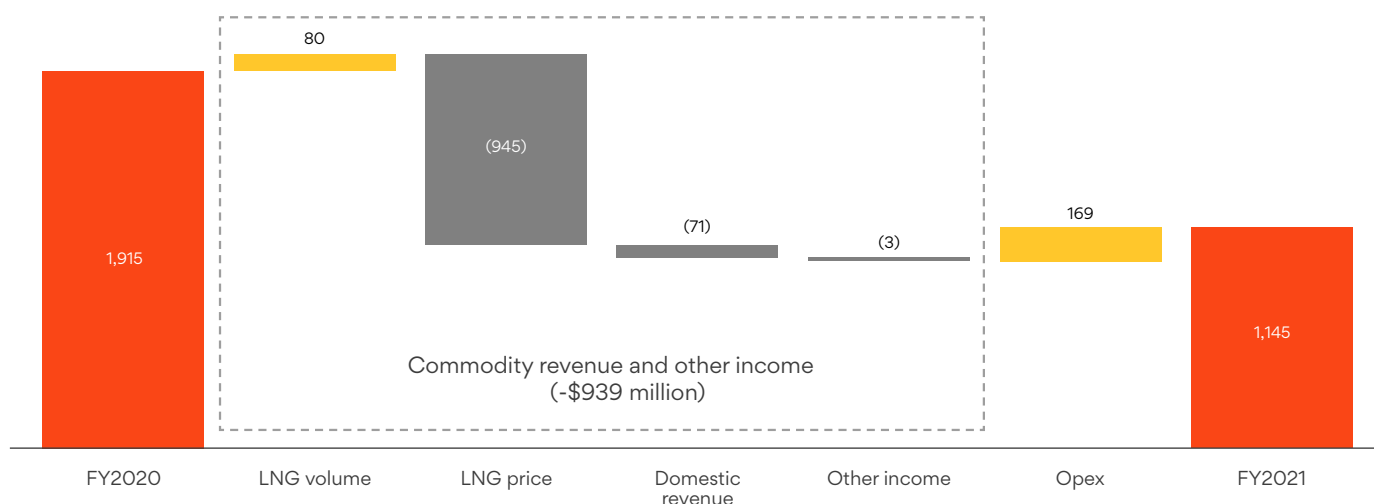
(\$m)	FY21		FY20	
	APLNG 100%	Origin share	APLNG 100%	Origin share
Commodity revenue and other income ¹	4,595	1,723	7,100	2,662
Operating expenses	(1,544)	(578)	(1,992)	(747)
Underlying EBITDA	3,051	1,145	5,108	1,915
Depreciation and amortisation	(1,568)	(588)	(1,863)	(699)
MRCPS interest expense	(282)	(106)	(463)	(174)
Project finance interest expense	(270)	(101)	(372)	(140)
Other financing expense	(87)	(33)	(102)	(37)
Interest income	6	2	40	15
Income tax expense	(255)	(95)	(708)	(266)
Underlying ITDA²	(2,456)	(921)	(3,468)	(1,301)
Underlying Profit	595	224	1,640	614

¹ Includes commodity revenue plus other income of \$16 million (Origin share) primarily related to tolling revenue and FX (FY2020: \$19 million Origin share).

² See Origin Financial Statements note B2.1 for details relating to a \$4 million difference between APLNG ITDA and Origin's reported share.

¹ As per EnergyQuest EnergyQuarterly, June 2021.

Movements in Underlying EBITDA (\$m)



Origin's share of APLNG Underlying EBITDA decreased by \$770 million, primarily due to lower realised oil prices. The price lag in the LNG contracts resulted in the April and May 2020 low crude oil prices flowing through into FY2021. Similarly, higher prices experienced this calendar year to date will predominantly flow through into FY2022.

- Commodity revenue and other income decreased by \$939 million, primarily reflecting a realised oil price of US\$43/bbl (A\$58/bbl) compared to US\$68/bbl (A\$101/bbl) in FY2020.
- Operating expenses reduced by \$169 million, driven by lower royalties and tariffs as a result of lower revenue, less gas purchased and other operating cost savings. See below for further details.

Origin's share of depreciation and amortisation reduced by \$111 million, reflecting a lower amortisation unit rate and a higher AUD/USD exchange rate. Downhole costs are amortised using a units of production method. With the development plan for the year reflecting lower capital costs, this has translated to a lower amortisation charge.

MRCPS interest expense reduced by \$68 million due to a reduction in MRCPS balance following buy-backs by APLNG and a higher AUD/USD exchange rate. Project finance interest decreased by \$39 million due to a lower principal, lower average interest rate and a higher AUD/USD exchange rate. See Section 4.7 for details relating to APLNG funding.

APLNG volume summary

	FY21		FY20	
	APLNG 100%	Origin share	APLNG 100%	Origin share
Volumes (PJ)				
Operated	537	202	542	203
Non-operated	163	61	165	62
Total production	701	263	708	265
Purchases	6	2	17	7
Changes in upstream gas inventory/other	(12)	(4)	(15)	(6)
Liquefaction/downstream inventory/other	(39)	(15)	(42)	(16)
Total sales	656	246	668	251
Commodity revenue (\$m)				
Domestic gas	672	252	861	323
LNG	3,880	1,455	6,188	2,320
Sales mix (PJ)				
Domestic gas	158	59	187	70
LNG contract	450	169	449	169
LNG spot	48	18	32	12
Realised price				
Domestic gas (A\$/GJ)	4.24		4.61	
LNG (A\$/GJ)	7.79		12.86	
LNG (US\$/mmbtu)	6.17		9.12	

APLNG production was relatively stable, despite a significant reduction in planned development activity and costs, reflecting the quality of the resource. Strong field capability enabled the flexibility to curtail production early in the year in response to lower demand coupled with planned maintenance, and then ramping up to record levels as demand increased later in the year.

APLNG sales volumes decreased 2 per cent, primarily reflecting lower purchased gas in the period.

The average realised LNG price decreased 39 per cent to A\$7.79/GJ due to a lower realised oil price, partially offset by higher spot LNG volumes and prices. The average realised domestic gas price decreased 8 per cent to \$4.24/GJ, primarily driven by lower realised prices on oil-linked sales to QGC.

Cash flow – APLNG 100%

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Underlying EBITDA	3,051	5,108	(2,057)	(40)
Non-cash items in underlying EBITDA	8	66	(58)	(88)
Change in working capital	265	64	201	314
Other	(10)	4	(14)	(350)
Operating cash flow¹	3,314	5,242	(1,928)	(37)
Capital expenditure ¹	(459)	(1,038)	579	(56)
Interest income ¹	8	40	(32)	(80)
Acquisitions/disposals ¹	-	(245)	245	(100)
Loans (advanced to)/paid by other shareholders	3	14	(11)	(79)
Investing cash flow	(448)	(1,229)	781	(64)
Project finance interest and transaction costs ¹	(263)	(382)	119	(31)
Repayment of project finance ¹	(672)	(731)	59	(8)
Other financing activities ¹	(48)	(45)	(3)	7
Repayment of lease liabilities ¹	(45)	(80)	35	(44)
Interest on lease liabilities ¹	(19)	(19)	-	-
MRCPS interest	(293)	(480)	187	(39)
MRCPS buy-back	(1,598)	(2,918)	1,320	(45)
Financing cash flow	(2,938)	(4,655)	1,717	(37)
Net decrease in cash and cash equivalents	(72)	(642)	570	(89)
Effect of exchange rate changes on cash ¹	(95)	104	(199)	(191)
Net decrease in cash and cash equivalents including FX movement	(167)	(538)	371	(69)
Distributable cash flow¹	1,721	2,846	(1,125)	(40)

¹ Included in distributable cash flow. Distributable cash flow represents the net increase in cash, including foreign exchange movements before MRCPS interest and buy-backs, and transactions with shareholders.

APLNG generated distributable cash flow of \$1,721 million (\$645 million Origin share) at an effective oil price of US\$43/bbl after servicing project finance interest and principal. Cash distributions to Origin were \$709 million in FY2021, reflecting a draw down of cash during the period. The project finance facility requires APLNG to hold an amount of cash to service near-term operational and project finance obligations. As at 30 June 2021, APLNG held \$905 million (\$1,072 million at 30 June 2020).

As well as benefiting from improved field performance, as upstream operator of APLNG we have achieved significant reductions in well costs and unit operating costs in recent years. We continue to target further value accretion by focusing and aligning the business around five key levers, coupled with our continued focus on reducing Scope 1 and 2 carbon emissions within our operations. These levers are:

1. Reduce well capital costs;
2. Reduce operating costs;
3. Improve well reliability;
4. Optimise production; and
5. Extend production plateau.

Operating expenditure – APLNG 100%

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Purchases	(41)	(89)	48	(54)
Royalties and tariffs ¹	(180)	(502)	322	(64)
Upstream operated opex	(767)	(770)	3	(0)
Upstream non-operated opex	(249)	(278)	29	(10)
Downstream opex	(221)	(248)	27	(11)
APLNG Corporate/other	(86)	(105)	19	(18)
Total operating expenses per Profit and Loss	(1,544)	(1,992)	448	(22)
Other cash items	(89)	(63)	(26)	42
Total operating cash costs	(1,633)	(2,055)	422	(21)

¹ Reflects actual royalties paid. At breakeven price, royalties and tariffs would have amounted to \$147 million (FY2020: \$96 million).

Operating expenses reduced \$448 million, primarily driven by lower royalties and pipeline tariffs (\$322 million) and lower purchases (\$48 million). Upstream non-operated opex decreased \$29 million, driven by cost reduction initiatives impacting workover, labour and power costs. Downstream opex reduced \$27 million due to lower shipping costs, reflecting no cargoes sold on a Delivered at Terminal (DAT) basis in FY2021. APLNG Corporate/other reduced \$19 million, reflecting an exploration write-off in the prior period (\$56 million) offset by gas inventory movements (\$42 million).

Capital expenditure – APLNG 100%

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Operated upstream - Sustain	(285)	(546)	261	(48)
Operated upstream - Infrastructure	(11)	(83)	72	(87)
Exploration and appraisal	(23)	(88)	65	(74)
Downstream	(14)	-	(14)	N/A
Non-operated	(95)	(205)	110	(54)
Total capital expenditure	(429)	(922)	493	(53)

Capital expenditure decreased \$493 million, driven by a \$261 million decrease in operated sustain costs, reflecting reduced development activity enabled by improved field performance. Operated infrastructure costs reduced \$72 million due to the completion of the Talinga Orana Gas Gathering Station in the prior period. Exploration and appraisal spend declined \$65 million and non-operated spend reduced \$110 million due to reduced activity including the decision by APLNG to not participate in less economic fields. Savings in downstream spend as a result of fewer purchases of spares for maintenance were offset by a \$50 million benefit in the prior period for settlement of a project construction claim.

Operated upstream - Sustain includes expenditure for drilling, completions, fracture stimulation, the gathering network, surface connection, capital improvements and land access which occurs over multiple years. In FY2021, 86 operated wells were drilled (versus 260 in FY2020), 18 wells were fracture stimulated (versus 74 in FY2020) and 141 operated wells were commissioned (versus 267 in FY2020).

5.2.2 Integrated Gas – Other

This segment comprises Origin Integrated Gas activities that are separate from APLNG, and includes exploration interests in the Beetaloo, Cooper-Eromanga and Canning basins and a potential conventional development resource in the offshore Browse Basin. It also includes overhead costs (net of recoveries) incurred as upstream operator and corporate service provider to APLNG, costs associated with growth initiatives such as hydrogen, and costs incurred in managing Origin's exposure to LNG pricing risk and impacts of its LNG trading positions.

Beetaloo Basin (Northern Territory)

Origin has a 77.5 per cent interest in three exploration permits over 18,500 km² in the Beetaloo Basin. Stage 2 appraisal under the farm-in arrangement is underway, targeting three independent shale gas plays. Work continues with regulators and Native Title holders to ensure operations are conducted safely and with transparency around the necessary approvals and consents.

- **Kyalla liquids-rich gas play** – The Kyalla 117 well was drilled to a total measured depth of 3,809 metres, which includes a 1,579 metre lateral section.

During the period, Origin undertook fracture stimulation and initial flowback and production testing activities with nitrogen lift operations enabling sustained production for up to ~17 hours without assistance to measure initial flow rates. The Kyalla 117 well successfully met its primary objective to flow liquids-rich gas from the Kyalla Formation to the surface. Preliminary production test data and petrophysical data included:

- unassisted gas flow rates ranging from 0.4–0.6 mmscf/d (0.6–0.9 TJ/d);
- highly saline stimulation flowback rates constraining production (water to gas ratios > 1,000 bbl/mmscf);
- liquids-rich gas (65 per cent methane, 19 per cent ethane, 11 per cent propane and butane, 3 per cent C5+); and
- minimal CO₂ < 1 per cent.

Recent activity has focused on the continued clean-up of the Kyalla 117 well in preparation for an extended production testing, using nitrogen to support operations. The well began flowing again without assistance for intermittent periods; however, production has not been sustained. Operations were temporarily paused to investigate a potential downhole flow restriction, with the results informing the development of a new go-forward plan.

- **Velkerri liquids-rich gas play** – Construction of the Velkerri 76 well lease pad was completed and environmental approval to drill and fracture stimulate the Velkerri Flank well was granted in December 2019. The Velkerri 76 vertical well was spudded in August 2021 to collect core, log, and Diagnostic Fracture Injection Testing data to assess the prospectivity of liquids rich gas.
- **Velkerri dry gas play** – The production test of Amungee NW 1H well commenced in August 2021 to assess if all original stages that were stimulated during the previous test in 2016 are contributing to flow rates.

Cooper-Eromanga Basin (Queensland)

Origin has a 75 per cent interest and operatorship of five permits located in the Cooper-Eromanga Basin in south west Queensland, and has recently acquired 100 per cent interest in one additional permit. In December 2020, the first vertical exploration well, Obelix-2, was drilled to test the maturity of the Toolebuc Formation. Log and core data from the well are being evaluated with results on maturity and hydrocarbon saturations expected in early FY2022 to inform the ongoing work program. The staged farm-in work program involves drilling up to five exploration wells to be completed by the end of 2024, targeting both unconventional liquids and gas.

Canning Basin (Western Australia)

Origin entered into agreements in December 2020 with Buru Energy to farm in to a 50 per cent equity share in five permits, and a 40 per cent equity share in two permits. The CY2021 work program includes the drilling of two wells to assess conventional oil prospects (Currajong and Rafael) and the acquisition of 2D seismic. The Currajong 1 well was drilled to a total measured depth of 2,340 metres in August 2021. Results obtained indicate potential oil bearing zones with options for a production test of the well being developed. The Rafael 1 well is expected to spud in Q1 FY2022.

Financial summary

	FY21 (\$m)	FY20 (\$m)	Change (\$m)	Change (%)
Origin only commodity hedging and trading	55	(92)	147	(160)
Other Origin only costs	(65)	(82)	17	(21)
Underlying EBITDA	(10)	(174)	164	(94)
Underlying depreciation and amortisation/ITDA	(26)	(24)	(2)	8
Interest income - MRCPS	106	174	(68)	(39)
Underlying Profit/(Loss)	71	(23)	94	(409)

Refer to the following table for a breakdown of Origin only commodity hedging and trading costs.

Other Origin only costs reduced \$17 million, primarily reflecting costs in the prior period associated with an agreement to reduce Origin's share of overriding royalty in the Beetaloo Basin.

Commodity hedging and trading summary

FY2021 positions realised a \$55 million net gain compared to a \$92 million loss in FY2020. Based on open positions at current forward market prices¹, we estimate a net loss on oil hedging and LNG trading in FY2022 of \$176 million.

(\$m)	FY21 actual	FY20 actual	FY22 estimate ¹
Oil hedging premium expense	(9)	(29)	(26)
Gain/(loss) on oil hedging	101	8	(108)
Gain/(loss) on LNG hedging/trading	(37)	(72)	(42)
Total	55	(92)	(176)

¹ Based on forward prices as at 28 July 2021.

Oil hedging

Origin has entered into oil hedging instruments to manage its share of APLNG oil price risk based on the primary principle of protecting the Company's investment grade credit rating and cash flows during volatile market periods.

For FY2022, Origin's share of APLNG related Japan Customs-cleared Crude (JCC) oil price exposure is estimated to be approximately 23 mmbœ. As at 28 July 2021, we estimate that 11.7 mmbœ has been priced at approximately US\$68/bbl before any hedging, based on the LNG contract lags.

Origin has separately hedged 9.6 mmbbl, primarily using swaps, producer collars and put options, of which 4.0 mmbbl has been realised as at 28 July 2021 at an average price of approximately US\$63/bbl (see table below). Premium spend for this hedge position is A\$26 million to be incurred in FY2022.

Hedge instruments	Realised as at 17 Jul 2021		Remaining unrealised	
	Volume (mmbbl)	Average price	Volume (mmbbl)	Average price
Brent AUD swaps	1.3	A\$70/bbl	1.3	A\$75/bbl
Brent USD swaps	1.9	US\$45/bbl	2.7	US\$46/bbl
Brent producer collars	0.2	US\$35-90/bbl	0.5	US\$35-90/bbl
Brent puts	0.6	US\$43/bbl	1.1	US\$40/bbl
Total hedged	4.0		5.6	
Brent USD calls	2.9	US\$57/bbl	2.8	US\$59/bbl

The FY2023 hedge position consists of:

- 4.4 mmbbl hedged at a fixed price of US\$54/bbl, with all of this hedged amount participating in market prices above US\$63/bbl and capped at US\$78/bbl; and
- 1.6 mmbbl hedged at a floor price of US\$35/bbl, with all of this hedged amount participating in market prices up to US\$90/bbl.

The total premium spend for this hedge position is A\$20 million to be incurred in FY2023.

LNG hedging and trading

In 2013, Origin established a Henry Hub linked contract to purchase 0.25 mtpa from Cameron LNG for a period of 20 years, with the first cargo delivered to Origin in June 2020.

In FY2020, a non-cash onerous provision of \$641 million was recognised, which has been revalued at \$397 million as at 30 June 2021, reflecting stronger near-term assumptions for LNG prices relative to Henry Hub prices, higher US Treasury bond rates, the realised loss for the period and favourable movements in the AUD/USD rate.

In 2016, Origin established a contract with ENN LNG Trading Company Limited to sell 0.28 mtpa on a Brent oil-linked basis commencing in FY2019 and ending in December 2023. A non-cash onerous provision of \$13 million has been recognised in FY2021 in respect of this contract reflecting stronger near-term assumptions for LNG prices.

These contracts and derivative hedge contracts that manage the price risk associated with the physical LNG contracts form part of an LNG trading portfolio.

¹ As at 28 July 2021.

6 Risks related to Origin's future financial prospects

The scope of operations and activities means that Origin is exposed to risks that can have a material impact on our future financial prospects. Material risks, and the Company's approach to managing them, are summarised below.

Risk management framework

Overseen by the Board and the Board Risk Committee, Origin's risk management framework supports the identification, management and reporting of material risks. Risks are identified that have the potential to impact the delivery of business plans and objectives. Risks are assessed using a risk toolkit that considers the level of consequence and likelihood of occurrence using consistent risk assessment criteria.

The risk framework incorporates a 'three lines of defence' model for managing risks and controls in areas such as health and safety, environment (including climate change), finance, reputation and brand, legal and compliance and social impacts. All employees are responsible for making risk-based decisions and managing risk within approved risk appetite and specific limits.

The Board reviews Origin's material risks each quarter and assesses the effectiveness of the Company's risk management framework annually in accordance with the ASX Corporate Governance Principles and Recommendations.

Three lines of defence

Line of defence	Responsibility	Primary accountability
First line Lines of business	Identifies, assesses, records, prioritises, manages and monitors risks.	Management
Second line Oversight functions	Provides the risk management framework, tools and systems to support effective risk management.	Management
Third line Internal audit	Provides assurance on the effectiveness of governance, risk management and internal controls.	Board, Board Committees and Management

Our risk framework supports the identification and management of emerging risks and escalating threats. During FY2021, COVID-19 was a key threat to our operational and financial performance, requiring ongoing response and management across many of our existing material risks to minimise impacts. Our priorities continue to focus on the health and safety of our people, customers and the communities we operate in. We are ensuring the continuity of our operations and supporting activities, including our supply chain, to continue to provide our essential services to our customers and maintaining our financial resilience to respond to changes in global markets.

Material risks

The risks identified in this section have the potential to materially affect Origin's ability to meet its business objectives and impact its future financial prospects. These risks are not exhaustive and are not arranged in order of significance.

Strategic risks

Strategic risks arise from uncertainties that may emerge in the medium to longer term and, while they may not necessarily impact on short-term profits, can have an immediate impact on the value of the Company. These Strategic risks are managed through continuous monitoring and reviewing of emerging and escalating risks, ongoing planning and the allocation of resources, and evaluation from management and the Board.

Risk	Consequences	Management
Climate change	<p>Origin is exposed to risks and opportunities relating to (i) the transition to a low-carbon economy and (ii) doing business in a low carbon economy. These include the continued decarbonisation of energy markets, decreased demand for fossil fuels, reduced lifespan of carbon-intensive assets, changes to energy market dynamics caused by the low variable cost and intermittency of renewables, changing government regulation including regulatory intervention, climate change policy, growing customer demand for lower-carbon sources of energy, and new technologies and business models responding to decarbonisation trends.</p> <p>One of the most immediate climate change risks Origin faces is reputational and market risk, arising from rapidly changing stakeholder expectations and perceptions of our contribution to the transition to a low carbon economy and delivering on climate change targets and commitments. This could result in the increasing cost of, or losing access to, debt and equity capital, and insurance, as well as our</p>	<ul style="list-style-type: none"> • Our strategy for transitioning to a carbon constrained future is to focus on and invest in lowering existing and future carbon emissions across our portfolio. • In Energy Markets this includes: <ul style="list-style-type: none"> - Exiting coal-fired generation by 2032, at the latest. - Growing our supply of renewable generation. - Using the flexibility in our gas supply and peaking generation capacity to manage the intermittency of renewables. - Investing in leading-edge technologies to drive greater efficiency in operations and reduce emissions. • In Integrated Gas, this includes: <ul style="list-style-type: none"> - Reducing and removing operational emissions from Australia Pacific LNG through upgrading equipment and changed processes.

Risk	Consequences	Management
	<p>social licence to operate and the ability to attract and retain customers and talent.</p> <p>There is an increased risk of climate change related litigation against Origin, including action against Origin and/or the regulatory bodies that grant licences or approvals to Origin which could potentially result in more onerous licence/approval conditions, non-renewal of licences/approvals or other adverse consequences. Litigation could also be initiated by external stakeholders relating to investment, greenwashing and governance.</p> <p>Origin is also exposed to the physical impacts of a changing climate such as the impact of changing weather patterns on the demand for energy and the resilience of our assets and the energy infrastructure we use to changing and more frequent and severe weather conditions including floods, droughts, heat waves and bushfires. This could impact our business operation as well as that of our value chain and private and public investment, and result in many of the other risks mentioned above.</p>	<ul style="list-style-type: none"> - Engaging in early phase activities in carbon capture and storage, credible carbon offsets and low carbon customer solutions, including renewable hydrogen and ammonia. • Origin's capital allocation process and investment decisions incorporate a price on carbon. Investment in projects will be consistent with Origin's decarbonisation commitments. • Origin is using the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) for governance oversight and reporting of our climate change risks. • Origin has science-based targets to halve Scope 1 and 2 greenhouse gas emissions and reduce Scope 3 emissions by 25% by 2032, from our 2017 baseline, and we aim to achieve net zero emissions by 2050. We are in the process of updating our targets to a 1.5°C pathway. • Origin has a short-term emissions target to reduce Scope 1 emissions by 10 per cent on average over FY2021-23 from a FY2017 baseline, linked to executive remuneration. <p>Our operational planning and design processes incorporate extreme weather events, while investment decisions for major growth projects incorporate potential financial losses from natural disasters.</p>
Competition	<p>Origin operates in a highly competitive retail environment which can result in pressure on margins and customer losses.</p> <p>Competition also impacts Origin's wholesale business, with generators competing for capacity and fuel and the potential for gas markets to be impacted by new domestic gas resources, LNG imports and the volume of gas exports.</p>	<ul style="list-style-type: none"> • Our strategy to mitigate the impact of this risk on our retail business is to provide customers with value for money products with exceptional service whilst continuously focussing on maintaining our cost leadership and innovation. The migration of our business to Octopus' Kraken platform should see Origin maintain our churn advantage to competitors through extending leadership in cost, products and service. • We endeavour to mitigate the impact of this risk on our wholesale business by sourcing competitively priced fuel to operate our generation fleet and through efficient operations optimising flexibility in our fuel, transportation and generation portfolio.
Technological developments / disruption	<p>Origin is exposed to risks and opportunities to new digital, and low-carbon technologies.</p> <p>Distributed generation is empowering consumers to own, generate and store electricity, consuming less energy from the grid. Technology is allowing consumers to understand and manage their power usage through smart appliances, having the potential to disrupt the existing utility relationship with consumers.</p> <p>Technology also allows customers to have increased awareness of the impact of when they consume energy and where that energy may be sourced from.</p> <p>Advances in technology and the abundance of low-cost data acquisition, communication and control has the potential to create new business models and introduce new competitors.</p>	<ul style="list-style-type: none"> • Origin actively participates and invests in technological developments through local and global start-up accelerator programs, trialling new energy technology and in new products and business models. • In parallel, Origin is growing its distributed generation and home energy services businesses and endeavouring to mitigate the impact of this risk on its core energy businesses by offering superior service and innovative products and reducing cost to serve. • Origin is pursuing opportunities in low-carbon technologies such as hydrogen, e-mobility, and carbon management.
Changes in demand for energy	<p>The volume or source of energy demanded by customers could change due to price, consumer behaviour, community expectations, mandatory energy efficiency schemes, Government policy, weather and other factors. This change in demand for energy could:</p> <ul style="list-style-type: none"> • reduce Origin's revenues and adversely affect Origin's future financial performance; or • restrict optimising future financial opportunities if Origin fails to adequately prepare. 	<ul style="list-style-type: none"> • Our strategy of increasing our supply of renewables, and investing in new technology supports Origin's ability to meet future increases in energy demand. • Origin is partially mitigating the impact of this risk by developing data-based customer propositions and better predicting customer demand through our AI orchestration platform, which connects and controls distributed assets and IoT devices, and by applying advanced data analytics capability.

Risk	Consequences	Management
Regulatory policy	Origin has broad exposure to regulatory policy change and other government interventions. Changes to policy and other government interventions can impact financial outcomes and, in some cases, change the commercial viability of existing or proposed projects or operations. Specific areas subject to review and development include government subsidising building of new generation or transmission capacity, government direct investment in generation, energy market design, domestic and international climate change policies, domestic gas market interventions, retail price and consumer protection regulation, and royalties and taxation policy.	<ul style="list-style-type: none"> • Origin contributes to the policy process at federal, state and territory governments by actively participating in public policy debate, proactively engaging with policy makers and participating in public forums, industry associations, think tanks and research. • Origin advocates directly with key members of governments, opposition parties and bureaucrats to achieve sound policy outcomes aligned with our commercial objectives. Origin also makes formal submissions to relevant government policy inquiries. • Origin actively promotes the customer and economic benefits publicly that flow from our activities in deregulated energy markets.

1 Incurred within the domestic market; excluding LPG and Corporate as their emissions are not material.

Financial risks

Financial risks are the risks that directly impact the financial performance and resilience of Origin.

Risk	Consequences	Management
Commodity	<p>Origin has a long-term exposure to international oil, LNG and gas prices through the sale of domestic gas, LNG and LPG, and its investment in APLNG. Pricing can be volatile and downward price movements can impact cash flow, financial performance, reserves and asset carrying values. Some of Origin's long-term domestic gas purchase agreements and APLNG's LNG sale agreements contain periodic price reviews. Following each review, pricing may be adjusted upwards or downwards, or it may remain unchanged.</p> <p>Prices and volumes for electricity that Origin sources to on-sell to customers are volatile and are influenced by many factors that are difficult to predict. Long term fluctuations in coal and gas prices also impact the margins of Origin's generation portfolio.</p>	<ul style="list-style-type: none"> • Commodity exposure limits are set by the Board to manage the overall financial exposure that Origin is prepared to take. • Origin's commodity risk management process monitors and reports performance against defined limits. • Commodity price risk is managed through a combination of physical positions and derivatives contracts. • For each periodic price review, a negotiation strategy is developed, which takes into account external market advice and utilises both external and in-house expertise.
Foreign exchange and interest rates	Origin has exposures through principal debt and interest payments associated with foreign currency and Australian dollar borrowings, through the sale and purchase of gas, LNG and LPG, and through its investments in APLNG and the Company's other foreign operations. Interest rate and foreign exchange movements could lead to a decrease in revenues or increased payments in Australian dollar terms.	<ul style="list-style-type: none"> • Risk limits are set by the Board to manage the overall exposure. • Origin's treasury risk management process monitors and reports performance against defined limits. • Foreign exchange and interest rate risks are managed through a combination of physical positions and derivatives.
Liquidity and access to capital markets	Origin's business, prospects and financial flexibility could be adversely affected by a failure to appropriately manage its liquidity position, or if markets are not available at the time of any financing or refinancing requirement.	<ul style="list-style-type: none"> • Origin actively manages its liquidity position through cash flow forecasting and maintenance of minimum levels of liquidity as determined under Board approved limits.
Credit and counterparty	Some counterparties may fail to fulfil their obligations (in whole or part) under major contracts.	<ul style="list-style-type: none"> • Counterparty risk assessments are regularly undertaken and where appropriate, credit support is obtained to manage counterparty risk.

Operational risks

Operational risks arise from inadequate or failed internal processes, people or systems or from external events.

Risk	Consequences	Management
Safe and reliable operations	<p>Origin has exposure to reliability or major accident events that may impact our licence to operate or financial prospects. This includes loss of containment, cyber-attack and security incidents, unsafe operations, and natural hazards, events that may result in harm to our people, environmental damage, additional costs, production loss, third party impacts, and impact to our reputation.</p> <p>A production outage or constraint, network or IT systems outage, would affect Origin's ability to deliver electricity and gas to its customers.</p> <p>A serious incident or a prolonged outage may also damage Origin's financial prospects and reputation.</p>	<ul style="list-style-type: none"> • Core operations are subject to a comprehensive framework of controls and operational performance monitoring to manage the design, operational and technical integrity of our assets and associated operational activities. Origin's standards and controls are designed to ensure it meets regulatory and industry standards in all operations. • Origin personnel are appropriately trained and licensed to perform their operational activities. • Origin maintains an extensive insurance program to mitigate consequences by transferring financial risk exposure to third parties where commercially appropriate.
Environmental and Social	<p>An environmental incident or Origin's failure to consider and adequately mitigate the environmental, social and socio-economic impacts on communities and the environment has the potential to cause environmental impact, community action, regulatory intervention, legal action, reduced access to resources and markets, impacts to Origin's reputation and increased operating costs.</p> <p>Community concerns regarding environmental and social impacts associated with our activities may also give rise to unrest amongst community stakeholder groups and activism which may impact the company's reputation. A third party's actions may also result in delay in Origin carrying out its approved development and operational activities. NGOs, landholders, community members and other affected parties can seek to prevent or delay Origin's activities through court litigation, preventing access to land and extending approval pathway timeframes.</p>	<ul style="list-style-type: none"> • Origin engages with communities to understand, mitigate and report on environmental and social risks associated with its projects and operations. • At a minimum, the management of environmental and social risks meets regulatory requirements. Where practical, their management extends to the improvement of environmental values and the creation of socio-economic benefits. • Origin has a cultural awareness learning framework to build awareness of Aboriginal and Torres Strait Islander cultures, histories and achievements. Origin maintains and implements Native Title Agreements and Cultural Heritage Management Plans with Traditional Owners where appropriate. Engagement with impacted groups and consideration of cultural heritage protection is undertaken at ongoing operations and project gates. • A dedicated Board Committee oversees health, safety and environment risk. The Committee receives regular reporting of the highest rated environmental risks and mitigants, and reviews significant incidents and near misses. • Origin engages with its stakeholders prior to seeking relevant approvals for its development and operational activities, and this engagement continues through the life of the project and during operations.
Cyber security	<p>A cyber security incident could lead to a breach of privacy, loss of and/or corruption of commercially sensitive data, and/or a disruption of critical business processes. This may adversely impact customers and the Company's business activities.</p>	<ul style="list-style-type: none"> • A cyber security strategy is in place and is regularly updated to cater for emerging threats, security regulation and stakeholder expectations. • A robust security monitoring and incident response process exists and is exercised on a regular basis. In the event of an incident, Origin is supported by an external incident response and forensics firm. • Origin undertakes regular independent security assurance to assess the resilience of our digital channels and internal security controls. • Employees undertake compulsory cyber awareness training, including how to identify phishing emails and keep data safe; and are subject to a regular program of random testing.

Risk	Consequences	Management
APLNG gas reserves, resources and deliverability	<p>There is uncertainty about the productivity, and therefore economic viability, of resources and developed and undeveloped reserves. As a result, there is a risk that actual production may vary from that estimated, and in the longer term, that there will be insufficient reserves to supply the full duration and volumes to meet contractual commitments.</p> <p>As at 30 June 2021 APLNG's total resources are estimated to be greater than its contractual supply commitments on a volume basis. However, under certain scenarios of production and deliverability of gas over time, there is a risk that the rate of gas delivery required to meet APLNG's committed gas supply agreements may not be able to be met for the later years in the life of existing contracts.</p>	<ul style="list-style-type: none"> • APLNG employs established industry procedures to identify and consider areas for exploration to mature contingent and prospective resources. • APLNG monitors reservoir performance and adjusts development plans accordingly. APLNG continually takes steps to further strengthen the supply base such as lowering costs and identifying new plays. • APLNG is progressing an exploration campaign that if successful, could increase long term supply. • APLNG continues to review business development opportunities for long term gas supply, and has the ability to substitute gas or LNG to meet contractual requirements if required.
Conduct	<p>Unlawful, unethical or inappropriate conduct that falls short of community expectations could result in penalties, reputational/brand damage, loss of customers and adverse financial impacts.</p> <p>Origin's financial prospects and operations are underpinned by our license to operate which requires compliance with stakeholder commitments, regulations, and laws for example privacy, and insider trading.</p>	<ul style="list-style-type: none"> • Origin's people are trained on the laws and regulations that apply to their activities and operations or on the processes that underpin compliance with laws and regulations. • Origin's Purpose, Values, Behaviours and Code of Conduct guide conduct and decision making across Origin. • All Origin's people are trained in our Code of Conduct, and we conduct training for insider trading, privacy and competition and consumer law every year. • Conduct risk and Compliance are identified as material risks within Origin's risk management framework and are regularly reported to the Board Risk Committee. Controls specific to the different parts of Origin's business are the accountability of Business Units and are subject to assurance activities, including Internal Audit.
Joint venture	<p>Third party joint venture operators may have economic or other business interests that are inconsistent with Origin's own and may take actions contrary to the Company's objectives, interests or standards. This may lead to potential financial, reputational and environmental damage in the event of a serious incident.</p>	<ul style="list-style-type: none"> • Origin applies a number of governance and management standards across its various joint venture interests to provide a consistent approach to managing them. • Origin actively monitors and participates in its joint ventures through participation in their respective boards and governance committees.

7 APLNG reversion

In 2002, APLNG acquired various CSG interests from Tri-Star that are subject to reversionary rights and an ongoing royalty in favour of Tri-Star. If triggered, the reversionary rights require APLNG to transfer back to Tri-Star a 45% interest in those CSG interests for no additional consideration. The reversion trigger will occur when the revenue from the sale of petroleum from those CSG interests, plus any other revenue derived from or in connection with those CSG interests, exceeds the aggregate of all expenditure relating to those CSG interests plus interest on that expenditure, royalty payments and the original acquisition price.

The affected CSG interests represent approximately 19 per cent of APLNG's 3P CSG reserves (as at 30 June 2021), and approximately 20 per cent of APLNG's 2P CSG reserves (as at 30 June 2021).

Tri-Star served proceedings on APLNG in 2015 ('reversion proceeding') claiming that reversion occurred as early as 1 November 2008 following ConocoPhillips' investment in APLNG, on the assertion that the equity subscription monies paid by ConocoPhillips, or a portion of them, were revenue for purposes of the reversion trigger. Tri-Star has also claimed in the alternative that reversion occurred in 2011 or 2012 following Sinopec's investment in APLNG. These claims are referred to in this document as Tri-Star's 'past reversion' claims.

Tri-Star has made other claims in the reversion proceeding against APLNG relating to other aspects of the reversion trigger (including as to the calculation of interest, calculation of revenue and the nature and quantum of APLNG's expenditures that can be included), the calculation of the royalty payable by APLNG to Tri-Star, rights in respect of infrastructure, and claims relating to gas sold by APLNG following the alleged reversion dates. APLNG denies these claims and is defending the proceedings.

If Tri-Star's past reversion claims are successful, then Tri-Star may be entitled to an order that reversion occurred as early as 1 November 2008. If the court determines that reversion has occurred, then APLNG may no longer have access to the reserves and resources that are subject to Tri-Star's reversionary interests and may need to source alternative supplies of gas (including from third parties) to meet its contracted commitments. There are also likely to be a number of further complex issues that would need to be resolved as a consequence of any such finding in favour of Tri-Star. These matters will need to be determined by the court (either in the current or in separate proceedings) or by agreement between the parties, and they include:

- the terms under which some of the affected CSG interests will be operated where currently there are no joint operating agreements in place;
- the amount of Tri-Star's contribution to the costs incurred by APLNG in exploring and developing the affected CSG interests between the date of reversion and the date of judgment, which APLNG has stated in its defence and counter-claim are in the order of \$4.56 billion (as at 31 December 2019) if reversion occurred on 1 November 2008; and
- the consequences of APLNG having dealt with Tri-Star's reversionary interests between the date of reversion and the date of judgment, including the gas produced from them. Tri-Star has:
 - estimated the value of such gas which it has been unable to take since the alleged reversion, calculated by reference to the sale of gas as LNG and gas to domestic customers, to be approximately \$3.37 billion (as at 31 March 2019) and approximately \$1.3 billion per annum thereafter. In the alternative, Tri-Star claims that the value of such gas should be assessed by reference to the revenue derived by APLNG or its affiliates from LNG sales since the alleged reversion, being

approximately \$2.5 billion (as at March 2019), or \$2.4 billion (as at March 2019) if the proceeds from sale of LNG is determined to be calculated net of liquefaction costs; and

- alleged that it should be paid the value of such gas or is otherwise entitled to set-off the value of such gas from any amount owing to APLNG arising from APLNG's counter-claim for contribution to the costs incurred by APLNG in exploring and developing the affected CSG interests between the date of reversion and the date of judgment; and
- if reversion occurred:
- the extent of the reversionary interests principally with respect to Tri-Star's ownership and/or rights to use or access certain project infrastructure; and
- the repayment by Tri-Star of the ongoing royalty which has been paid by APLNG since reversion, resulting from its mistake as to the occurrence of the reversion trigger.

If APLNG is successful in defending Tri-Star's past reversion claims in the reversion proceeding, the potential for reversion to otherwise occur in the future in accordance with the reversion trigger will remain.

In 2017, Tri-Star commenced separate proceedings against APLNG ('markets proceeding') which allege that APLNG breached three CSG joint operating agreements by failing to offer Tri-Star (and the other minority participants in those agreements) an opportunity to participate in the "markets" alleged to be constituted by certain of its LNG and domestic gas sales agreements, including the Sinopec and Kansai LNG sale agreements entered into by APLNG in 2011 and 2012. Tri-Star has alleged that it should have been offered participation in those sales agreements for its share of production from those three CSG joint ventures referable to both its small participating interests and its reversionary interests in those joint ventures.

In September 2019, Tri-Star made further claims in the markets proceeding relating to:

- the nature and scope of the obligations of APLNG as operator pursuant to the CSG joint operating agreements;
- Tri-Star's ownership and/or rights to use or access certain project infrastructure; and
- APLNG's entitlement as operator to charge (both historically and in the future) certain categories of costs under the relevant CSG joint operating agreements.

Tri-Star is seeking, amongst other things, damages and/or an order that APLNG offer Tri-Star (and the other minority participants in those CSG joint operating agreements) the opportunity to participate in those sales agreements for their proportionate share of production from those three CSG joint ventures. APLNG denies these claims and is defending these proceedings.

APLNG filed defences and counterclaims in both proceedings in April and May 2020. In December 2020, Tri-Star filed replies and answers in the both proceedings. APLNG filed its rejoinders in the reversion proceeding and the markets proceeding in February and April 2021 respectively. The pleadings are now closed.

In both proceedings, the court has ordered, by consent, that the parties confer as to the real issues in dispute, and, in the reversion proceedings, as to potential separate questions for early determination. Following that process, the court will make further orders for the conduct of the two proceedings (which APLNG expects will continue to be managed in parallel). The usual court process would involve a period of document disclosure, potentially court-ordered mediation and then finally a hearing. The process that will ultimately be followed (and the procedural timetable) is difficult to predict at this stage.

If APLNG is not successful in defending all or some of the claims being made in the proceedings by Tri-Star, APLNG's financial performance may be materially adversely impacted and the amount and timing of cash flows from APLNG to its shareholders, including Origin, may be significantly affected.

8 Important information

Forward looking statements

This Operating and Financial Review (OFR) contains forward looking statements, including statements of current intention, statements of opinion and predictions as to possible future events and future financial prospects. Such statements are not statements of fact and there can be no certainty of outcome in relation to the matters to which the statements relate. Forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual outcomes to be materially different from the events or results expressed or implied by such statements, and the outcomes are not all within the control of Origin. Statements about past performance are not necessarily indicative of future performance.

Neither the Company nor any of its subsidiaries, affiliates and associated companies (or any of their respective officers, employees or agents) (the 'Relevant Persons') makes any representation, assurance or guarantee as to the accuracy or likelihood of fulfilment of any forward looking statement or any outcomes expressed or implied in any forward looking statement. The forward looking statements in this OFR reflect views held only at the date of this report and except as required by applicable law or the ASX Listing Rules, the Relevant Persons disclaim any obligation or undertaking to publicly update any forward looking statements, or discussion of future financial prospects, whether as a result of new information or future events.

Non-IFRS financial measures

This OFR and Directors' Report refers to Origin's financial results, including Origin's Statutory Profit and Underlying Profit. Origin's Statutory Profit contains a number of items that when excluded provide a different perspective on the financial and operational performance of the business. Income Statement amounts, presented on an underlying basis such as Underlying Profit, are non-IFRS financial measures, and exclude the impact of these items consistent with the manner in which senior management reviews the financial and operating performance of the business. Each underlying measure disclosed has been adjusted to remove the impact of these items on a consistent basis. A reconciliation and description of the items that contribute to the difference between Statutory Profit and Underlying Profit is provided in Section 4.1 of this OFR.

Certain other non-IFRS financial measures are also included in this OFR. These non-IFRS financial measures are used internally by management to assess the performance of Origin's business and make decisions on allocation of resources. Further information regarding the non-IFRS financial measures is included in the Glossary of this OFR. Non-IFRS financial measures have not been subject to audit or review. Certain comparative amounts from the prior corresponding period have been re-presented to conform to the current period's presentation.

Appendix

Large-scale generation certificate shortfall

Supply and demand for large-scale generation certificates (LGCs) is driven by the rate of new renewable projects coming online as well as the compliance obligations under the Large-scale Renewable Energy Target (LRET). Renewable project delays and generation curtailments have led to a near-term tightening of the LGC market; however, it is expected that the 33 TWh legislated target will be exceeded and longer term the market will be oversupplied.

The Clean Energy Regulator has acknowledged the option for parties to shift demand from periods of tight supply by deferring the surrender of certificates to later years. Under the scheme, parties can defer up to 10 per cent of their obligation at no additional cost and can defer more than 10 per cent by incurring a shortfall charge of \$65 per certificate that is refundable provided the LGCs are surrendered within three years.

With the forward curve in backwardation, Origin has previously elected to defer surrender of 2.5 million CY2020 certificates in February 2021 and expects to defer approximately 3.1 million CY2021 certificates in February 2022.

FY2021 impact

During FY2021, we have paid a shortfall charge of \$160 million in relation to CY2020 certificates and accrued a further \$102 million in relation to CY2021 certificates. A cost of \$64 million recognised in FY2021 Underlying Profit reflects the estimated future surrender cost, based on a weighted average of the current forward price and purchases to date of:

- ~2.5 million 2020 certificates at \$19/certificate; and
- ~1.6 million 2021 certificates at \$12/certificate (estimate for the first half of CY2021).

The balance of \$198 million is excluded from Underlying Profit.

FY2022 impact

Subject to changes in volume and forward price estimates, we expect to incur a further \$102 million in relation to the shortfall charge for the second half of CY2021. A cost of \$18 million will be recognised in FY2022 Underlying Profit. The balance of \$84 million will be excluded from Underlying Profit.

The shortfall charge is non-deductible for tax purposes. The refund is currently tax assessable; however, legislative change is before Parliament which would make refunds non-assessable (such that it is aligned to treatment of the shortfall charge).

	Statutory Profit (\$m)	Adjustment (\$m)	Underlying Profit (\$m)
<i>CY2020 and CY2021 certificate shortfall recorded in FY2021</i>			
Shortfall charge (~4.1 million certificates x \$65) - \$160 million paid; \$102 million accrued	(262)	262	-
Expected surrender cost (~2.5 million CY2020 certificates x \$19)	-	(46)	(46)
Expected surrender cost (~1.6 million CY2021 certificates x \$12)	-	(18)	(18)
Total FY2021 impact	(262)	198	(64)
<i>Remaining CY2021 certificate shortfall (incurred in FY2022)</i>			
Shortfall charge accrued (~1.6 million certificates x \$65)	(102)	102	-
Expected surrender cost (~1.6 million certificates x \$12)	-	(18)	(18)
Total FY2022 impact	(102)	84	(18)
<i>CY2020 certificate surrender (incurred in FY2024)</i>			
Surrender (~2.5 million certificates x \$19)	(46)	46	-
Shortfall refund (~2.5 million certificates x \$65)	160	(160)	-
Total FY2024 impact	114	(114)	-
<i>CY2021 certificate surrender (incurred in FY2025)</i>			
Surrender (~3.1 million certificates x \$12)	(36)	36	-
Shortfall refund (~3.1 million certificates x \$65)	204	(204)	-
Total FY2025 impact	168	(168)	-
Total cost of ~5.6 million certificates	(82)	-	(82)

Directors' Report

For the year ended 30 June 2021



In accordance with the *Corporations Act 2001* (Cth), the Directors of Origin Energy Limited (Company) report on the Company and the consolidated entity Origin Energy Group (Origin), being the Company and its controlled entities for the year ended 30 June 2021.

The Operating and Financial Review and Remuneration Report form part of this Directors' Report.

1 Principal activities, review of operations and significant change in state of affairs

During the year, the principal activity of Origin was the operation of energy businesses including exploration and production of natural gas, electricity generation, wholesale and retail sale of electricity and gas, and sale of liquefied natural gas. There have been no significant changes in the nature of those activities during the year and no significant changes in the state of affairs of the Company during the year.

The Operating and Financial Review, which forms part of this Directors' Report, contains a review of operations during the year and the results of those operations, the financial position of Origin, its business strategies, and prospects for future financial years.

2 Events subsequent to balance date

Other than the matters described below, no matters or circumstances have arisen since 30 June 2021, which have significantly affected, or may significantly affect, the Company's operations, the results of those operations or the Company's state of affairs in future financial years.

On 19 August 2021, the Directors determined a final dividend of 7.5 cents per share, unfranked, on ordinary shares. The dividend will be paid on 1 October 2021.

3 Dividends

- a. Dividends paid during the year by the Company were as follows:

	\$ million
10.0 cents per ordinary share, unfranked, for the full year ended 30 June 2020, paid 2 October 2020	176
12.5 cents per ordinary share, unfranked, for the half year ended 31 December 2020, paid 26 March 2021	220

- b. In respect of the current financial year, the Directors have determined a final dividend as follows:

	\$ million
7.5 cents per ordinary share, unfranked, for the full year ended 30 June 2021, payable 1 October 2021	132

The Dividend Reinvestment Plan (DRP) will apply to this final dividend at no discount.

4 Directors and Company Secretary

The Directors of the Company at any time during or since the end of the financial year, their qualifications, experience and special responsibilities are set out on pages 6 and 7. The qualifications and experience of the Company Secretary is also set out below:

Scott Perkins
(Chairman from 20 October 2020)
Independent Non-executive Chairman

Frank Calabria
Managing Director and Chief Executive Officer

John Akehurst
Independent Non-executive Director

Ilana Atlas
(appointed 19 February 2021)
Independent Non-executive Director

Maxine Brenner
Independent Non-executive Director

Gordon Cairns
(Chairman) (retired 20 October 2020)
Independent Non-executive Director

Teresa Engelhard
(retired 20 October 2020)
Independent Non-executive Director

Greg Lalicker
Independent Non-executive Director

Mick McCormack
(appointed 17 December 2020)
Independent Non-executive Director

Bruce Morgan
Independent Non-executive Director

Steven Sargent
Independent Non-executive Director

Joan Withers
(appointed 21 October 2020)
Independent Non-executive Director

Helen Hardy
Company Secretary

Helen Hardy joined Origin in March 2010. She was previously General Manager, Company Secretariat of a large ASX-listed company, and has advised on governance, financial reporting and corporate law at PwC and Freehills. Helen is a Chartered Accountant, Chartered Secretary and a Graduate Member of the Australian Institute of Company Directors. Helen is a fellow of the Governance Institute of Australia and is the Chair of its NSW Council and a member of its Legislative Review Committee and Communication Committee. She holds a Bachelor of Laws and a Bachelor of Commerce from the University of Melbourne, a Graduate Diploma in Applied Corporate Governance and is admitted to legal practice in New South Wales and Victoria.

5 Directors' meetings

The number of Directors' meetings, including Board committee meetings, and the number of meetings attended by each Director during the financial year, are shown in the table below:

Directors	Scheduled		Additional		Audit		Health, Safety and Environment (HSE)		Nomination		Remuneration & People		Risk	
	H ¹	A ²	H	A	H	A	H	A	H	A	H	A	H	A
J Akehurst	9	9	10	10	-	-	5	5	3	3	-	-	5	5
I Atlas ³	4	4	1	1	-	-	-	-	-	-	-	-	-	-
M Brenner	9	9	10	10	5	5	-	-	3	3	2	2	5	5
G Cairns ⁴	3	3	6	6	2	2	2	2	2	2	2	2	2	2
F Calabria	9	9	10	10	-	-	5	4	-	-	-	-	-	-
T Engelhard ⁴	3	3	6	6	2	2	2	2	-	-	2	2	-	-
G Lalicker	9	9	10	10	-	-	-	-	-	-	2	2	-	-
B Morgan	9	9	10	10	5	5	5	5	3	3	-	-	5	5
M McCormack ⁵	5	5	2	2	-	-	2	2	-	-	2	2	-	-
S Perkins	9	9	10	10	5	5	5	5	2	2	4	4	5	5
S Sargent	9	9	10	10	-	-	5	5	3	3	4	4	5	5
J Withers ⁶	6	6	3	3	3	3	-	-	-	-	-	-	3	3

1 Number of meetings held during the time that the Director held office or was a member of the Committee during the year.

2 Number of meetings attended.

3 From the date of appointment on 19 February 2021.

4 Prior to the date of retirement on 20 October 2020.

5 From the date of appointment on 17 December 2020.

6 From the date of appointment on 21 October 2020.

The Board held nine scheduled meetings, including an annual strategic review and ten additional meetings to deal with urgent matters. There was also one scheduled workshop and four ad hoc committees held to consider matters of particular relevance or urgency. In addition, the Board conducted in-person and virtual visits of Company operations at various sites and met (in person and virtually) with operational management during the year.

6 Directors' interests in shares, Options and Rights

The relevant interests of each Director as at 30 June 2021 in shares, Options or Rights over such instruments issued by the companies within the consolidated entity and other related bodies corporate at the date of this report are as follows:

Director	Ordinary shares held directly and indirectly	Options over ordinary shares	Deferred Share Rights (DSR) over ordinary shares	Performance Share Rights (PSR) over ordinary shares	Restricted shares	Restricted Share Rights (RSR) over ordinary shares
J Akehurst	71,200	-	-	-	-	-
I Atlas	50,000	-	-	-	-	-
M Brenner	28,367	-	-	-	-	-
F Calabria	406,563	632,995 ¹	45,556 ²	1,075,269 ²	356,462 ²	183,414 ²
G Lalicker	100,000	-	-	-	-	-
B Morgan	47,143	-	-	-	-	-
M McCormack	100,000	-	-	-	-	-
S Perkins	56,000	-	-	-	-	-
S Sargent	41,429	-	-	-	-	-
J Withers	-	-	-	-	-	-

Exercise price for options and rights

1. 231,707: \$5.67; 401,288: \$7.37.

2. N/A.

No Director other than the Managing Director and Chief Executive Officer participates in the Company's Equity Incentive Plan.

Securities granted by Origin

Non-executive Directors do not receive Options or Rights as part of their remuneration. The following securities were granted to the five most highly remunerated officers (other than Directors) of the Company during the year ended 30 June 2021:

	Performance Share Rights	Restricted Shares	Restricted Share Rights	Matching Share Plan Rights ¹
J Briskin	60,104	123,900	60,102	518
G Jarvis	61,438	111,258	61,440	518
A Lucas	49,018	66,289	49,017	-
M Schubert ²	61,438	130,616	61,440	-
L Tremaine	67,916	118,650	67,917	518

1 Matching Share Plan Rights were granted in accordance with the Employee Share Plan rules and disclosed to the ASX at the time of grant. The Employee Share Plan is available to all eligible Origin employees.

2 The securities granted to Mr Schubert were all forfeited upon cessation of his employment on 30 June 2021.

The awards of Performance Share Rights, Restricted Shares, and Restricted Share Rights were made in accordance with the Company's Equity Incentive Plan as part of the relevant Executive's remuneration. Further details on Rights granted during the financial year, and unissued shares under Options and Rights, are included in Section 7 of the Remuneration Report. No Rights were granted since the end of the financial year.

No Options or Rights were granted since the end of the financial year.

Origin shares issued on the exercise of Options and Rights

Options

No Options granted under the Equity Incentive Plan were exercised during or since the year ended 30 June 2021, so no ordinary shares in Origin were issued as a result.

Rights

870,471 ordinary shares of Origin were allocated from the Origin Energy Limited Employee Share Trust during the year ended 30 June 2021 on the vesting and exercise of DSRs, PSRs and Matching Share Plan Rights granted under the Equity Incentive Plan and Employee Share Plan. No amounts were payable on the vesting of these DSRs, PSRs and Matching Share Plan Rights and, accordingly, no amounts remain unpaid in respect of any of those shares.

Since 30 June 2021, 3,719 ordinary shares of Origin were allocated from the Origin Energy Limited Employee Share Trust on the vesting of Matching Share Plan Rights granted under the Employee Share Plan.

All shares in the Origin Energy Limited Employee Share Trust were purchased on market.

7 Environmental regulation and performance

The Company's operations are subject to environmental regulation under Commonwealth, State, and Territory legislation. For the year ended 30 June 2021, regulators were notified of a total of 30 environmental reportable incidents. All of these incidents resulted in minor environmental consequences with the appropriate level of investigation undertaken. All incidents are investigated, and lessons learned captured and shared across the Company.

In FY2021, the Company received two formal environmental Clean Up Notices from a regulator arising from Origin's activities. All of the required actions set out in the Notices have been executed with final reports submitted and accepted by the Regulator. There were no fines issued in FY2021.

8 Indemnities and insurance for Directors and Officers

Under its Constitution, the Company may indemnify current and past Directors and Officers for losses or liabilities incurred by them as a Director or Officer of the Company or its related bodies corporate to the extent allowed under law. The Constitution also permits the Company to purchase and maintain a Directors' and Officers' insurance policy. No indemnity has been granted to an auditor of the Company in their capacity as auditor of the Company.

The Company has entered into agreements with current Directors and certain former Directors whereby it will indemnify those Directors from all losses or liabilities in accordance with the terms of, and subject to the limits set by, the Constitution.

The agreements stipulate that the Company will meet the full amount of any such liability, including costs and expenses to the extent allowed under law. The Company is not aware of any liability having arisen, and no claim has been made against the Company during or since the year ended 30 June 2021 under these agreements.

During the year, the Company has paid insurance premiums in respect of Directors' and Officers' liability, and legal expense insurance contracts for the year ended 30 June 2021.

The insurance contracts insure against certain liability (subject to exclusions) of persons who are or have been Directors or Officers of the Company and its controlled entities. A condition of the contracts is that the nature of the liability indemnified and the premium payable not be disclosed.

9 Auditor independence

There is no former partner or director of EY, the Company's auditors, who is or was at any time during the year ended 30 June 2021 an officer of the Origin Energy Group. The auditor's independence declaration for the financial year (made under section 307C of the *Corporations Act 2001* (Cth)) is attached to and forms part of this Report.

10 Non-audit services

The amounts paid or payable to EY for non-audit services provided during the year was \$1,873,000 (shown to the nearest thousand dollars). Amounts paid to EY are included in note G7 to the full financial statements.

Based on written advice received from the Audit Committee Chairman pursuant to a resolution passed by the Audit Committee, the Board has formed the view that the provision of those non-audit services by EY is compatible with, and did not compromise, the general standards of independence for auditors imposed by the *Corporations Act 2001* (Cth). The Board's reasons for concluding that the non-audit services provided by EY did not compromise its independence are:

- all non-audit services provided were subjected to the Company's corporate governance procedures and were either below the pre-approved limits imposed by the Audit Committee or separately approved by the Audit Committee;
- all non-audit services provided did not, and do not, undermine the general principles relating to auditor independence as they did not involve reviewing or auditing the auditor's own work, acting in a management or decision making capacity for the Company, acting as an advocate for the Company or jointly sharing risks and rewards; and
- there were no known conflict of interest situations nor any other circumstance arising out of a relationship between Origin (including its Directors and Officers) and EY which may impact on auditor independence.

11 Proceedings on behalf of the Company

The Company is not aware of any proceedings being brought on behalf of the Company, nor any applications having been made in respect of the Company under section 237 of the *Corporations Act 2001* (Cth).

12 Rounding of amounts

The Company is of a kind referred to in ASIC Corporations (Rounding in Financial/ Directors' Reports) Instrument 2016/191 dated 24 March 2016 and, in accordance with that class order, amounts in the financial report and Directors' Report have been rounded off to the nearest million dollars unless otherwise stated.

13 Remuneration

The Remuneration Report forms part of this Directors' Report.

Remuneration Report

For the year ended 30 June 2021



The Remuneration Report for the year ended 30 June 2021 (FY2021) forms part of the Directors' Report. It has been prepared in accordance with the *Corporations Act* 2001 (Cth) (the Act) and Accounting Standards, and audited as required by section 308(3C) of the Act.

Letter from the Chairman of the Remuneration and People Committee

On behalf of the Remuneration and People Committee (RPC) and the Board, I am pleased to present the Remuneration Report for FY2021.

FY2021 remuneration outcomes

FY2021 was a challenging year for many of Origin's stakeholders, particularly Origin's shareholders.

In deciding the short-term incentive outcomes for the Executive Leadership Team, the Board balanced the fall in the share price over the financial year with the achievements of the leadership team in managing the multiple impacts of COVID-19, regulatory uncertainty, the accelerated growth of renewables and still performing well against their objectives for the year. Details of the performance of the team against their objectives for the year are set out in Section 4 of this Remuneration Report.

The Board's remuneration governance followed a rigorous process to test the Short Term Incentive (STI) scorecard outcomes and decide whether it should exercise its discretion to adjust outcomes.

The STI scorecard outcomes for the year reflected:

- below-threshold performance in Energy Markets because of margin contractions following weaker commodity market prices from the pandemic and mild summer weather, exacerbated by an adverse gas price arbitration outcome;
- stretch performance in Integrated Gas due to strong field performance, portfolio optimisation and responsiveness to recovering oil market conditions;
- on-target performance for underlying earning per share (EPS) and net cash from/(used in) operating and investing activities (NCOIA), reflecting strong operational performance across our combined businesses in challenging external markets;
- above-target performance in customer and climate change performance;
- above-threshold but below-target achievement for our range of people measures. Notwithstanding a top-quartile engagement score of 74 and a 69.9 per cent of maximum result for safety, overall performance on all of the measures did not meet our robust target requirement.

The outcome for the CEO's STI scorecard was 62.2 per cent of maximum (103.7 per cent of target), driven by strong operational performance in Integrated Gas, and customer and climate change metrics. In balancing management's response and execution in an extraordinarily challenging and dynamic environment against financial results impacted by a range of headwinds, the Board and the CEO agreed this outcome should be reduced. The Board exercised its discretion and made a 25 per cent reduction to better align the result with the experience of shareholders. The Board noted that the CEO and leadership team also have significant shareholdings in the Company.

In summary, for FY2021:

- the CEO's STI outcome was 46.6 per cent of maximum (77.8 per cent of target);
- other Executive Key Management Personnel (KMP) outcomes range between 44.3 and 57.8 per cent of maximum (74.0 to 96.5 per cent of target); and
- the aggregate outcome was 50.7 per cent of maximum (84.5 per cent of target), ignoring the zero STI award for M Schubert, who forfeited his STI on resignation.

A partial vesting (35.3 per cent) of the FY2017 Long Term Incentive (LTI) grant occurred in FY2021, resulting from return on capital employed (ROCE) performance exceeding target. Further details are provided in Section 4.1 of the Remuneration Report.

FY2021 remuneration framework and levels

Fixed Remuneration and Non-executive Director fees

The annual fixed remuneration (FR) review normally conducted at year end was deferred on an organisation-wide basis. No changes to FR for Executive KMP were made for FY2021.

There were no changes to the level or structure of Non-executive Director (NEDs') fees in FY2021.

Short Term Incentive Plan

No changes were made to the Short Term Incentive Plan (STIP) architecture or opportunity levels during the year. The plan continues to be refined and developed to simplify the scorecard structure and to increase aspects of conduct and behavioural reviews.

Long Term Incentive Plan

A comprehensive assessment of the remuneration framework was undertaken during FY2020. The Board concluded from the review that the LTI Plan (LTIP) was not suited to the industry risks and opportunities inherent in Origin's business. The commodity price cycles faced by Integrated Gas coupled with the energy transition and transformation of the Energy Markets business undermined the efficacy of ROCE metrics. The LTIP was failing to meet the objectives of attraction, retention, motivation and building executive shareholding.

As advised to shareholders last year, the Board concluded that alternative models using Restricted Shares (RSs) with reduced opportunity, longer deferral periods, underpinning performance criteria and increased shareholding requirements are better suited to the Company's return and investment profile. The new Restricted Share Rights (RSRs) are considered a better structure to achieve the intended objectives.

Following the release of the FY2020 Remuneration Report, the Board engaged with major investors and proxy advisors before finalising a revised LTIP structure. Overall, the feedback strongly supported the RSR structure, but a number of stakeholders expressed a preference for an external financial performance condition, such as relative TSR (RTSR), as a part of a modified LTIP structure. Accordingly, the combined RSR and RTSR model (modified LTIP) was adopted for LTIP awards made in FY2021.

The implications of this change on executive remuneration included:

- a 33 per cent reduction in the LTIP maximum opportunity levels;
- a reduction in maximum Total Remuneration (TR) of 13.4 per cent;
- an increase in the Minimum Shareholding Requirements (MSR) for Executives;
- an extension of the deferral period from four to five years; and
- in relation only to those rights that ultimately vest, a dividend-equivalent for better alignment with shareholders.

The Board made these changes as they better reflect the investment cycle of our business. They significantly improve alignment of executive and shareholder interests in the level of reward, the increased ownership required, and the longer deferral period.

There is no change to the executive remuneration framework, including equity grant, in FY2022.

FY2022 remuneration

Following the salary freeze in FY2021, modest adjustments will be made to FR for Executive KMP from 1 July 2021 in order to maintain market competitiveness. The CEO's FR will increase by 2.7 per cent, and Other Executive KMP by an average of 2.3 per cent for FY2022, in line with adjustments for our workforce more generally.

There is no change to LTIP arrangements for the grants to be made in early FY2022.

Finally, there will be no changes to the structure or level of NED fees for FY2022.

Steven Sargent

Chairman, Remuneration and People Committee

Report structure

The Remuneration Report is divided into the following sections:

1. Key Management Personnel
2. Remuneration link with Company performance and strategy
3. Remuneration framework details
4. Company performance and remuneration outcomes
5. Governance
6. Non-executive Director fees
7. Statutory tables and disclosures

1 Key Management Personnel

The Remuneration Report discloses the remuneration arrangements and outcomes for people listed below: individuals who have been determined as KMP as defined by AASB 124 *Related Party Disclosures*. Members of the RPC are identified in the last column.

	Name	Role	Appointed	Retired	RPC
Non-executive Board	S Perkins ¹	Chairman, Independent	20-Oct-20		✓
	J Akehurst	Independent	29-Apr-09		
	I Atlas	Independent	19-Feb-21		
	M Brenner	Independent	15-Nov-13		✓
	G Lalicker	Independent	1-Mar-19		✓
	M McCormack	Independent	18-Dec-20		✓
	B Morgan	Independent	16-Nov-12		
	S Sargent	Independent	29-May-15		Chair
	J Withers	Independent	21-Oct-20		
	G Cairns	Former Chairman, Independent	23-Oct-13	20-Oct-20	
	T Engelhard	Former NED, Independent	1-May-17	20-Oct-20	
Executive	F Calabria	Chief Executive Officer (CEO)	19-Oct-16		
	L Tremaine	Chief Financial Officer (CFO)	10-Jul-17		
	J Briskin	Executive General Manager, Retail	5-Dec-16		
	G Jarvis	Executive General Manager, Energy Supply and Operations	5-Dec-16		
	M Schubert ²	Executive General Manager, Integrated Gas	1-May-17	30-Jun-21	

¹ KMP full year (appointed to the Board in September 2015 and appointed Chairman on 20 October 2020).

² KMP full year, terminated employment at close of business on 30 June 2021.

The term 'Other Executive KMP' (abbreviated as 'Other' in tables and charts) refers to Executive KMP excluding the CEO.

'Executive team' is a broader reference to the Executive Leadership Team (ELT).

2 Remuneration link with Company performance and strategy

2.1 Overview of remuneration framework

Our remuneration framework is designed to support the Company’s strategy and to reward our people for its successful execution. It is designed around three principles, summarised in the diagram below.



2.2 Behavioural assessment

Origin believes that observance of our values and behaviours and the quality of the relationships with our customers and the broader community are inextricably linked to the creation of shareholder value.

A formal behavioural assessment forms part of our performance management framework across the Company. It is based on the Behaviourally Anchored Rating Scale (BARS) methodology that assesses an individual's performance against specific examples of behaviour required for different roles and levels, rather than against generic descriptors.

This adds qualitative and quantitative information into the appraisal process. The behavioural assessment can result in incentive outcomes being adjusted up or down, within the prescribed maximum amount.

2.3 Minimum shareholding requirement for Executive KMP

A key objective of the remuneration framework is to promote employee share ownership and to encourage employees to think and act as owners. Equity is therefore a key element of remuneration, representing at least half of STI awards and the whole of LTI awards. This is supplemented by other share plan arrangements, including salary sacrifice, share purchase and matching plans (see Section 3.8).

Executive KMP are required to build and maintain a minimum shareholding in the Company. Following the introduction of the modified LTIP, the MSR will increase from the equivalent 200 per cent to 250 per cent of FR for the CEO, and from 100 per cent to 150 per cent of FR for Other Executive KMP. The changes will take effect from August 2023, which is the earliest date from which the modified LTIP can impact vesting patterns. From time to time, the Board determines the MSR as a number of shares with reference to movements in FR and share price. The MSR for FY2021 was 620,000 shares for the CEO and 130,000 for Other Executive KMP. The numeric share determinations will be reviewed during FY2022.

Until the MSR is reached, disposals are prohibited except as reasonably required to meet Employee Share Scheme taxation liabilities. Once the MSR is reached, disposals are prohibited where they would take the holding below the MSR level, except in extraordinary circumstances approved by the Board. The governance mechanism is through trading restrictions over and above any other trading restrictions that apply. Shares (restricted and unrestricted) count towards the MSR, but rights are not counted.

3 Remuneration framework details

3.1 Fixed Remuneration

FR comprises cash salary, employer contributions to superannuation and salary sacrifice benefits. It takes into account the size and complexity of the role, and the skills and experience required for success in the role.

FR is reviewed annually, but increases are not guaranteed. Roles are benchmarked to the median of corresponding roles in organisations with comparable activity and scale and with whom Origin competes for talent.¹ In the absence of special factors, new or newly promoted incumbents generally commence below this reference point and move to the median over time. FR may be positioned above this reference point where it is appropriate to reward sustained high performance, or for key talent retention purposes or where it is necessary to attract and secure key skills to fill a business-critical role. Accordingly, the median positioning may vary between approximately the 40th and 60th percentile of the reference market.

3.2 Variable Remuneration

VR comprises the total of STI and LTI:

- The **minimum** VR is zero, where no STI or LTI is awarded, or where the STI scorecard outcome is zero and LTI is not awarded or all of it fails to vest, or where discretion is exercised to reduce such awards or vesting outcomes to zero.
- The **target** VR represents the total of STI awarded at the target level, plus 50 per cent of the face value² of any LTI subject to an explicit performance hurdle, plus 100 per cent of the face value of any 'underpinned' LTI tranche (Section 3.5). In terms of the LTI component, the 'target' represents a risked or expected (probabilistic) outcome.
- The **maximum** VR is the total of STI awarded at the maximum level, plus the full face value of all LTI tranches assuming 100 per cent vesting.

3.3 Total Remuneration

TR is the sum of FR and VR.

TR at target (TRT)	=	FR	+	target VR
TR maximum (TRM)	=	FR	+	maximum VR

TRT is benchmarked to the median of equivalent TRT in the reference market, with the intention that when Origin's outcomes are at their maximum possible (i.e. TRM) they will be comparable to the top quartile of the reference TRT.

¹ The prime references are to (a) ASX-listed organisations ranked between 7 and 70 by average two-year market capitalisation (excluding foreign domiciles, listed investment companies or similar) and to (b) organisations with revenues between 40% and 250% of Origin's revenue, always including AGL, APA Group, Oil Search, Santos and Woodside.

² The face value at the date of grant is represented by the share price on the date of grant. The face value of deferred equity elements (Deferred STI, and LTI) is represented by the current share price, (present-day value) because it is not possible to predict future share prices.

3.4 FY2021 Short Term Incentive Plan details

The following is a detailed description of how the STIP operates.

Parameter	Details
Award basis	The annual performance cycle is 1 July to 30 June. Individual balanced scorecards are agreed, with shared Group objectives and targeted divisional objectives. Objectives are set across financial categories (generally 60 per cent of the weightings) and non-financial categories (generally 40 per cent). The CEO's FY2021 scorecard details and outcomes are shown in Section 4.2.
Scorecard operation	<p>Individual objectives on the scorecard are referenced to three performance levels: threshold, target and stretch (with pro-rating between each).</p> <p>Threshold performance represents the lower limit of rewardable outcome for an individual objective – one that represents a satisfactory outcome, often achieving year-on-year improvement and contribution towards delivery of annual plans but short of the target level. Threshold performance yields 20 per cent of maximum (33 per cent of target).</p> <p>Target represents the expectation for achieving robust annual plans, yielding 60 per cent of maximum.</p> <p>Stretch performance represents the delivery of exceptional outcomes well above expectations, yielding the maximum payout (corresponding to 167 per cent of target).</p>
Opportunity level	The opportunity level for FY2021 for all Executive KMP was unchanged at 100 per cent FR at target with a capped maximum of 167 per cent of FR.
Award calculation	$\text{STIP award (\$)} = \text{\$ FR (at 30 June)} \times \text{STIP opportunity (\% of FR)} \times \text{Balanced scorecard outcome (\%)} \times \text{Discretionary modifier incorporating behavioural assessment}$
Assessment	<p>Achievement and performance against each Executive's balanced scorecard is assessed annually as part of the Company's broader performance review process.</p> <p>The review includes a behavioural assessment under the BARS methodology (see Section 2.2.). Directors consider this assessment together with a broader consideration of how outcomes have been achieved, including regulatory compliance, and financial and non-financial risk management. This may lead to a modification of the formulaic scorecard outcome, downward or upward, with the opportunity maximum operating as a cap.</p>
Delivery and timing	Either 40 per cent or 50 per cent of the STI award amount is paid in cash, the lower level applicable while the Executive is yet to reach the relevant MSR level. The balance is delivered in the form of RSs that are subject to a two year deferral. Both elements are delivered in August-September following the end of the financial year. Prior to FY2018 the deferred element was delivered in the form of Deferred Share Rights (DSRs).
RS allocation	Number of RSs = Deferred STI amount divided by the 30-day volume weighted average price (VWAP) to 30 June, rounded to the nearest whole number.
Service conditions	Unless the Board determines otherwise, the whole of the STI award is forfeited if the Executive resigns or is dismissed for cause during the performance year, and any RSs held from prior awards are also forfeited if in their restriction period.

Parameter	Details
Release	RSs in respect of FY2021 STI awards will be released on the second trading day following the release of full-year financial results for FY2023, subject to the service conditions being met and the service period completed (or else as described under 'Cessation of employment' below).
Dividends	As the STI has been earned and awarded, RSs carry dividend entitlements and voting rights.
Cessation of employment	No STI award is made where the service conditions have not been met in full, except where the Board decides otherwise. Typically, such cases are limited to death, disability, redundancy or genuine retirement (good leaver circumstances). In such circumstances, an STI award in respect of the current year may be wholly in cash, and restrictions on prior RSs may be lifted.
Sourcing of RSs	The Board's practice is to purchase shares on market but it may issue shares or make the award in alternative forms, including deferred cash.
Governance and MSR	After restrictions on RSs are lifted, trading is subject to the MSR (see Section 2.3), to the Company's Dealing in Securities policy, and to the malus and clawback provisions in Section 5.3.

3.5 FY2021 Long Term Incentive Plan details

The operation of the LTIP is described below.

Parameter	Details															
Award basis	LTIP awards are conditional grants of equity that may vest in the future, subject to the meeting of performance conditions and/or underpinning criteria, and subject also to the Executive meeting service and personal conduct and performance requirements. Awards are considered annually for approximately 60 senior roles representing those having significant influence in long-term company performance.															
Opportunity and value range	<p>The LTIP opportunity level reflects the capacity of the role to influence long-term sustainable growth and performance, and is set with reference to market benchmarks (see Section 3.2). Opportunity levels are expressed in terms of the total face value of awards (i.e. not discounted for risk). In FY2021, the opportunity maximums were reduced by one-third as shown in the table below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Executive KMP</th> <th colspan="3">Face value LTIP opportunity (percentage of FR)</th> </tr> <tr> <th>Minimum</th> <th>Maximum FY2020</th> <th>Maximum FY2021</th> </tr> </thead> <tbody> <tr> <td>CEO</td> <td>0</td> <td>180</td> <td>120</td> </tr> <tr> <td>Other</td> <td>0</td> <td>120</td> <td>80</td> </tr> </tbody> </table> <p>Awards are granted at face value, between the minimum and maximum opportunity level. Prior to the determination of LTIP grants the Board considers whether there are any reasons to reduce or not make an award, but in the normal course of events awards are granted at the maximum opportunity level (given that they are subject to future performance and underpinning conditions, additional to malus and clawback processes). The value of an award is as follows:</p> <ul style="list-style-type: none"> the minimum value is zero (which will be the case if the award fails to vest, is forfeited or is not awarded); the target value represents the risked or expected value of the maximum grant, taking into account the likelihood of vesting; and the maximum value represents the present-day face value of the maximum grant, assuming that 100 per cent of the grant vests, ignoring the risks of achieving performance conditions and of the service requirements. <p>The actual or realised value of an LTIP award depends on the level of vesting and the share price at the time of vesting, neither of which can be determined in advance.</p>	Executive KMP	Face value LTIP opportunity (percentage of FR)			Minimum	Maximum FY2020	Maximum FY2021	CEO	0	180	120	Other	0	120	80
Executive KMP	Face value LTIP opportunity (percentage of FR)															
	Minimum	Maximum FY2020	Maximum FY2021													
CEO	0	180	120													
Other	0	120	80													
Vehicle, dividends and voting rights	<p>LTIP awards are delivered in the form of Share Rights. The Share Rights do not carry any dividend or voting entitlements.</p> <p>Each vested Share Right represents a right to a fully paid ordinary share (as a Restricted Share) in the Company and such additional shares equal to the value of dividends (as determined by the Board) in the period from grant to exercise on the underlying share on a reinvested basis. The terms and conditions applying to the Share Rights or RSs apply also to the dividend-equivalent amounts and shares. The Board retains a discretion to make a cash equivalent payment to settle the dividend-equivalent amount in lieu of an allocation of shares. The Share Rights are granted at no cost because they are awarded as remuneration.</p> <p>No dividend or dividend-equivalents are received by participants on share rights during a vesting period, and none on share rights that do not vest. Shares allocated upon vesting of rights (including Rights to a dividend-equivalent amount) carry the same dividend and voting rights as other shares (including while they are subject to a holding lock).</p>															
Number and type of Share Rights	<p>The total number of Share Rights to be granted is calculated by taking the face value of the award being made and dividing it by the 30-day VWAP of Origin shares to 30 June at year end, rounded to the nearest whole number.</p> <p>The award is divided into two halves, each with its own vesting conditions.</p> <p>One half of the Share Rights is awarded as Performance Share Rights (PSRs) where vesting is subject to a Relative TSR (RTSR) performance condition with a conventional vesting scale. This is the 'RTSR Tranche'.</p> <p>The other half of the Share Rights is awarded as Restricted Share Rights (RSRs) where vesting is subject to Board discretion with reference to a suite of underpinning conditions as described below. The number of RSRs will be divisible by three because this tranche is further divided into three equal parts, which vest progressively as described below.</p>															

Parameter	Details								
Vesting and release	<p>All of the Share Rights are deferred for five years.</p> <p>The RTSR Tranche vests (subject to achievement against the RTSR vesting scale) at the end of the three-year performance period, into Restricted Shares that remain under a holding lock for a further two years.</p> <p>The RSR Tranche vests (subject to Board discretion) progressively after three, four and five years. The part which vests after three years is into Restricted Shares that remain under a two-year holding lock; the part vesting after four years is locked for a further one year; and the final part vesting after five years vests into unrestricted shares.</p> <p>The vesting dates corresponding to the three, four and five year periods are determined as the second trading day after the release of the respective full year results. For FY2021 awards granted in November 2020 (following completion of the FY2020 year) these are expected to be 21 August 2023, 26 August 2024, and 25 August 2025 (Release Date).</p> <p>At all times before and after vesting, and after release from holding lock, the Share Rights, Restricted Shares and the unrestricted shares remain subject to malus and clawback provisions (Section 5.3), and may also be subject to trading restrictions arising from the Minimum Shareholding Requirement (Section 2.3) and from the Company's Dealing in Securities policy.</p>								
RTSR Tranche	<p>RTSR measures the Company's TSR performance relative to a reference group of companies assuming reinvestment of dividends, measured over three financial years with vesting deferred for a further two years. It has been chosen because it aligns Executive reward with shareholder returns. It rewards only when Origin outperforms the reference group; it does not reward overall market uplifts. The market reference group is the S&P/ASX 50¹ which, while not a perfect substitute for an investment in Origin, represents a transparent and widely understood listed group with which Origin competes for shareholders, skills and talent.</p> <p>In calculating RTSR, share prices are determined using three-month VWAPs to the start and end of the performance period.</p> <p>Vesting occurs only if Origin's TSR over the performance period ranks it higher than the 50th percentile of the group. Half of the PSRs vest on satisfying that condition, and all of the PSRs vest if Origin ranks at or above the 75th percentile. Straight-line pro-rata vesting applies between these two points.</p>								
RSR Tranche	<p>The RSR tranche complements the RTSR tranche. Unlike the RTSR tranche, which is subject to an external financial metric, the RSR Tranche is expected to vest unless there are material adverse deviations in the underlying health and performance of the Company. While the reduction in LTI opportunity level offsets the increased probability of vesting, the Board is committed to a robust assessment of a holistic suite of performance indicators to ensure that unwarranted vesting does not occur.</p> <p>The core objective of the RSR Tranche is to increase alignment between management and shareholders by more predictably building Executive share ownership which, in turn, has been locked in through increased MSR requirements. Executives are therefore exposed to the share price and market performance in a steadier manner than has been associated with boom-or-bust vesting cycles.</p> <p>The Board will determine the vesting outcome shortly before the vesting date by reference to a broad range of performance indicators that are expected to position the business for success, growth and sustainability. While the long-term share price performance will typically reflect the underlying health of the Company, the Board also considers, through these measures, whether there are any material reasons why vesting should not occur as expected (on an individual or collective basis). This process incorporates a formal People and Performance Review conducted by the full Board reviewing the CEO and each member of the Executive Leadership Team. The process includes taking feedback from: Chairs of the Health, Safety and Environment Committee, the Audit Committee and the Risk Committee; the internal auditor; the General Counsel and Executive General Manager Company Secretariat, Risk and Governance; and the Executive General Manager, People & Culture. The review considers any risk and reputation matters covering whistle-blowing, discrimination, bullying or harassment complaints; employee relations matters, and contribution to business strategy and overall performance with reference to the underpinning indicators.</p> <p>The vesting process will consider a range of performance indicators summarised below and predominantly reflect those that will be presented (with outcomes and performance trend data) in the Performance Overview tables in the annual Sustainability Report (commencing with the 2021 publication). In addition, other indicators may be considered over time.</p> <table border="1"> <thead> <tr> <th>Area</th> <th>Measures</th> </tr> </thead> <tbody> <tr> <td>Customers</td> <td>Customer base, Green Energy customers Ombudsman complaint rate Net promoter scores (strategic, interaction and episodic) Reputation (RepTrak score) Customers successfully completed Power On Hardship program</td> </tr> <tr> <td>Communities</td> <td>Regional procurement spend, Indigenous supplier spend Foundation funds distributed Employee volunteering to support local communities Landholder/community complaints</td> </tr> <tr> <td>Planet</td> <td>Emissions (Scope 1 and Scope 2), emissions intensity, total air and fugitive emissions Solar photovoltaic installations Proportion of CSG water treated, proportion of Eraring ash recycled Level of renewables and storage (percentage of owned and contracted capacity) Environmental consequence incidents</td> </tr> </tbody> </table>	Area	Measures	Customers	Customer base, Green Energy customers Ombudsman complaint rate Net promoter scores (strategic, interaction and episodic) Reputation (RepTrak score) Customers successfully completed Power On Hardship program	Communities	Regional procurement spend, Indigenous supplier spend Foundation funds distributed Employee volunteering to support local communities Landholder/community complaints	Planet	Emissions (Scope 1 and Scope 2), emissions intensity, total air and fugitive emissions Solar photovoltaic installations Proportion of CSG water treated, proportion of Eraring ash recycled Level of renewables and storage (percentage of owned and contracted capacity) Environmental consequence incidents
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Parameter	Details
	People & Culture Health and safety Total Recordable Injury Frequency Rate Serious incidents, learning incidents Process safety incidents (Tier 1 and Tier 2) Diversity and inclusion Female representation in Executive and senior leadership positions Indigenous representation and Stretch Reconciliation Action Plan progress Employee engagement Vesting decisions will be disclosed in the relevant remuneration reports, together with commentary on the rationale for those decisions in the context of performance across the totality of measures.
Service conditions and cessation of employment	Unless the Board determines otherwise, Share Rights are forfeited if the Executive resigns or is dismissed for cause prior to the end of the relevant vesting period. In 'good leaver' circumstances (typically death, disability, redundancy or genuine retirement), Share Rights remain on foot subject to their original terms and conditions (other than the continuing service condition) or may be dealt with in an appropriate manner as determined by the Board, and/or the holding lock may be lifted in whole or part.
Sourcing	The Board's preferred approach is to satisfy the vesting of Rights through the purchase of shares on market, but it may issue shares or make the award in alternative forms, including cash or deferred cash.

1 The TSR reference group is set at the commencement of the performance period. For FY2021, it comprised A2 Milk, AGL Energy, Amcor, Ampol, APA Group, Aristocrat Leisure, ASX Limited, Aurizon, ANZ Group, BHP, Brambles, Cochlear, Coles, CBA, Computershare, CSL, Dexu, Fortescue, Goodman Group, GPT Group, Insurance Australia Group, James Hardie Industries, Lendlease, Macquarie Group, Medibank Private, Mirvac, NAB, Newcrest Mining, Oil Search, Orica, Qantas, QBE, Ramsay Health Care, Rio Tinto, Santos, Scentre Group, Sonic Healthcare, South32, Stockland, Suncorp, Sydney Airport, Telstra, Transurban, Treasury Wine Estates, Vicinity Centres, Wesfarmers, Westpac, Woodside Petroleum and Woolworths. Companies are not replaced (for example as a consequence of merger, acquisition or delisting) unless the Board determines otherwise.

3.6 Remuneration cycle timelines

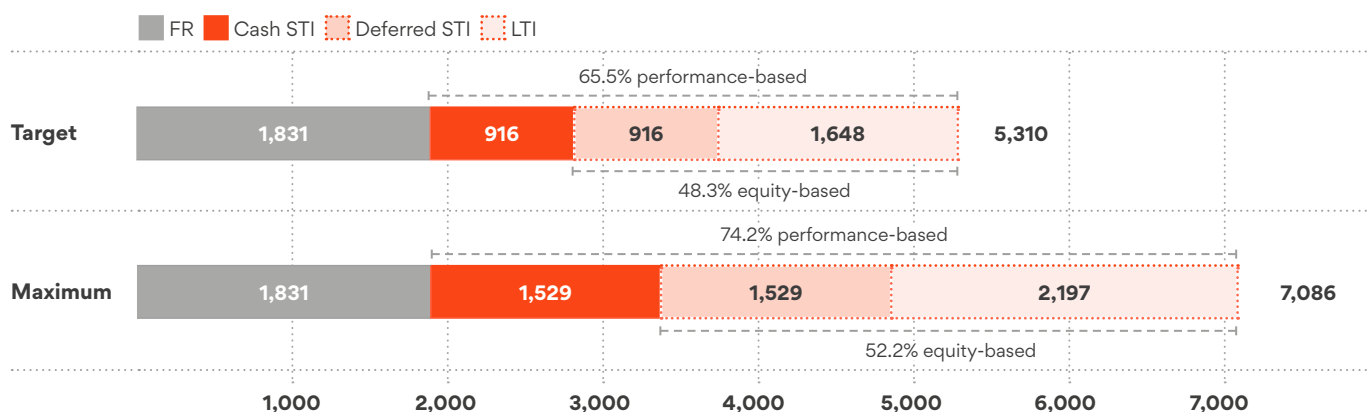
The following chart summarises the remuneration cycle and timelines, noting that the equity timelines shown are for grants to be made after the end of FY2021.

FY2021	Aug 2021	Oct 2021	Aug 2022	Aug 2023	Aug 2024	Aug 2025	Aug 2026	→
Fixed remuneration paid through year 1 July 2020– 30 June 2021								
STIP performance against annual targets 1 July 2020– 30 June 2021	Cash 40–50%	Restricted Shares allocated	2-year holding lock		MSR			
LTIP RTSR tranche (50%)	Allocation confirmed; performance period starts	Performance Share Rights granted	vest after 3 years		2-year holding lock		MSR	
RSR tranche (50%)	Allocation confirmed; review period starts	Restricted Share Rights granted	1/3 vest after 3 years		2-year holding lock		MSR	
			1/3 vest after 4 years		holding lock		MSR	
					1/3 vest after 5 years		MSR	

3.7 Remuneration range and mix

The potential range for the CEO’s remuneration in FY2021 was between a minimum of \$1.831 million (his FR) to a target of \$5.310 million and, following the reduction in LTIP opportunity, a maximum of \$7.086 million (FY2020: \$8.185 million). The remuneration mix at target and at maximum is shown in the chart below which shows the significant proportion of variable or performance-based pay and delivery in equity. Variable or performance-based pay represents 65.5 per cent of the CEO’s package at target outcomes, and 74.2 per cent at maximum outcomes. Forfeitable equity represents 48.3 per cent at target outcomes and 52.6 per cent at maximum outcomes.

CEO remuneration mix



Corresponding figures for the average remuneration mix for other Executive KMP range from \$939,000 (FR and minimum), to \$2.442 million at target and \$3.259 million at maximum. The proportion of performance-based pay is 61.5 per cent at target and 71.2 per cent at maximum, and the level of equity is 42.3 per cent at target and 47.1 per cent at maximum.

3.8 Other equity/share plans

The Company operates a universal Employee Share Plan in which all full-time and part-time employees can choose to be eligible for awards of up to \$1,000 worth of Company shares annually, or else participate in a salary sacrifice scheme to purchase up to \$4,800 in shares annually. Under the \$1,000 scheme (the General Employee Share Plan (GESPP)) shares are restricted for three years or until cessation of employment, whichever occurs first.

Under the Matching Share Plan (MSP), shares purchased under the sacrifice scheme are restricted for up to two years or until cessation of employment, whichever occurs first. For every two shares purchased under the salary sacrifice scheme within a 12-month cycle, participants are granted one matching share right at no cost. The matching share rights vest two years after the cycle began, provided that the participant remains employed by the Company at this time. Each matching share right generally entitles the participant to one fully paid ordinary share in the Company, or in certain limited circumstances a cash equivalent payment. The matching share rights do not have any performance hurdles as they have been granted to encourage broad participation in the scheme across the Company, and to encourage employee share ownership. All shares are currently purchased on market.

Directors are not eligible to participate in the above schemes, but may participate in the NED Share Acquisition Plan by sacrificing Board fees. This plan is intended to facilitate share acquisition, enabling new Directors to meet their MSR obligations. All NEDs currently meet their MSR and no shares were acquired under the scheme in FY2021.

Directors regularly assess the risk of the Company losing high-performing key people who manage core activities or have skills that are being actively solicited in the market. Where appropriate, the Board may consider the selected use of deferred payment arrangements to reduce the risk of such critical loss. From time to time, it may be necessary to offer sign-on equity to offset or mirror unvested equity, which a prospective executive must forfeit to take up employment with Origin. No retention arrangements were put in place for Executive KMP in FY2021.

4 Company performance and remuneration outcomes

This section summarises remuneration outcomes for FY2021 and provides commentary on their alignment with Company outcomes.

4.1 Five-year Company performance and remuneration outcomes

The table below summarises key financial and non-financial performance for the Company from FY2017 to FY2021, grouped and compared with short-term and long-term remuneration outcomes.

Five-year key performance metrics FY2017-21 ¹	FY17	FY18	FY19	FY20	FY21
Operational measures					
Underlying EPS (cents) ²	22.8	47.7	58.4	58.1	18.1
Net cash from/(used in) operating and investing activities (NCOIA) (\$m)	1,378	2,645	1,914	1,813	1,183
Energy Markets underlying EBITDA (\$m)	1,492	1,811	1,574	1,459	991
Integrated Gas underlying EBITDA (total operations) (\$m)	1,104	1,521	1,892	1,741	1,135
Adjusted net debt (\$m) ³	8,111	6,496	5,417	5,158	4,639
Distribution break-even (USD/barrel) ⁴	-	39	36	29	22
sNPS ⁵	(16)	(13)	(6)	2	6
TRIFR ⁶	3.2	2.2	4.5	2.6	2.7
Female representation in senior roles (%F) ⁷					
CEO-1	11.1	20.0	25.0	33.3	33.3
CEO-2	26.2	33.8	40.6	43.9	42.9
Senior leadership roles	34.0	34.2	34.4	33.9	34.6
Origin Engagement Score ⁸	58	61	61	75	74
STI award outcomes					
Percentage of maximum (%) ⁹	63.3	88.7	73.7	84.1	50.7
Return measures					
Closing share price at end of June (\$) ¹⁰	6.86	10.03	7.31	5.84	4.51
Dividends (cents per share) ¹¹	0	0	25	25	20
Annual TSR (%)	19.3	46.2	(26.1)	(17.7)	(19.7)
Three-year rolling TSR (CAGR % p.a.) ¹²	(14.2)	(2.6)	12	(8)	(20.6)
Group Statutory EBIT (\$m) ⁵	(1,746)	473	1,432	305	(1,713)
Underlying ROCE ¹³ (%)	4.9	7.7	9.1	8.8	4.5
LTI outcomes					
LTI vesting percentage (%) ¹⁴	0	0	0	0	35.3

1 Except as noted in (2) below, FY2018 and prior year financials shown are those as previously reported. They have not been restated for the presentation of certain electricity hedge premiums, which are included in underlying from FY2019, or for the reclassification of futures collateral balances to operating cash flows (previously in financing cash flows in prior periods). A restatement for these factors for FY2018 only was provided in the FY2019 Consolidated Financial Statements at note A1 Segments and in the Statement of cash flows, for indicative comparison purposes only.

2 On a continuing activities basis (excludes Lattice Energy for FY2017 and FY2018).

3 Adjusted Net Debt for FY2020 includes first recognition of lease liability (\$514 million) under AASB16.

4 Distribution break-even reported since FY2018 following commissioning of APLNG Train 2.

5 sNPS is measured at the business level and is an industry-recognised measure of customer advocacy.

6 TRIFR is the total number of injuries resulting in lost time, restricted work duties or medical treatment per million hours worked.

7 CEO-1 represents Executives reporting directly to the CEO. It has been restated to include the CEO, in line with market practice and consistent with Chief Executive Women guidance and 40:40 Vision definitions, and to align with reporting lines as at 30 June in each year. CEO-2 includes roles directly reporting to CEO-1. Senior leadership roles captures the three reporting levels below CEO and includes roles with base salaries exceeding approximately \$200,000 per annum.

8 Employee engagement is measured as a score through an annual Company-wide survey conducted independently.

9 This is the total dollar value of STI awarded for Executive KMP as a percentage of their total maximum STI. The percentage of STI forfeited is this amount subtracted from 100 per cent. The FY2021 figure excludes M Schubert, whose STI award was forfeited. If M Schubert's forfeited STI is included, the figure would reduce to 42.4%.

10 The opening share price on 1 July 2017 was \$5.75.

11 Dividends represent the interim plus final dividends determined for each financial year. For FY2021, this includes the final dividend determined on 19 August 2021 to be paid on 1 October 2021. The amounts paid within each financial year are 0c, 0c, 10c, 30c and 22.5c, respectively.

12 TSR calculations use the three-month VWAP share price to 30 June, reflecting the testing methodology for relative TSR ranking.

13 Underlying ROCE is defined in the Glossary and Interpretation.

14 LTI awards granted in FY2017 were allocated 50% to a ROCE target, which vested at a level of 70.6% on 24 August 2020, and the other 50% to a RTSR target, which failed to reach its vesting threshold at test on 30 June 2021 and was subsequently wholly forfeited.

4.2 Process for assessment of variable remuneration outcomes

The Board has adopted governing principles to apply when considering adjustments to financial measures that are used for remuneration purposes. Targets set at the beginning of the year may be subject to events materially outside the course of business and outside the control of the current management, in which case discretion may be required to vary targets or outcomes to reflect the intended purpose and/or actual results and achievements. The governing principles emphasise fairness and symmetry: fairness to shareholders and Executives, and symmetry of treatment between favourable and unfavourable events.

Specific examples in relation to the implementation of these principles in FY2021 were a reduction in the target for NCOIA to adjust for the additional investment in Octopus Energy announced in December 2020, offset by an increase to the target to account for deferred capex in Growth Assets and APLNG. The additional investment in Octopus arose after targets were set. The Board's approach was that the investment was a beneficial decision for shareholders and not one for which management be penalised, accordingly the target was reduced. In the case of the capex underspend compared to plans in place when the target was set, the approach taken was that management should not benefit from such reduced scope or deferral, accordingly the amount of the underspend was added to the target. The Board analysed outcomes with and without any adjustments, finding that net movements were minor and that no unwarranted benefit or significant disadvantage arose from the process.

The EPS and Energy Markets EBITDA scorecard measures are presented in the financial accounts in terms of underlying, which is also the starting point for consideration in setting of targets for STI purposes. Further adjustment may be made according to the governing principles. In FY2021 there was no material difference from the underlying view.

4.2.1 STI outcomes

For FY2021, the Board considered the effect and implications on the STI scorecard (Section 4.3) of the following positive and negative factors including:

- targets being set at the start of the year based on commodity price outlooks at that time;
- the impact of increased network and metering costs that cannot be recovered in regulated tariffs;
- the cumulative impact of regulatory actions by federal and state governments that limit the capacity for EBITDA growth in the Energy Markets business;
- the COVID-19 pandemic's impact on domestic and global demand; and
- management's business execution and responses to challenges.

Having regard for all these factors, advice from each of the Board committees and in consideration of shareholder experience and expectations, the Board determined that management has responded well to changing priorities and market conditions in an extraordinarily challenging and dynamic environment. Against this background, and with particular regard for the financial results, the CEO and the Board agreed to make a 25 per cent reduction to the formulaic outcome of the CEO scorecard which is provided in Section 4.3. Outcomes for all Executive KMP are provided in Section 4.3.1.

4.2.2 LTI outcomes

A partial vesting (35.3 per cent) of LTI awards granted in FY2017 occurred during the year. This was the first vesting of any LTI in nine years and resulted from above-target performance on a ROCE performance measure, which comprised half of the award.

The target for this ROCE measure was set at grant in the form of two gates, both of which need to be achieved for vesting to occur. The starting point for ROCE calculations for these gates is statutory EBIT divided by average capital employed (underlying ROCE data is presented in the Operating and Financial Review).

The first gate required that the average ROCE across the four financial years (FY2017-FY2020) equalled or exceeded the average of the four annual plan targets (which was 7.7 per cent p.a.) for any vesting to occur. The second gate required that the ROCE equalled or exceeded 9.5 per cent p.a.¹ (for 50 per cent vesting) or 11.5 per cent p.a. (for full vesting) in either the third or fourth financial year, with pro-rata vesting between those levels. An average ROCE of 8.4 per cent p.a. was achieved with 10.32 per cent recorded in FY2019, resulting in a calculated 70.6 per cent vesting for this half of the award. The Board found no reason to vary the calculation outcome. Accordingly, the vest was confirmed at the calculated level. The other half of the award was subject to a 4-year RTSR hurdle against a 'ten-up/ten-down' peer group.² At the test date of 30 June 2021, this tranche failed to achieve a ranking above that of the 50th percentile in the peer group (the vesting threshold), and it was subsequently lapsed.

¹ 9.5% was referable to pre-tax WACC and set at the time of grant. Exceeding this by 2 percentage points set the stretch or full vesting point.

² The TSR peer group constituents were disclosed in the 2017 Remuneration Report.

4.3 STI awards and scorecard details for FY2021

STI awards are calculated on the basis of a balanced scorecard using the concepts of setting requirements at threshold, target and stretch achievement levels. The CEO's FY2021 scorecard was weighted 60 per cent to financial measures and 40 per cent to non-financial metrics (customer, strategic, climate change, safety and people). The details and results are set out below.

CEO FY2021 STI scorecard

Measure, rationale and performance	Weight	Targets and outcomes			Result (% max)
		Threshold	Target	Stretch	
Origin EPS (underlying) (cps)¹ <i>Measure of Origin's earnings and profitability</i>	15%	11.8	19.3	26.8	53.6
		18.1			
Origin NCOIA (\$m) <i>Measure of effective cash flow generation</i>	10%	975	1,230	1,485	52.6
		1,183			
Energy Markets EBITDA (\$m) <i>Measure of operating performance of the Energy Markets business</i>	15%	1,050	1,230	1,410	0.0
		991			
Integrated Gas free cash flow (\$m) <i>Effective cash flow generation, measured as Integrated Gas EBITDA less capex, including share of APLNG capex (excluding impact of oil price, foreign exchange or royalty changes)</i>	10%	735	790	845	100.0
		882			
Integrated Gas value (\$m) <i>Uplift in net present value of APLNG (100% basis) over the life of the field relative to prior internal forecast (at constant oil price, foreign exchange and discount rates)</i>	10%	200	500	1,000	100.0
		1,294			
Financial measures	60%	20	60	100	55.6
		55.6			
Voice of the customer <i>Strategic, interaction and episodic net promoter scores measuring customer advocacy, recent and critical experiences</i>	10%	20	60	100	76.0
		76.0			
Customer innovation <i>Composite measure of the readiness of new customer solutions</i>	5%	20	60	100	86.6
		86.6			
Climate change (emissions reduction, %) <i>Scope 1 equity emissions reduction (CO₂-e) – short term target to reduce emissions, compared to FY2017 baseline</i>	10%	4	6	10	100.0
		11.2			
People measures <i>Employee engagement score (74%) measuring connection of the workforce to the business; female representation in senior roles and pipeline cohorts to senior roles (33.2%) measuring gender diversity; and Health, Safety and Environment measures (69.9% of maximum) measuring preventative actions, and improvements in composite measures</i>	15%	20	60	100	45.9
		45.9			
Non-financial measures	40%	20	60	100	72.1
		72.1			
Total unadjusted	100%	20	60	100	62.2
		62.2			
Total (adjusted) (discretionary adjustment 25% down)	100%	20	60	100	46.6
		46.6			

¹ The FY2021 underlying EPS target of 19.3 cents per share was lower than the prior year actual (58.1), consistent with August 2020 market guidance.

4.3.1 Executive KMP STI outcomes

The application of the discretionary downward adjustment identified in Section 4.2.1 to the CEO's scorecard balanced the high operational and customer achievements with the financial results impacted by the range of headwinds. It resulted in an STI outcome for CEO of 46.6 per cent of maximum (77.8 per cent of target).

The majority of the CEO's scorecard objectives are shared across Other Executive KMP. However, their weightings will differ according to their specific divisional metrics. Other Executive KMP scorecard outcomes were all below target and ranged between 44.3 to 57.8 per cent of maximum (74.0 to 96.5 per cent of target). M Schubert's outcome was zero as his STI award was forfeited on resignation. In the context of the team's operational execution and response to the challenging headwinds the Board concluded that the below-target outcomes were appropriate and made no further discretionary adjustments. The aggregate outcome for all Executive KMP was 50.7 per cent of maximum (84.5 per cent of target), ignoring the zero STI award for M Schubert.

Executive KMP	STI award			\$'000
	% of target	% of maximum	% forfeited	
F Calabria	77.8	46.6	53.4	1,425
L Tremaine	96.0	57.5	42.5	976
J Briskin	96.5	57.8	42.2	868
G Jarvis	74.0	44.3	55.7	681
M Schubert	0.0	0	100	0

4.4 Total pay received in FY2021

In line with general market practice, a non-AASB presentation of actual pay received in FY2021 is provided below, as a summary of real or 'take home' pay. AASB statutory remuneration is presented in Table 7-1.

(\$'000) Executive KMP	FR ¹	STI cash ²	Short term equity ³	Long term equity ⁴	Actual total pay received
F Calabria	1,831	712	961	264	3,768
L Tremaine	1,017	488	407	522	2,434
J Briskin	900	434	188	52	1,574
G Jarvis	920	341	322	82	1,665
M Schubert	920	0	190	80	1,190

1 FR is cash and superannuation received during FY2021.

2 STI cash represents 50 per cent of the FY2021 STI award, with the balance deferred into equity.

3 Short-term equity represents the value of previously awarded equity from short-term arrangements (including STIP and grants under the Employee Share Plan) that are vested or released (as relevant) during FY2021. The value is determined as the number of shares vested or released multiplied by the five-day VWAP immediately prior to the date of vest/release. This value is usually the same as the equity's taxable value to the executive. The amounts shown above relate to DSR vests and Restricted Share releases all on 24 August 2020 arising from Deferred STI arrangements, plus GESP shares released on 28 August 2020 and Matching Share Plan allocations released on 30 October 2020.

4 Long-term equity represents the value of previously awarded equity from long-term arrangements (LTIP and other arrangements with deferral periods of three or more years) that are vested or released (as relevant) during FY2021. The value is determined in the same way as described in note 3. The amounts shown all relate to vesting and releases on 24 October 2020 (being four-year ROCE LTI awards, and, for L Tremaine, 2017 sign-on awards).

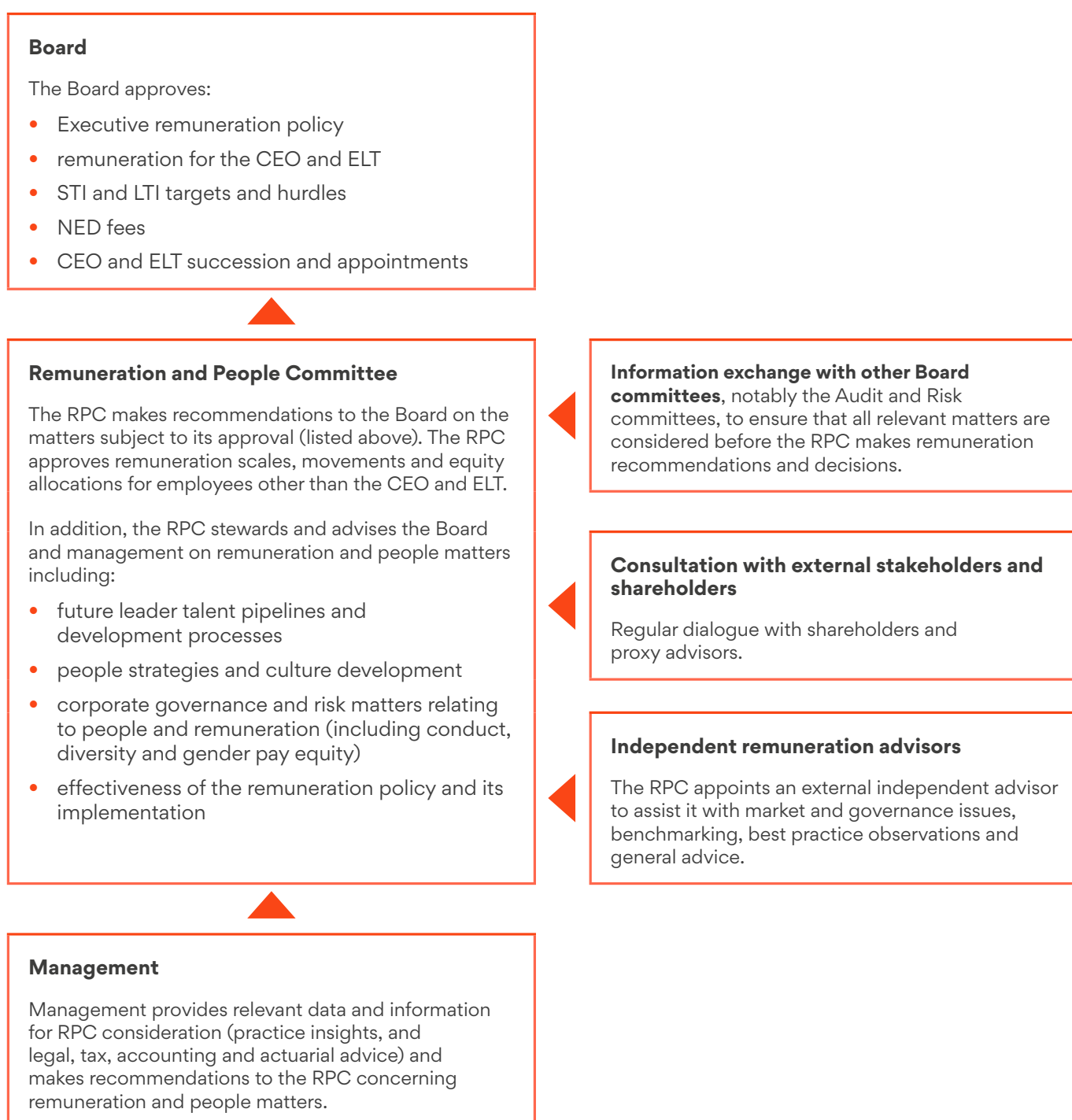
5 Governance

5.1 The role of the Remuneration and People Committee

The RPC supports the Board by overseeing Origin's remuneration policies and practices. It operates under a Charter (published on the Company's website at originenergy.com.au). The RPC met formally four times during the reporting period.

Including its Chairman, the RPC has five members, all of whom are independent NEDs (see Section 1 for details). The RPC's Charter requires a minimum of three NEDs. In addition, there is a standing invitation to all Board members to attend the RPC's meetings. Management may attend RPC meetings by invitation but a member of management will not be present when their own remuneration is under discussion.

The following diagram sets out the role of the RPC and its operational relationships with the Board, management, stakeholders and external advisors.



5.2 Remuneration advisors

The RPC engages external advisors from time to time to conduct benchmarking, advise on regulatory and market developments, and review proposals and reports. Protocols have been established for engaging and dealing with external advisors, including those defined as remuneration consultants for the purposes of the *Corporations Act 2001* (Cth) (the Act). These protocols are to ensure independence and avoid conflicts of interest.

The protocols require that remuneration advisors are directly engaged by the RPC and act on instruction from its Chairman. Reports must be delivered directly to the RPC Chairman. The advisor is prohibited from communicating with Company management except as authorised by the Chairman, and even then limited to the provision or validation of factual and policy data. The advisor must furnish a statement confirming the absence of any undue influence from management.

The RPC generally seeks information rather than specific remuneration recommendations within the definition of the Act, and this was the case during FY2021. Guerdon Associates was appointed for this period; however, it did not provide any remuneration recommendations as defined under the Act.

In addition, the RPC makes use of general market trend information from a variety of commercial and industry sources and has access to in-house remuneration professionals who provide it with guidance and analysis on request.

The recommendations that the RPC makes to the Board are based on its own independent assessment of the advice and information received from these multiple sources, using its experience and having careful regard to the principles and objectives of the remuneration framework, Company performance, shareholder and community expectations, and good governance.

5.3 Conduct, accountability and risk management

Each year the full Board formally reviews the conduct, behaviour and risk management of the CEO and each member of the Executive Leadership Team, taking feedback from the Chairs of the Health, Safety & Environment Committee, Audit Committee, and the Risk Committee; from the internal auditor; and from the General Counsel and Executive General Manager Company Secretariat, Risk and Governance; and the Executive General Manager, People & Culture. The review considers conduct, behaviour, risk and reputation matters as well as operational performance and contribution.

This process is in addition to the behavioural assessment process which forms part of the company-wide performance management framework (see Section 2.2). The Board is guided by a set of overarching principles to apply in assessing items or events that impact risk (including non-financial risk) or performance. This ensures a consistent approach to determining whether discretionary adjustments to incentive outcomes are warranted (positive or negative modification) to achieve fairness for Executives and shareholders.

In addition to this process for moderation of award outcomes the RPC and the Board have wide discretionary tools to prevent the award (or retention) of inappropriate benefits, including malus and clawback.

Malus

Malus refers to the reduction or cancellation of advised awards, or of unvested/unreleased equity or shares; or to a determination to reduce the level of vesting that would otherwise apply; or to extend the existing period of a holding lock or trading restriction.

Malus has been applied over time, both to STI formulaic outcomes and to LTI allocations, to provide better alignment of variable pay outcomes with the broader context and overall circumstances of the Company.

Clawback

Clawback is a reference to the recovery of benefits after they have been paid, vested or released. The Board has power to exercise clawback to recover or cancel shares arising from equity awards, and to recover cash proceeds from the sale of such shares, or to recover cash awards. Recovery may be limited by law or regulation. There have been no circumstances to date in which the Board has sought to apply clawback.

Fraud, dishonesty, gross misconduct, negligence, breach of duties and other serious matters would have consequences additional to the sanctions and provisions referred to above.

5.4 Change of control

The Board may determine that all or a specified number of unvested securities will vest or cease to be subject to restrictions where there is a change of control event.

5.5 Capital reorganisation

On a capital reorganisation, the number of unvested share rights and Options held by participants may be adjusted in a manner determined by the Board, to minimise or eliminate any material advantage or disadvantage to the participant. If new awards are granted, they will, unless the Board determines otherwise, be subject to the same terms and conditions as the original awards.

6 Non-executive Director fees

6.1 Remuneration policy and structure for Non-executive Directors

NED remuneration comprises fixed fees with no incentive-based payments. This ensures that NEDs are able to independently and objectively assess both Executive and Company performance.

Board and committee fees take into account market rates for similar positions at relevant Australian organisations (those of comparable size and complexity) and fairly reflect the time commitments and responsibilities involved. The aggregate cap for overall NED remuneration remains at \$3.2 million p.a., as approved by shareholders in 2017.

The Origin Chairman receives a single fee that includes committee activities, while other NEDs receive a NED Base Fee and separate fees for their role on specific committees (other than the Nomination Committee, which is considered within the NED Base Fee). All fees include superannuation contributions.

The table below summarises the structure and level of NED fees. No change to the fee structure or quantum is proposed for FY2022.

Office	FY2021 and FY2022 (\$'000)
Board – Chairman (inclusive of committee fees)	677
NED Base Fee (exclusive of committee fees)	196
Audit – Chairman	57
Audit – Member	29
RPC – Chairman	47
RPC – Member	23.5
HSE – Chairman	47
HSE – Member	23.5
Risk – Chairman	47
Risk – Member	23.5
Nomination – Chairman	nil
Nomination – Member	nil

6.2 Minimum shareholding requirement for Non-executive Directors

To align the interests of the Board and shareholders, NEDs are required to build and then maintain a minimum shareholding in the Company. The MSR reference for the Chairman is 200 per cent of the NED Base Fee, and for all other NEDs it is 100 per cent of the NED Base Fee. The Board sets the MSR from time to time as a number of shares determined by reference to the level and any movements in the NED Base Fee and/or the share price.¹ The numeric shareholding levels are currently set at 28,000 shares (56,000 for the Chairman) and will be redetermined during FY2022.

NEDs are expected to reach the MSR within three years of their appointment and maintain it thereafter while in office. At the date of this report, all NEDs were above the relevant MSR level. Details of NED shareholdings are included in Table 7-3.

A NED Share Plan (NEDSP) was approved by shareholders in 2018. The NEDSP is a salary sacrifice plan that allows NEDs to sacrifice up to 50 per cent of their annual NED Base Fee to acquire share rights. Each share right is a right to receive a fully-paid ordinary share in Origin, subject to the terms of the grant. The plan is intended to facilitate the acquisition of shares for new Directors to ensure they meet the obligations imposed under the MSR. As at the date of the report, and noting that all NEDs have met their MSR obligations, no share rights have been purchased and no shares allotted under the NEDSP.

¹ Generally considering the weighted average share price over the prior year

7 Statutory tables and disclosures

Table 7-1 (a) Executive KMP statutory remuneration (\$'000)

		Short term					Long term					Totals	
		FR ¹		Other ²	Cash STI ³	Leave accrual ⁴	Share based			LTI ⁶	Total accounting remuneration	At risk (%)	Share-based (%)
		Base salary ⁷	Super-annuation				PEB ¹	STI and Other ⁵	RS				
Executive Director													
F Calabria	2021	1,786	22	46	712	122	—	1,015	76	1,385	5,164	62	48
	2020	1,768	21	41	1,277	(65)	—	1,053	180	812	5,087	65	40
Other Executive KMP													
J Briskin	2021	873	22	19	434	15	2	484	0	296	2,145	57	36
	2020	806	21	15	495	25	0.6	438	9	171	1,980	56	31
G Jarvis	2021	877	22	37	341	65	2	712	0	332	2,388	58	44
	2020	820	21	34	666	72	1.7	481	10	199	2,305	59	30
M Schubert ⁸	2021	898	22	84	0	40	—	(471)	0	(369)	204	0	0
	2020	843	21	178	522	44	—	465	7	193	2,273	52	29
L Tremaine	2021	990	22	34	488	(16)	2	625	5	440	2,590	60	41
	2020	991	21	26	711	61	1.7	649	209	242	2,912	62	38
Executive total													
	2021	5,424	110	220	1,975	226	6	2,365	81	2,084	12,491	52	36
	2020	5,228	105	294	3,671	137	4	3,086	415	1,617	14,557	60	35

1 FR comprises base remuneration and superannuation (post-employment benefit, PEB).

2 Represents non-monetary benefits including insurance premiums and fringe benefits (such as car parking and expenses associated with travel).

3 STI cash represents one half of the STI award. STI cash is paid after the end of the financial year to which it relates but is allocated to the earning year. The balance of the STI award is Deferred STI.

4 Movement in leave provision over the reporting period. Negative movement indicates that leave taken during the year exceeded leave accrued during the current year.

5 Includes Deferred STI and other equity arrangements subject to continuous employment. Deferred STI is that portion of the accounting value of equity granted or to be granted (RSs and/or DSRs) under the STI plan for the current and prior periods attributable to the reporting period. In following reporting periods, the accumulated expense is adjusted for the number of instruments then expected to be released or vested. In good leaver circumstances, a bring-forward of future-period accounting expense may occur where a cessation of employment occurs before the normal vesting date.

6 LTI includes all long-term equity awards (those not pursuant to the STI Plan) and represents that portion of the accounting value of the awards made, or to be made, for the current and prior periods, which is attributable to the reporting period. See Note G3 for details on share-based remuneration accounting.

7 The increase in base salary for J Briskin, G Jarvis and M Schubert reflects a mid-year change during FY2020. No increase applied for FY2021.

8 'Other' includes accommodation benefits associated with travel from home base to the Brisbane office.

Table 7-1 (b) NEDs statutory remuneration (\$'000)

		Short term		Post-employment	Total remuneration
		Board and Committee Fees	Other ¹	Super-annuation contributions	
NEDs - current					
J Akehurst	2021	244	1	22	267
	2020	245	0.2	21	266
I Atlas ²	2021	59	0	6	65
	2020	—	—	—	—
M Brenner	2021	267	0	20	287
	2020	251	0.2	21	272
G Lalicker	2021	191	0	20	211
	2020	175	0.2	21	196
M McCormack ²	2021	112	0	11	123
	2020	—	—	—	—
B Morgan	2021	278	1	22	301
	2020	279	0.2	21	300
S Perkins	2021	529	2	22	553
	2020	274	18	21	313
S Sargent	2021	268	1	22	291
	2020	244	0.2	21	265
J Withers ²	2021	151	0	16	167
	2020	—	—	—	—
NEDs - former					
G Cairns ²	2021	217	0	10	227
	2020	666	18	11	695
T Engelhard ²	2021	84	1	7	92
	2020	239	16	21	276
NED total	2021	2,400	6	178	2,584
	2020	2,373	53	158	2,583

1 Represents non-monetary benefits including insurance premiums and fringe benefits (such as car parking and expenses associated with travel).

2 G Cairns and T Engelhard retired on 20 October 2020; J Withers, M McCormack, I Atlas appointed 21 October 2020, 18 December 2020 and 21 February 2021 respectively.

Abbreviations in tables 7-2 through 7-4

Rights

- DSR – Deferred Share Rights
- PSR – Performance Share Rights
- RSR – Restricted Share Rights
- MR – Matching Rights (under share purchase and matching rights provisions of the Matching Share Plan, see Section 3.8)

Shares

- Shares (R) – Restricted Shares (those with a specific time holding lock, in addition to any MSR requirements)
- Shares (UR) – Unrestricted Shares (but may be subject to restriction by the operation of MSR requirements)

Table 7-2 Details of equity grants made during the reporting period

Equity rights and restricted shares granted to Executive KMP during the reporting period are listed below. None of the instruments have an exercise price, and there is nil cost to recipients.

The expiry date, if applicable, is the vest date. To the extent that rights fail to meet the relevant performance conditions, they will lapse effective on the test date, which may be on or before the vest date.

	Type	Number granted	Grant Date fair value, (\$) ¹	Exercise price, (\$)	Grant date	Vest date ²	Expiry date ³
Executive Director							
F Calabria	PSR	183,416	1.37	—	3-Nov-20	21-Aug-23	21-Aug-23
	RSR	183,414	4.28	—	3-Nov-20	2023-2025	2023-2025
	Shares(R)	213,220	5.58	—	2-Sep-20	22-Aug-22	—
Other Executive KMP							
J Briskin	PSR	60,104	1.37	—	3-Nov-20	21-Aug-23	21-Aug-23
	RSR	60,102	4.28	—	3-Nov-20	2023-2025	2023-2025
	MR	518	0.47	—	25-Sep-20	31-Oct-22	—
	Shares(R)	123,900	5.58	—	2-Sep-20	22-Aug-22	—
G Jarvis	PSR	61,438	1.37	—	3-Nov-20	21-Aug-23	21-Aug-23
	RSR	61,440	4.28	—	3-Nov-20	2023-2025	2023-2025
	MR	518	0.47	—	25-Sep-20	31-Oct-22	—
	Shares(R)	111,258	5.58	—	2-Sep-20	22-Aug-22	—
M Schubert	PSR	61,438	1.37	—	3-Nov-20	21-Aug-23	21-Aug-23
	RSR	61,440	4.28	—	3-Nov-20	2023-2025	2023-2025
	Shares(R)	130,616	5.58	—	2-Sep-20	22-Aug-22	—
L Tremaine	PSR	67,916	1.37	—	3-Nov-20	21-Aug-23	21-Aug-23
	RSR	67,917	4.28	—	3-Nov-20	2023-2025	2023-2025
	MR	518	0.47	—	25-Sep-20	31-Oct-22	—
	Shares(R)	118,650	5.58	—	2-Sep-20	22-Aug-22	—

1 For MRs, the fair value is per \$1 contributed by the Executive.

2 For PSRs, the expiry date is the same as the vesting date. For RSs, the vest date refers to the date when the trading restriction is lifted.

3 Rights may expire earlier than the nominal expiry date. To the extent that they fail to meet the relevant performance conditions, they will lapse effective on the test date.

Table 7-3 (a) Details of, and movements in, equity rights and ordinary shares of the Company - Executive KMP

The following table summarises holdings and movements of rights and ordinary shares held (directly, indirectly or beneficially, including by related parties) over the reporting period (or KMP portion of the period), including grants, transactions and forfeits, by value and by number. See Table 7-4 for further details of the terms and conditions of those rights.

Type	Held at start ¹	Granted/Acquired ^{2,3}		No. vested	Exercised/Released		Forfeited/ disposed ^{4,5}	Held at end ^{6,7}	
		Number	Value (\$)		Number	Value (\$) ⁸			
Executive Director									
F Calabria	Options	632,995	0	0	0	0	0	0	632,995
	PSR	958,872	183,416	251,280	47,316	47,316	264,496	19,703	1,075,269
	RSR	0	183,414	785,012	0	0	0	0	183,414
	DSR	110,779	0	0	65,223	65,223	364,597	0	45,556
	Shares (R)	249,926	213,220	1,189,768	0	106,684	596,364	0	356,462
	Shares(UR)	187,340	219,223	0	0	0	0	0	406,563
Other Executive KMP									
J Briskin	Options	86,910	0	0	0	0	0	0	86,910
	PSR	250,886	60,104	82,342	9,368	9,368	52,367	26,289	275,333
	RSR	0	60,102	257,237	0	0	0	0	60,102
	MR	190	518	2,256	0	0	0	0	708
	Shares (R)	80,124	123,900	691,362	0	33,435	186,902	0	170,589
	Shares(UR)	64,574	43,838	0	0	0	0	0	108,412
G Jarvis	Options	164,927	0	0	0	0	0	0	164,927
	PSR	250,848	61,438	84,170	14,644	14,644	81,860	6,097	291,545
	RSR	0	61,440	262,963	0	0	0	0	61,440
	MR	509	518	2,256	319	319	1,434	0	708
	Shares (R)	199,745	111,258	620,820	0	57,249	320,022	0	253,754
	Shares(UR)	65,684	78,933	0	0	0	0	121,000	23,617
M Schubert	Options	154,160	0	0	0	0	0	154,160	0
	PSR	247,480	61,438	84,170	14,375	14,375	80,356	294,543	0
	RSR	0	61,440	262,963	0	0	0	61,440	0
	Shares (R)	85,992	130,616	728,837	0	33,717	188,478	182,891	0
	Shares(UR)	51,414	48,274	0	0	0	0	60,000	39,688
L Tremaine	Options	81,441	0	0	0	0	0	0	81,441
	PSR	314,546	67,916	93,045	17,237	17,237	96,355	7,178	358,047
	RSR	0	67,917	290,685	0	0	0	0	67,917
	DSR	76,202	0	—	76,202	76,202	425,969	0	0
	MR	509	518	2,256	319	319	1,434	0	708
	Shares (R)	167,590	118,650	662,067	0	72,500	405,275	0	213,740
	Shares(UR)	210,814	167,293	0	0	0	0	0	378,107

1 The number of instruments that held at the start/end of the reporting period.

2 Rights to equity and RSs in the Company granted to Executive KMP during the reporting period under the Equity Incentive Plan, as listed in Table 7-2. These were provided at no cost to the recipients.

3 Shares(UR) include purchases and transfers in, and shares received upon the vesting and exercise of PSRs and DSRs. For Other Executive KMP includes allotments of fully paid ordinary shares granted or acquired under the Employee Share Plan (number of shares acquired: G Jarvis: 1,035; J Briskin: 1,035; L Tremaine: 1,035). Executive Directors do not participate in the GESP or the MSP.

4 Forfeited Options and PSRs were granted in October 2015.

5 Sales and transfers out.

6 Options granted in 2016 and 2017, and PSRs granted in 2017 and 2018 failed to meet their test on 30 June 2021 and were subsequently lapsed, following which the remaining number of instruments held is as follows: Options (F Calabria: 401,288; G Jarvis: 93,219), PSRs (F Calabria: 792,280; J Briskin: 216,861; G Jarvis: 228,829; L Tremaine: 296,822).

7 Rights are automatically exercised on vesting. There were no vested Options as at the end of the period. Other than rights and RSs disclosed elsewhere in this Report, no other equity instruments, including shares in the Company, were granted to KMP during the period.

8 After vesting and after payment of any exercise price (the exercise price for DSRs is nil). The value of rights exercised is calculated as the closing market price of the Company's shares on the ASX on the date of exercise, after deducting any exercise price. The exercise price for PSRs and DSRs is nil. DSRs vesting in the period were granted on 30 August 2016 (vested 26 August 2019), 30 August 2017 (vested 10 July 2019) and 18 October 2017 (vested 26 August 2019).

Table 7-3 (b) Details of, and movements in, equity rights and ordinary shares of the Company - NEDs

	Type	Held at start ¹	Acquired ²	Disposed ³	Held at end ^{1,4}
NEDs - current⁵					
J Akehurst	Shares(UR)	71,200	0	0	71,200
I Atlas	Shares(UR)	0	50,000	0	50,000
M Brenner	Shares(UR)	28,367	0	0	28,367
G Lalicker	Shares(UR)	100,000	0	0	100,000
M McCormack	Shares(UR)	0	100,000	0	100,000
B Morgan	Shares(UR)	47,143	0	0	47,143
S Perkins	Shares(UR)	30,000	26,000	0	56,000
S Sargent	Shares(UR)	31,429	10,000	0	41,429
J Withers	Shares(UR)	0	0	0	0
NEDs - former					
G Cairns	Shares(UR)	163,660	0	0	163,660
T Engelhard ⁶	Shares(UR)	34,421	0	34,421	0

1 The number of instruments that held at the start/end of the reporting period.

2 Purchases and transfers in.

3 Sales and transfers out.

4 Rights are automatically exercised on vesting. There were no vested Options as at the end of the period. Other than rights and RSs disclosed elsewhere in this Report, no other equity instruments, including shares in the Company, were granted to KMP during the period.

5 NEDs are not issued shares under any incentive or equity plans. Acquisitions include purchases of shares on market, or pursuant to the Company's dividend reinvestment plan or the August 2015 Entitlement Offer.

6 The disposal of shares occurred post retirement.

Table 7-4 Summary of share rights outstanding

The table below lists all the share rights outstanding at 30 June 2021 that have been granted to current or former employees (including Executive Directors and Executive KMP) under equity-based incentive plans. Equity-based incentives are not granted to NEDs. No terms of equity-settled share-based transactions have been altered or modified subsequent to grant. Share rights that failed to meet their performance hurdles on test dates on or before 30 June 2021 lapsed effective on that test date.

Granted	Number Outstanding ¹	Number outstanding held by KMP	Exercise price, \$	Earliest vest date ²	Last possible expiry date ^{3,4}
Legacy Options					
30-Aug-16	1,350,898	303,415	5.67	23-Aug-21	23-Aug-21
19-Oct-16	450,000	0	5.21	23-Aug-21	23-Aug-21
30-Aug-17	81,441	81,441	7.37	23-Aug-21	23-Aug-21
30-Aug-17	821,594	180,129	7.37	22-Aug-22	23-Aug-27
18-Oct-17	401,288	401,288	7.37	22-Aug-22	23-Aug-27
PSRs					
30-Aug-17	801,123	56,948	—	23-Aug-21	
18-Oct-17	126,866	126,866	—	23-Aug-21	
10-Sep-18	1,279,914	250,929	—	23-Aug-21	
17-Oct-18	312,245	312,245	—	23-Aug-21	
30-Aug-19	1,714,271	427,590	—	22-Aug-22	
16-Oct-19	452,742	452,742	—	22-Aug-22	
3-Nov-20	983,143	372,874	—	21-Aug-23	
RSRs					
3-Nov-20	331,723	124,291	—	21-Aug-23	
3-Nov-20	331,723	124,291	—	26-Aug-24	
3-Nov-20	331,723	124,291	—	25-Aug-25	
DSRs					
18-Oct-17	45,556	45,556	—	23-Aug-21	
MRs					
27-Sep-19	206,685	1,293	—	31-Oct-21	
25-Sep-20	169,210	831	—	31-Oct-22	

1 Options and PSRs with the Earliest Vest Date of 23 Aug 2021 were tested on 30 June 2021. As they did not satisfy the vesting conditions they will lapse on 23 August 2021 in accordance with the Plan Rules: Options granted in 2016 and 2017, PSRs granted in 2017 and 2018 (TSR hurdle only, the remaining total balance of 2018 PSRs: 804,942; held by KMP:281,586).

2 The vest date for PSRs and RSRs granted since 2018 does not include the trading restriction of approximately one to two years that applies to the shares allocated on vesting.

3 Where no expiry is given, automatic exercise applies at vesting. To the extent that rights fail to meet the relevant performance conditions, they will lapse effective on the test date, which may be on or before the vest date.

4 Options with the Expiry Date of 23 Aug 2021 failed their test on 30 June 2021 and as such will lapse on 23 August 2021, in accordance with the Plan Rules.

Table 7-5 Executive service agreements

The main terms of executive service agreements at 30 June 2021 are set out in the table below.

Item	CEO	Other Executive KMP
Basis of contract	Ongoing	Ongoing
Notice period	<ul style="list-style-type: none"> • Twelve months by either party • Shorter notice may apply by agreement • No notice in defined circumstances¹ 	<ul style="list-style-type: none"> • Six months by either party • Shorter notice may apply by agreement • No notice in defined circumstances
Termination benefits for cause	Statutory entitlements only	Statutory entitlements only
Termination benefits for resignation	Notice as above or payment in lieu of notice that is not worked; current-year STI forfeited; unvested equity lapses; statutory entitlements	Notice as above or payment in lieu of notice that is not worked; current-year STI forfeited; unvested equity lapses; statutory entitlements
Termination benefits for other than resignation or cause	Notice worked (or payment in lieu of any portion not worked); pro-rata STI for the period worked (no deferral applicable); all unvested equity lapses unless held on foot in accordance with Equity Incentive Plan Rules ² ; statutory entitlements.	<p>Notice worked (or payment in lieu of any portion not worked); pro-rata STI for the period worked (no deferral applicable); all unvested equity lapses unless held on foot in accordance with Equity Incentive Plan Rules; statutory entitlements.</p> <p>For redundancy, payment in accordance with the Company's general redundancy policy of three weeks FR per year of service, with a minimum of 18 weeks and a maximum of 78 weeks.</p>
Remuneration	Remuneration is reviewed annually or as required to maintain alignment with policy and benchmarks.	Remuneration is reviewed annually or as required to maintain alignment with policy and benchmarks.

1 These circumstances include but are not limited to serious or persistent or wilful misconduct, breach of contract, or conduct likely to seriously injure the reputation of the Company.

2 For example, in cases of death, disability, genuine retirement or extraordinary circumstances, as approved by the Board.

Loans to KMP

No loans have been made, guaranteed or secured, directly or indirectly, by the Company or any of its subsidiaries, at any time throughout the year, to any KMP including to a KMP related party.

Signed in accordance with a resolution of Directors.


Scott Perkins

Chairman

Sydney, 19 August 2021

Lead Auditor's Independence Declaration



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Auditor's Independence Declaration to the Directors of Origin Energy Limited

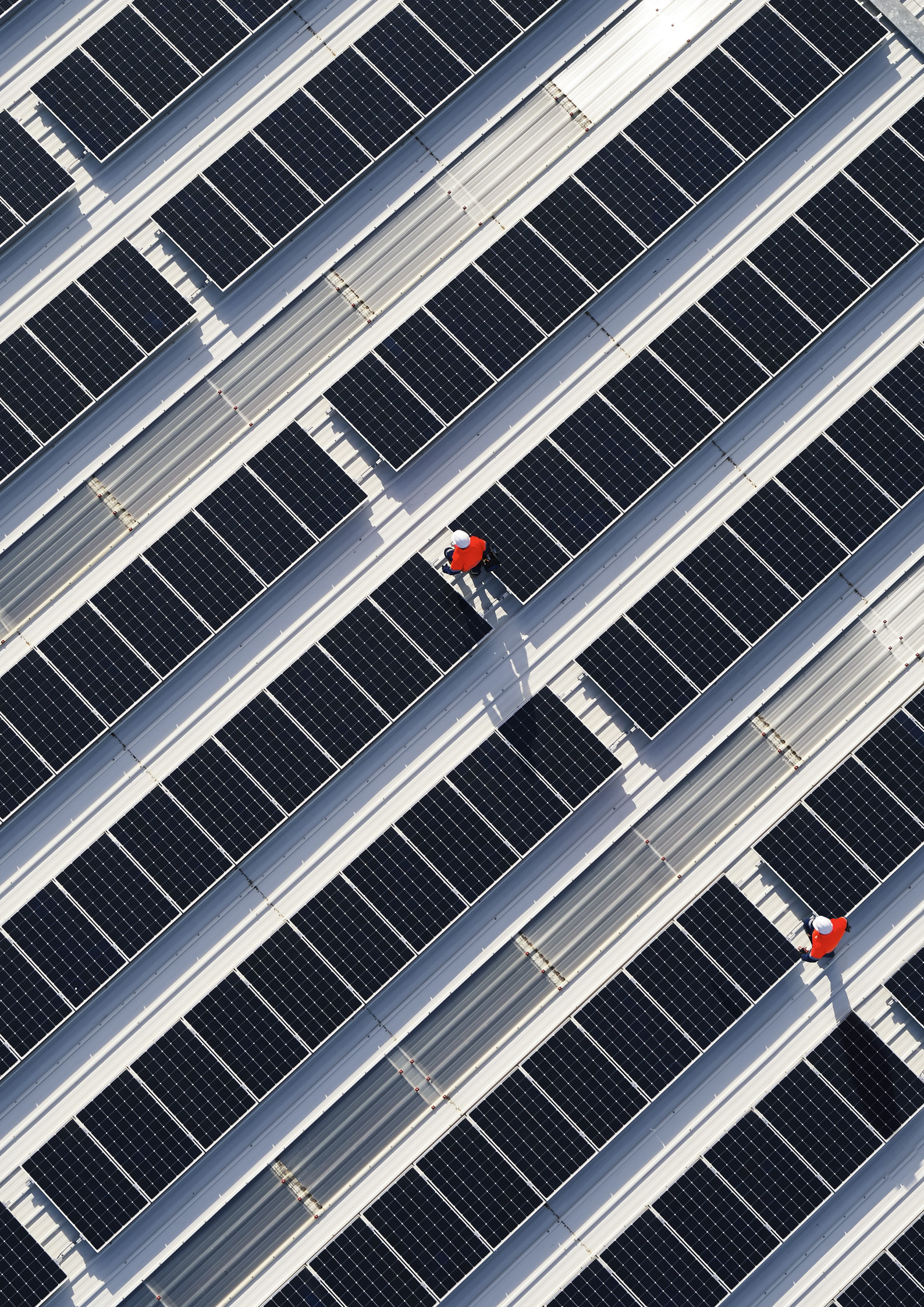
As lead auditor for the audit of the financial report of Origin Energy Limited for the financial year ended 30 June 2021, I declare to the best of my knowledge and belief, there have been:

- a) no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and
- b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Origin Energy Limited and the entities it controlled during the financial year.

Ernst & Young
Ernst & Young

Andrew Price
Partner
Sydney
19 August 2021



Financial Statements

30 June 2021



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Directors' Declaration

Independent Auditor's Report

for the year ended 30 June

	Note	2021 \$m	2020 \$m
Revenue	A2	12,097	13,157
Other income	A3	43	54
Expenses ¹	A4	(14,048)	(13,418)
Results of equity accounted investees ¹	A5	195	512
Interest income	A3	109	190
Interest expense	A4	(242)	(316)
(Loss)/profit before income tax		(1,846)	179
Income tax expense	E1	(443)	(93)
(Loss)/profit for the year		(2,289)	86
(Loss)/profit for the year attributable to:			
Members of the parent entity		(2,291)	83
Non-controlling interests		2	3
(Loss)/profit for the year		(2,289)	86
Earnings per share			
Basic earnings per share	A6	(130.2) cents	4.7 cents
Diluted earnings per share	A6	(130.2) cents	4.7 cents

1 Refer to the Overview for details of prior year reclassification.

The income statement should be read in conjunction with the notes to the financial statements.

Statement of comprehensive income

for the year ended 30 June

	Note	2021 \$m	2020 \$m
(Loss)/profit for the year		(2,289)	86
Other comprehensive income			
Items that will not be reclassified to profit or loss, net of tax			
Actuarial gain on defined benefit superannuation plan		3	-
Investment valuation changes		(6)	3
Items that can be reclassified to profit or loss, net of tax			
Translation of foreign operations		(639)	125
<i>Cash flow hedges:</i>			
Reclassified to income statement	E1	91	4
Effective portion of change in fair value	E1	356	(493)
Total other comprehensive income, net of tax		(195)	(361)
Total comprehensive income for the year		(2,484)	(275)
Total comprehensive income attributable to:			
Members of the parent entity		(2,485)	(279)
Non-controlling interests		1	4
Total comprehensive income for the year		(2,484)	(275)

The statement of comprehensive income should be read in conjunction with the notes to the financial statements.

Statement of financial position

as at 30 June

	Note	2021 \$m	2020 \$m
Current assets			
Cash and cash equivalents		472	1,240
Trade and other receivables	C1	2,298	1,959
Inventories		113	164
Derivatives	D4	769	630
Other financial assets	C7	503	479
Income tax receivable		7	89
Other assets		121	105
Total current assets		4,283	4,666
Non-current assets			
Trade and other receivables	C1	14	18
Derivatives	D4	366	528
Other financial assets	C7	1,465	2,225
Investments accounted for using the equity method	A5	6,952	7,360
Property, plant and equipment (PP&E)	C3	3,291	4,331
Exploration and evaluation assets	C2	245	190
Intangible assets	C4	4,374	5,420
Deferred tax assets	E2	-	315
Other assets		47	40
Total non-current assets		16,754	20,427
Total assets		21,037	25,093
Current liabilities			
Trade and other payables	C5	2,407	1,934
Payables to joint ventures		169	202
Interest-bearing liabilities	D2	2,004	1,401
Derivatives	D4	741	466
Other financial liabilities	C7	344	237
Employee benefits		231	234
Provisions	C6	43	163
Total current liabilities		5,939	4,637
Non-current liabilities			
Trade and other payables	C5	-	193
Interest-bearing liabilities	D2	3,224	5,451
Derivatives	D4	506	749
Other financial liabilities	C7	15	16
Deferred tax liabilities	E2	283	-
Employee benefits		36	33
Provisions	C6	1,219	1,313
Total non-current liabilities		5,283	7,755
Total liabilities		11,222	12,392
Net assets		9,815	12,701
Equity			
Contributed equity	D3	7,138	7,145
Reserves		525	716
Retained earnings		2,132	4,819
Total parent entity interest		9,795	12,680
Non-controlling interests		20	21
Total equity		9,815	12,701

The statement of financial position should be read in conjunction with the notes to the financial statements.

Statement of changes in equity

for the year ended 30 June

\$m	Contributed equity	Share-based payments reserve	Foreign currency translation reserve	Hedge reserve	Fair value reserve	Retained earnings	Non-controlling interests	Total equity
Balance as at 1 July 2020	7,145	223	860	(375)	8	4,819	21	12,701
(Loss)/profit for the year	-	-	-	-	-	(2,291)	2	(2,289)
Translation of foreign operations	-	-	(638)	-	-	-	(1)	(639)
Cash flow hedges	-	-	-	447	-	-	-	447
Investment valuation changes	-	-	-	-	(6)	-	-	(6)
Actuarial gain on defined benefit superannuation plan	-	-	-	-	3	-	-	3
Total other comprehensive income	-	-	(638)	447	(3)	-	(1)	(195)
Total comprehensive income for the year	-	-	(638)	447	(3)	(2,291)	1	(2,484)
Dividends provided for or paid	-	-	-	-	-	(396)	(2)	(398)
Movement in contributed equity (refer to note D3)	(7)	-	-	-	-	-	-	(7)
Share-based payments	-	3	-	-	-	-	-	3
Total transactions with owners recorded directly in equity	(7)	3	-	-	-	(396)	(2)	(402)
Balance as at 30 June 2021	7,138	226	222	72	5	2,132	20	9,815
Balance as at 30 June 2019	7,125	234	736	114	5	4,915	20	13,149
Adoption of AASB 16 Leases	-	-	-	-	-	349	-	349
Balance as at 1 July 2019	7,125	234	736	114	5	5,264	20	13,498
Profit for the year	-	-	-	-	-	83	3	86
Translation of foreign operations	-	-	124	-	-	-	1	125
Cash flow hedges	-	-	-	(489)	-	-	-	(489)
Investment valuation changes	-	-	-	-	3	-	-	3
Total other comprehensive income	-	-	124	(489)	3	-	1	(361)
Total comprehensive income for the year	-	-	124	(489)	3	83	4	(275)
Dividends provided for or paid	-	-	-	-	-	(528)	(3)	(531)
Movement in contributed equity (refer to note D3)	20	-	-	-	-	-	-	20
Share-based payments	-	(11)	-	-	-	-	-	(11)
Total transactions with owners recorded directly in equity	20	(11)	-	-	-	(528)	(3)	(522)
Balance as at 30 June 2020	7,145	223	860	(375)	8	4,819	21	12,701

The statement of changes in equity should be read in conjunction with the notes to the financial statements.

Statement of cash flows

for the year ended 30 June

	Note	2021 \$m	2020 \$m
Cash flows from operating activities			
Receipts from customers		12,954	14,766
Payments to suppliers and employees		(12,021)	(13,600)
Cash generated from operations		933	1,166
Income taxes received/(paid), net of refunds received		31	(215)
Net cash from operating activities	G6	964	951
Cash flows from investing activities			
Acquisition of PP&E		(124)	(290)
Acquisition of exploration and development assets		(47)	(85)
Acquisition of other assets		(168)	(125)
Acquisition of OC Energy		-	(14)
Acquisition of other investments		(161)	(151)
Interest received from other parties		3	18
Net proceeds from sale of non-current assets		7	234
<i>Australia Pacific LNG (APLNG) investing cash flows</i>			
Receipt of Mandatorily Redeemable Cumulative Preference Shares (MRCPS) interest		110	181
Proceeds from APLNG buy-back of MRCPS		599	1,094
Net cash from investing activities		219	862
Cash flows from financing activities			
Proceeds from borrowings		-	1,273
Repayment of borrowings		(1,042)	(2,446)
Joint venture operator cash call movements		(90)	56
Settlement of foreign currency contracts		(65)	(55)
Interest paid ¹		(234)	(310)
Repayment of lease principal		(76)	(75)
Dividends paid to shareholders of Origin Energy Ltd, net of Dividend Reinvestment Plan (DRP)		(341)	(475)
Dividends paid to non-controlling interests		(2)	(3)
Repayment of Debt Service Reserve Account (DSRA) loan to equity accounted investees		(3)	(8)
Purchase of shares on-market (treasury shares)		(96)	(75)
Net cash used in financing activities		(1,949)	(2,118)
Net decrease in cash and cash equivalents		(766)	(305)
Cash and cash equivalents at the beginning of the year		1,240	1,546
Effect of exchange rate changes on cash		(2)	(1)
Cash and cash equivalents at the end of the year		472	1,240

¹ Includes \$17 million (2020: \$16 million) of interest payments on leases.

The statement of cash flows should be read in conjunction with the notes to the financial statements.

Overview

Origin Energy Limited (the Company) is a for-profit company domiciled in Australia. The address of the Company's registered office is Level 32, Tower 1, 100 Barangaroo Avenue, Barangaroo NSW 2000. The nature of the operations and principal activities of the Company and its controlled entities (the Group or Origin) are described in the segment information in note A1.

On 19 August 2021, the Directors resolved to authorise the issue of these consolidated general purpose financial statements for the year ended 30 June 2021.

Basis of preparation

The financial statements have been prepared:

- in accordance with the requirements of the *Corporations Act 2001* (Cth), Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board (AASB), and International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board;
- on a historical cost basis, except for derivatives and other financial assets and liabilities that are measured at fair value; and
- on a going concern basis. As at 30 June 2021, the consolidated statement of financial position shows a net current liability position of \$1,656 million. The deficit is primarily caused by the classification of capital markets debt maturing in the next 12 months as current liabilities. Notwithstanding the net current liability position, the Group has reasonable grounds to believe it will be able to pay its debts as and when they become due, based on the continued strong cash flows of the Group's existing operations, the Group's overall net asset position, and the Group's strong financial profile, which includes significant committed undrawn bank debt facilities and cash totalling \$3,279 million.

The financial statements:

- are presented in Australian dollars;
- are rounded to the nearest million dollars, unless otherwise stated, in accordance with Australian Securities and Investments Commission (ASIC) Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191; and
- do not early adopt any Accounting Standards and Interpretations that have been issued or amended but are not yet effective.

Change to accounting policy not yet adopted - IFRIC agenda decision - Configuration or Customisation Costs in a Cloud Computing Arrangement

In April 2021, the IFRS Interpretations Committee (IFRIC) published a decision relating to configuration and customisation costs incurred in implementing Software as a Service arrangements. The Group/Company is assessing the impact of the IFRIC decision on its accounting policy, which may result in previously capitalised costs being recognised as an expense. The process to quantify the impact of the decision is ongoing, due to the effort required in obtaining the underlying information from historical records covering multiple projects, and assessing the nature of each of the costs. At the date of this report, the impact of the IFRIC agenda decision on the Group/Company is not reasonably estimable.

Use of judgements and estimates

Preparing the financial statements in conformity with Australian Accounting Standards requires management to make judgements and apply estimates and assumptions that affect the reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions, which are based on historical experience and various other factors believed to be reasonable under the circumstances, form the basis of judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. Throughout the notes to the financial statements, further information is provided about key management judgements and estimates that we consider material to the financial statements.

The Group's operating environment and COVID-19

The Group's operating environment has been impacted by a significant reduction in commodity prices as well as the COVID-19 pandemic. These factors have had wider impacts on consumers, businesses and the overall economy. The Group entered the 2021 financial year in a financially resilient position with significantly reduced upstream costs at APLNG, and materially reduced debt. This has enabled the Group to respond to the pandemic with a focus on safely maintaining energy supply and supporting customers who have been financially affected.

The economic impacts of the changes in the Group's operating environment due to commodity price and COVID-19 impacts have implications for various line

items in the financial statements, including revenue and receivables, equity accounted investments, carrying value of non-current assets, provisions, derivatives and other non-financial assets/liabilities.

Use of judgements and estimates relating to COVID-19

In the process of applying the Group's accounting policies, management has made a number of judgements and applied estimates in relation to changes in the Group's operating environment, the impact of the reduction in commodity prices and COVID-19. The judgements and estimates that are material to the financial report are discussed in the following notes:

- A2 – Revenue
- B2.2 – Summary APLNG statement of financial position
- C1 – Trade and other receivables
- C3 – Property, plant and equipment
- C4 – Intangible assets
- C6 – Provisions
- C8 – Impairment of non-current assets

Overview (continued)

Key judgements and estimates – Renewable Power Purchase Agreements (PPAs)

Management judgement has been applied on the adoption of AASB 16 *Leases* to a number of the Group's renewable PPAs. In June 2021, IFRIC published a tentative agenda decision addressing whether an agreement for the use of a windfarm provides the right to obtain substantially all the economic benefits to qualify as a lease. At the date of this report, this guidance is still a tentative decision and is open for comment. Once IFRIC has published a final decision, the Group will ensure the updated guidance is reflected in its accounting policy and financial statements.

If the PPAs had not been considered to meet the definition of a lease, net electricity derivative liabilities of \$898 million would have been recognised in the statement of financial position at 30 June 2021. A \$449 million loss would have been treated as an item excluded from underlying profit, consistent with other fair value movements.

During the year, the Group recognised an impairment of goodwill allocated to the Energy Markets Retail CGU amounting to \$830 million and the cash flows associated with the renewable PPAs are included in the calculation of the recoverable amount for the Retail CGU. Should IFRIC conclude that the PPAs are required to be classified as derivatives, this change in the Group's accounting policy will result in an income statement reclassification between impairment expense and the fair value loss related to the PPAs, representing the mark to market loss on the PPAs currently included in the \$830m impairment. This reclassification forms part of the \$449 million fair value loss noted above but will vary in quantum due to the different discount rates used in the derivative fair value and recoverable amount calculations.

Regardless of whether the Group's renewable PPAs are classified as leases, recognition and measurement of the realised component, being the amount incurred for electricity purchased during the period, is the same. Consistent with prior periods, the realised component is recognised in expenses (refer to note A4) within the income statement. To determine the value of the electricity derivatives that would be recognised were the Group's renewable PPAs not classified as leases, significant management judgement is required to estimate future generation profiles and forward electricity spot prices relative to the terms of the individual contract for periods up to 15 years.

Payments under the Group's leases of renewable power plants are entirely variable as they depend on the amount of energy produced in each period. Accordingly, such leases have nil lease liability balances and thus nil right-of-use asset balances. All payments made under these leases are recognised within operating expenses as incurred.

Reclassifications

At the date of signing the 30 June 2020 Group consolidated financial statements, the APLNG financial statements had not yet been finalised. The Group recorded an impairment of \$746 million in relation to its equity accounted investment in APLNG, based on the Group's carrying value of its investment and its assessment of the recoverable amount. This was recorded as an impairment charge in the Group's income statement. Subsequently, the APLNG 30 June 2020 financial statements were finalised, including a US\$251 million (A\$366 million) (100 per cent APLNG) impairment charge within the joint venture. Accordingly, the Group's 30 June 2020 comparatives have been updated for this timing difference to reclassify \$96 million (37.5 per cent of \$366 million net of tax) of the impairment charge to loss from equity accounted investments. The total net impairment charge recorded by the Group has not changed.

The following disclosures have been amended to reflect the reclassification described above.

- Income Statement

	2020 \$m	Reclass- ification	Restated 2020 \$m
Revenue	13,157		13,157
Other income	54		54
Expenses	(13,514)	96	(13,418)
Results of equity accounted investees	608	(96)	512
Interest income	190		190
Interest expense	(316)		(316)
Profit before income tax	179		179
Income tax expense	(93)		(93)
Profit for the year	86		86

Overview (continued)

- Note A1 Segments

	Share of APLNG			Integrated Gas		
	2020 \$m	Reclass- ification	Restated 2020 \$m	2020 \$m	Reclass- ification	Restated 2020 \$m
External revenue	-	-	-	269	-	269
EBITDA	1,915	(137)	1,778	(1,185)	96	(1,089)
Depreciation and amortisation	-	-	-	(29)	-	(29)
Share of ITDA of equity accounted investees	(1,301)	41	(1,260)	5	-	5
EBIT	614	(96)	518	(1,209)	96	(1,113)
Interest income	-	-	-	174	-	174
Interest expense	-	-	-	-	-	-
Income tax expense	-	-	-	-	-	-
Non-controlling interests (NCI)	-	-	-	-	-	-
Statutory profit/(loss) attributable to members of the parent entity	614	(96)	518	(1,035)	96	(939)
Reconciliation of statutory profit/(loss) to segment underlying profit/(loss)						
Fair value and foreign exchange movements	-	-	-	384	-	384
Disposals, impairments, business restructuring and other	-	(96)	(96)	(1,396)	96	(1,300)
Tax and NCI on items excluded from underlying profit	-	-	-	-	-	-
Total significant items	-	(96)	(96)	(1,012)	96	(916)
Segment underlying profit/(loss)	614	-	614	(23)	-	(23)
Underlying EBITDA	1,915	-	1,915	(174)	-	(174)

- Note A4 Expenses

- Note A5 Results of equity accounted investees - APLNG

- Note B2.1 Summary APLNG income statement - Origin's share

- Note B2.2 Summary APLNG statement of financial position

- Note E1 Income tax expense

- Note G6 Notes to the statement of cash flows

- Note G9 Deed of Cross Guarantee

A Results for the year

This section highlights the performance of the Group for the year, including results by operating segment, income and expenses, results of equity accounted investees, earnings per share and dividends.

A1 Segments

The Group's operating segments are presented on a basis that is consistent with the information provided internally to the Managing Director, who is the chief operating decision maker. This reflects the way the Group's businesses are managed, rather than the legal structure of the Group.

The reporting segments are organised according to the nature of the activities undertaken and are detailed below.

- **Energy Markets:** Energy retailing and wholesaling, power generation and LPG operations predominantly in Australia. Also includes Origin's investment in Octopus Energy Holdings Limited (Octopus Energy).
- **Integrated Gas:** Origin's investment in APLNG, growth opportunities and management of LNG hedging and trading activities. For greater transparency, the investment in APLNG is presented separately from the residual component of the segment in the following disclosures.
- **Corporate:** Various business development and support activities that are not allocated to operating segments.

Underlying profit and underlying EBITDA are non-statutory (non-IFRS) measures. The objective of measuring and reporting underlying profit and underlying EBITDA is to provide a more meaningful and consistent representation of financial performance by removing items that distort performance or are non-recurring in nature.

Items excluded from the calculation of underlying profit are reported to the Managing Director as not representing the underlying performance of the business and thus are excluded from underlying profit or underlying EBITDA. These items are determined after consideration of the nature of the item, the significance of the amount and the consistency in treatment from period to period.

The nature of items excluded from underlying profit and underlying EBITDA are:

- Changes in the fair value of financial instruments not in accounting hedge relationships, to remove the significant volatility caused by timing mismatches in valuing financial instruments and the related underlying transactions. The valuation changes are subsequently recognised in underlying earnings when the underlying transactions are settled;
- Realised and unrealised foreign exchange gains/losses on debt held to hedge USD-denominated APLNG MRCPS, for which fair value changes are excluded from underlying profit;
- Redundancies and other costs in relation to business restructuring, transformation or integration activities;
- Gains/losses on the sale or acquisition of an asset/entity;
- Transaction costs incurred in relation to the sale or acquisition of an entity;
- Impairments of assets;
- Significant onerous contracts; and
- Other significant non-recurring items.

A1 Segments (continued)

Segment result for the year ended 30 June

\$m	Ref.	Integrated Gas								Consolidated	
		Energy Markets		Share of APLNG ¹		Other ¹		Corporate		2021	2020
		2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
External revenue		11,931	12,888	-	-	166	269	-	-	12,097	13,157
EBITDA		(1,074)	1,521	1,145	1,778	(389)	(1,089)	113	(134)	(205)	2,076
Depreciation and amortisation		(518)	(477)	-	-	(30)	(29)	(2)	(3)	(550)	(509)
Share of ITDA of equity accounted investees		(41)	(7)	(921)	(1,260)	4	5	-	-	(958)	(1,262)
EBIT		(1,633)	1,037	224	518	(415)	(1,113)	111	(137)	(1,713)	305
Interest income ²						106	174	3	16	109	190
Interest expense ³								(242)	(316)	(242)	(316)
Income tax expense ⁴								(443)	(93)	(443)	(93)
Non-controlling interests (NCI)								(2)	(3)	(2)	(3)
Statutory profit/(loss) attributable to members of the parent entity		(1,633)	1,037	224	518	(309)	(939)	(573)	(533)	(2,291)	83
Reconciliation of statutory profit/(loss) to segment result and underlying profit/(loss)											
Fair value and foreign exchange movements	(a)	(1)	83	-	-	(556)	384	187	(73)	(370)	394
Disposals, impairments, business restructuring and other	(b)	(2,064)	(20)	-	(96)	176	(1,300)	4	(2)	(1,884)	(1,418)
Tax and NCI items excluded from underlying profit								(355)	84	(355)	84
Total significant items		(2,065)	63	-	(96)	(380)	(916)	(164)	9	(2,609)	(940)
Segment underlying profit/(loss)		432	974	224	614	71	(23)	(409)	(542)	318	1,023
Underlying EBITDA^{5,6}		991	1,459	1,145	1,915	(10)	(174)	(78)	(59)	2,048	3,141

1 Refer to the Overview for details of prior year restatements in the IG - Share of APLNG and IG - Other segment.

2 Interest income earned on MRCPS has been allocated to the Integrated Gas - Other segment.

3 Interest expense related to general financing is allocated to the Corporate segment.

4 Income tax expense for entities in the Origin tax consolidated group is allocated to the Corporate segment.

5 Underlying profit and underlying EBITDA are non-statutory (non-IFRS) measures.

6 Underlying EBITDA equals segment result and underlying profit/(loss) adjusted for: depreciation and amortisation; share of ITDA of equity accounted investees; interest income/(expense); income tax expense; and NCI.

A1 Segments (continued)**Segment result for the year ended 30 June**

\$m	2021		2020	
	Gross	Tax and NCI	Gross	Tax and NCI
(a) Fair value and foreign exchange movements				
(Decrease)/increase in fair value of derivatives	(366)	109	275	(83)
Net (loss)/gain from financial instruments measured at fair value	(163)	49	123	(37)
Exchange gain/(loss) on foreign-denominated debt	159	(47)	(4)	1
Fair value and foreign exchange movements	(370)	111	394	(119)
(b) Disposals, impairments, business restructuring and other				
Loss on sale - Horan & Bird Energy Pty Ltd	(13)	-	-	-
Disposals	(13)	-	-	-
Impairment - APLNG equity accounted investment	-	-	(650)	-
Impairment - share of APLNG	-	-	(96)	-
Impairment - Energy Markets	(1,828)	250	-	-
Impairments	(1,828)	250	(746)	-
Restructuring costs	(3)	1	(9)	3
Transaction costs	(2)	-	(13)	5
Transformation costs	(20)	6	-	-
Business restructuring	(25)	7	(22)	8
Deferred tax liability recognition - APLNG	-	(669)	-	-
LGC net shortfall charge	(198)	-	-	-
Onerous contract provision ¹	176	(53)	(650)	195
Other provision	4	(1)	-	-
Total disposals, impairments, business restructuring and other	(1,884)	(466)	(1,418)	203

¹ This amount represents the non-cash movement during the year relating to the Group's onerous contracts. Future realised gains or losses will be recognised within underlying profit. Refer to note C6.

A1 Segments (continued)

Segment assets and liabilities as at 30 June

\$m	Energy Markets		Integrated Gas				Corporate		Consolidated	
	2021	2020	Share of APLNG		Other		2021	2020	2021	2020
Assets										
Segment assets	11,182	12,567	-	-	743	687	221	214	12,146	13,468
Investments accounted for using the equity method (refer to note A5) ¹	420	381	7,315	7,766	(783)	(788)	-	1	6,952	7,360
Cash, funding-related derivatives and tax assets					1,296	2,109	643	2,156	1,939	4,265
Total assets	11,602	12,948	7,315	7,766	1,256	2,008	864	2,371	21,037	25,093
Liabilities										
Segment liabilities	(3,645)	(3,414)	-	-	(1,210)	(1,155)	(673)	(726)	(5,528)	(5,295)
Financial liabilities, interest-bearing liabilities, funding-related derivatives and tax liabilities							(5,694)	(7,097)	(5,694)	(7,097)
Total liabilities	(3,645)	(3,414)	-	-	(1,210)	(1,155)	(6,367)	(7,823)	(11,222)	(12,392)
Net assets	7,957	9,534	7,315	7,766	46	853	(5,503)	(5,452)	9,815	12,701
Additions of non-current assets	415	519	-	-	61	95	15	12	491	626

1 Refer to the Overview for details of prior year restatements in the IG - Share of APLNG and IG - Other segments.

Geographical information

Detailed below is revenue based on the location of the customer and non-current assets (excluding derivatives, other financial assets and deferred tax assets) based on the location of the assets.

for the year ended 30 June	2021 \$m	2020 \$m
Australia	12,022	13,067
Other	75	90
External revenue	12,097	13,157
as at 30 June	2021 \$m	2020 \$m
Australia	14,884	17,317
Other	39	42
Non-current assets	14,923	17,359

A2 Revenue

2021 \$m	Retail	Business and Wholesale	LPG	Solar and Energy Services	Integrated Gas	Total
Sale of electricity	4,381	2,754	-	94	-	7,229
Sale of gas	1,148	1,307	585	108	166	3,314
Pool revenue	-	1,337	-	-	-	1,337
Other revenue	35	34	4	144	-	217
Total revenue	5,564	5,432	589	346	166	12,097
2020 \$m						
Sale of electricity	4,569	2,941	-	81	-	7,591
Sale of gas	1,163	1,673	606	99	269	3,810
Pool revenue	-	1,527	-	-	-	1,527
Other revenue	45	64	2	118	-	229
Total revenue	5,777	6,205	608	298	269	13,157

The Group's primary revenue streams relate to the sale of electricity and natural gas to retail (Residential and Small to Medium Enterprises), business and wholesale customers, and the sale of generated electricity into the National Electricity Market (NEM).

Key judgements and estimates

The Group recognises revenue from electricity and gas sales once the energy has been consumed by the customer. When determining revenue for the financial period, management estimates the volume of energy supplied since a customer's last bill. The estimation of unbilled consumption requires judgement and is based on various assumptions including:

- volume and timing of energy consumed by customers;
- allocation of estimated electricity and gas volumes to various pricing plans;
- discounts linked to customer payment patterns; and
- loss factors.

Management also uses unbilled consumption volumes to accrue network expenses incurred by the Group for unread customer electricity and gas meters.

The government-imposed lockdown and social distancing restrictions in response to COVID-19 have generally resulted in increased residential household energy consumption as more people stay at home, while businesses have reduced energy consumption in certain sectors. Given the unprecedented operating environment, the calculation of unbilled revenue requires significant judgement in estimating the level of energy consumption by customers during the unbilled period to 30 June 2021. The Group uses a backcasting model and volume-matching process to provide a reliable estimate of unbilled revenue as at 30 June 2021. Refer to note C1 for the Group's consideration of the COVID-19 impact on its cash collection of trade receivables and unbilled revenue.

Retail contracts

Retail electricity service is generally marketed through standard service offers that provide customers with discounts on published tariff rates. Contracts have no fixed duration, generally require no minimum consumption, and can be terminated by the customer at any time without significant penalty. The supply of energy is considered a single performance obligation for which revenue is recognised upon delivery to customers at the offered rate. Where customers are eligible to receive additional behavioural discounts, Origin considers this to be variable consideration, which is estimated as part of the unbilled process.

Business and wholesale contracts

Contracts with business and wholesale customers are generally medium to long-term, higher-volume arrangements with fixed or index-linked energy rates that have been commercially negotiated. The nature and accounting treatment of this revenue stream is largely consistent with retail sales. Some business and wholesale sales arrangements also include the transfer of renewable energy certificates (RECs), which represent an additional performance obligation. Revenue is recognised for these contracts when Origin has the 'right to invoice' the customer for consideration that corresponds directly with the value of units of energy delivered to the customer.

Pool revenue

Pool revenue relates to sales by Origin generation assets into the NEM, as well as revenue associated with gross settled PPAs. Origin has assessed it is acting as the principal in relation to transactions with the NEM and therefore recognises pool sales on a gross basis. Revenue from these sales is recognised at the spot price achieved when control of the electricity passes to the grid.

A2 Revenue (continued)

LPG and LNG sales

Revenue from the sale of LPG (from Origin's Energy Markets segment) and LNG (from Origin's Integrated Gas segment) is recognised at the point in time that the customer takes physical possession of the commodity. Revenue is recognised at an amount that reflects the consideration expected to be received.

A3 Other income

	2021 \$m	2020 \$m
Net gain on sale of assets	-	1
Fees and services, and other income ¹	43	53
Other income	43	54
Interest earned from other parties ²	3	16
Interest earned on APLNG MRCPS (refer to note B4)	106	174
Interest income	109	190

1 This amount includes \$7 million (2020: \$39 million) relating to insurance proceeds received for the Mortlake generator asset failure in July 2019.

2 Interest income is measured using an effective interest rate method and recognised as it accrues.

A4 Expenses

	2021 \$m	2020 \$m
Cost of sales	10,261	10,732
Employee expenses ¹	643	662
Depreciation and amortisation	550	509
Impairment of non-current assets ^{2,3}	1,828	668
Impairment of trade receivables (net of bad debts recovered)	88	124
Decrease/(increase) in fair value of derivatives	366	(275)
Net loss/(gain) from financial instruments measured at fair value	163	(123)
Net loss on sale of assets ⁴	11	-
Net foreign exchange gain	(163)	(15)
Onerous contracts provision ⁵	(176)	650
Other ⁶	477	486
Expenses	14,048	13,418
Interest on borrowings	218	296
Interest on lease liabilities	17	18
Unwind of discounting on long-term provisions	7	2
Interest expense	242	316

1 Includes contributions to defined contribution superannuation funds of \$62 million (2020: \$62 million).

2 In the prior year, a \$650 million impairment (restated from \$746 million - refer to Overview) was recognised relating to the Group's equity accounted investment in APLNG, as well as a \$19 million impairment relating to the Mortlake generator asset write-off following the electrical fault experienced in July 2019. This was offset by a \$1 million impairment reversal relating to the Group's investment in PNG Energy Developments Limited joint venture.

3 Refer to note C8 for further details of the impairment during the current year.

4 The current period includes a \$13 million loss relating to the sale of Horan & Bird Energy Pty Ltd.

5 Refer to note C6.

6 Includes variable lease payments of \$103 million (2020: \$22 million), of which \$82 million (2020: \$21 million) relates to renewable power plants (refer to note D2) and \$21 million (2020: \$nil) relates to other variable leases. Also included are payments of \$5 million (2020: \$1 million) for low-value assets and short-term leases.

A5 Results of equity accounted investees

for the year ended 30 June 2021 \$m	Share of EBITDA	Share of ITDA	Share of net (loss)/profit
APLNG ^{1,2}	1,145	(917)	228
Total joint ventures	1,145	(917)	228
Octopus Energy ³	9	(41)	(32)
Gasbot Pty Limited ⁴	(1)	-	(1)
Total associates	8	(41)	(33)
Total	1,153	(958)	195
2020			
\$m			
APLNG ^{1,2,5}	1,778	(1,255)	523
Total joint ventures	1,778	(1,255)	523
Octopus Energy ³	(4)	(7)	(11)
Total associates	(4)	(7)	(11)
Total	1,774	(1,262)	512

1 APLNG's summary financial information is separately disclosed in note B2.

2 Included in the Group's share of net profit is \$4 million (2020: \$5 million) of MRCPS interest income, in line with the depreciation of the capitalised interest in APLNG's result. MRCPS interest was capitalised by APLNG during the construction period, and therefore eliminated by the Group against its equity accounted investment at that time. Refer to note B2.1.

3 The Group acquired a 20 per cent interest in Octopus Energy effective 1 May 2020. Included in the Group's share of net profit is \$18 million (2020: \$5 million) of depreciation, relating to the fair value attributed to assets at the acquisition date. Refer to note B3.

4 The Group holds a 35 per cent interest in Gasbot Pty Limited and has significant influence over the entity.

5 Refer to the Overview for details of prior year reclassification.

as at 30 June \$m	Equity accounted investment carrying amount	
	2021	2020
APLNG ¹	6,532	6,978
Octopus Energy ²	408	380
PNG Energy Developments Limited	-	1
Gasbot Pty Limited ³	1	1
Gaschem Sydney ⁴	11	-
Total	6,952	7,360

1 APLNG's summary financial information is separately disclosed in note B2.

2 Octopus Energy's summary financial information is separately disclosed in note B3.

3 The Group holds a 35 per cent interest in Gasbot Pty Limited and has significant influence over the entity.

4 During the year the Group acquired a 25 per cent interest in Gaschem Sydney and has significant influence over the entity.

A6 Earnings per share

	2021	2020
Weighted average number of shares on issue-basic ¹	1,759,555,663	1,759,801,186
Weighted average number of shares on issue-diluted ²	1,764,549,534	1,764,776,000
Statutory profit		
Earnings per share based on statutory consolidated profit		
Statutory (loss)/profit \$m	(2,291)	83
Basic earnings per share	(130.2) cents	4.7 cents
Diluted earnings per share	(130.2) cents	4.7 cents
Underlying profit		
Earnings per share based on underlying consolidated profit		
Underlying profit \$m ³	318	1,023
Underlying basic earnings per share	18.1 cents	58.1 cents
Underlying diluted earnings per share	18.0 cents	58.0 cents

1 The basic earnings per share calculation uses the weighted average number of shares on issue during the period excluding treasury shares held.

2 The diluted earnings per share calculation uses the weighted average number of shares on issue during the period excluding treasury shares held and is adjusted to reflect the number of shares that would be issued if outstanding Options, Performance Share Rights, Deferred Share Rights, Restricted Shares and Matching Share Rights were to be exercised (2021: 4,993,871; 2020: 4,974,814).

3 Refer to note A1 for a reconciliation of statutory profit to underlying consolidated profit.

A7 Dividends

The Directors have determined to pay an unfranked final dividend of 7.5 cents per share, payable on 1 October 2021. Dividends paid during the year ended 30 June are detailed below.

	2021 \$m	2020 \$m
Final unfranked dividend of 10 cents per share, in respect of FY2020, paid 2 October 2020 (2020: 15 cents per share, in respect of FY2019, fully franked at 30 per cent, paid 27 September 2019)	176	264
Interim unfranked dividend of 12.5 cents per share, in respect of FY2021, paid 26 March 2021 (2020: 15 cents per share, in respect of FY2020, fully franked at 30 per cent, paid 27 March 2020)	220	264
Total dividends provided for or paid	396	528

Dividend franking account

Franking credits available to shareholders of Origin Energy Limited for subsequent financial years are shown below.

	2021	2020
Australian franking credits available at 30 per cent	(7)	(57)
New Zealand franking credits available at 28 per cent (in NZD)	304	304

B Investment in equity accounted joint ventures and associates

This section provides information on the Group's equity accounted investments including financial information relating to APLNG and Octopus Energy.

B1 Interests in equity accounted joint ventures and associates

Joint ventures and associates	Reporting date	Country of incorporation	Ownership interest (per cent)	
			2021	2020
APLNG ¹	30 June	Australia	37.5	37.5
Octopus Energy ²	30 April	United Kingdom	20.0	20.0
PNG Energy Developments Limited	31 December	PNG	50.0	50.0
Gasbot Pty Limited	30 June	Australia	35.0	35.0
Gaschem Sydney	31 December	Germany	25.0	-
KUBU Energy Resources (Pty) Limited	30 June	Botswana	50.0	50.0

1 APLNG is a separate legal entity. Operating, management and funding decisions require the unanimous support of the Foundation Shareholders, which includes the Group and ConocoPhillips. Accordingly, joint control exists and the Group has classified the investment in APLNG as a joint venture.

2 Octopus Energy is a separate legal entity. The Group's 20 per cent investment is equity accounted as a result of the Group's active participation on the Board and the Group's ability to impact decision making, leading to the assessment that significant influence exists.

Of the above interests in joint ventures and associates, only APLNG and Octopus Energy have a material impact on the Group at 30 June 2021.

B2 Investment in APLNG

This section provides information on financial information related to the Group's investment in the equity accounted joint venture APLNG.

B2.1 Summary APLNG income statement

for the year ended 30 June \$m	2021		2020	
	Total APLNG	Origin interest	Total APLNG	Origin interest
Operating revenue	4,595		7,100	
Operating expenses	(1,544)		(1,992)	
Impairment expense ¹	-		(366)	
EBITDA	3,051	1,145	4,742	1,778
Depreciation and amortisation expense	(1,568)	(588)	(1,863)	(699)
Interest income	6	2	40	15
Interest expense – MRCPS	(282)	(106)	(463)	(174)
Other interest expense	(357)	(134)	(474)	(177)
Income tax expense ¹	(255)	(95)	(598)	(225)
ITDA	(2,456)	(921)	(3,358)	(1,260)
Statutory result for the year				
Other comprehensive income	-	-	-	-
Statutory total comprehensive income²	595	224	1,384	518
Items excluded from segment result				
Impairment ¹	-	-	256	96
Items excluded from segment result (net of tax)	-	-	256	96
Underlying profit for the year³	595	224	1,640	614
Underlying EBITDA for the year³	3,051	1,145	5,108	1,915

1 Refer to the Overview for details of prior year reclassification.

2 Excluded from the above is \$4 million (2020: \$5 million) (Origin share) of MRCPS interest income that has been recognised by Origin, in line with the depreciation of the capitalised interest in APLNG's result above. MRCPS interest was capitalised by APLNG during the construction period, and therefore eliminated by Origin against its equity accounted investment at that time. This adjustment is disclosed under the Integrated Gas - Other segment on the 'share of ITDA of equity accounted investees' line in note A1.

3 Underlying profit and underlying EBITDA are non-statutory (non-IFRS) measures.

Income and expense amounts are converted from USD to AUD using the average exchange rate prevailing for the relevant period.

B2.2 Summary APLNG statement of financial position

100 per cent APLNG as at 30 June \$m	2021	2020
Cash and cash equivalents	905	1,072
Assets classified as held for sale	24	5
Other assets	647	775
Current assets	1,576	1,852
Receivables from shareholders	335	370
PP&E ¹	31,352	35,350
Exploration, evaluation and development assets ¹	486	518
Other assets ¹	730	1,108
Non-current assets	32,903	37,346
Total assets	34,479	39,198
Bank loans – secured	681	720
Payable to shareholders (MRCPS)	-	117
Liabilities classified as held for sale	1	-
Other liabilities	588	689
Current liabilities	1,270	1,526
Bank loans – secured	7,179	8,587
Payable to shareholders (MRCPS)	3,417	5,398
Other liabilities	3,107	2,981
Non-current liabilities	13,703	16,966
Total liabilities	14,973	18,492
Net assets	19,506	20,706
Group's interest of 37.5 per cent of APLNG net assets ¹	7,315	7,766
Group's impairment expense ¹	(650)	(650)
Group's own costs	25	25
MRCPS elimination ²	(158)	(163)
Investment in APLNG Pty Ltd³	6,532	6,978

1 Refer to the Overview for details of prior year reclassification.

2 During project construction, when the Group received interest on the MRCPS from APLNG, it recorded the interest as income after eliminating a proportion of this interest that related to its ownership interest in APLNG. At the same time, when APLNG paid interest to the Group on MRCPS, the amount was capitalised by APLNG. Therefore, these capitalised interest amounts form part of the cost of APLNG's assets and these assets have been depreciated since commencement of operations. The proportion attributable to the Group's own interest (37.5 per cent) is eliminated through the equity accounted investment balance.

3 Includes a movement of \$(674) million in foreign exchange that has been recognised in the foreign currency translation reserve.

Reporting date balances are converted from USD to AUD using an end-of-period exchange rate of 0.7516 (2020: 0.6862).

Key judgements and estimates

The carrying amount of the Group's equity accounted investment in APLNG is reviewed at each reporting date to determine whether there is any indication of impairment. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made. The Group's assessment of the recoverable amount uses a discounted cash flow methodology and considers a range of macroeconomic and project assumptions, including oil and LNG price, AUD/USD exchange rates, discount rates and costs over the asset's life.

B2.3 Summary APLNG statement of cash flows

100 per cent APLNG for the year ended 30 June \$m	2021	2020
Cash flow from operating activities		
Receipts from customers	4,808	7,321
Payments to suppliers and employees	(1,494)	(2,079)
Net cash from operating activities	3,314	5,242
Cash flows from investing activities		
Loan repaid by Origin	3	8
Loans repaid by other shareholders	-	6
Acquisition of non-current assets	-	(245)
Acquisition of PP&E	(431)	(1,001)
Acquisition of exploration and development assets	(28)	(37)
Other investing activities	8	40
Net cash used in investing activities	(448)	(1,229)
Cash flows from financing activities		
Payments relating to other financing activities	(48)	(45)
Repayment of lease principal	(45)	(80)
Payment of interest on lease liabilities	(19)	(19)
Repayment of borrowings	(672)	(731)
Payments of transaction and interest costs relating to borrowings	(263)	(382)
Payments for buy-back of MRCPS	(1,598)	(2,918)
Payments of interest on MRCPS	(293)	(480)
Net cash used in financing activities	(2,938)	(4,655)
Net decrease in cash and cash equivalents	(72)	(642)
Cash and cash equivalents at the beginning of the year	1,072	1,610
Effect of exchange rate changes on cash	(95)	104
Cash and cash equivalents at the end of the year	905	1,072

Cash flow amounts are converted from USD to AUD using the exchange rate that approximates the actual rate on the date of the cash flows.

B3 Investment in Octopus Energy Holdings Limited

Octopus Energy is an energy retailer and technology company incorporated in the United Kingdom and is not publicly listed. The investment in Octopus Energy enables the Group to adopt Octopus Energy's market-leading operating model and customer platform, Kraken, to fast-track material improvements in customer experience and costs. During the year, the Group committed an additional investment of £36 million to maintain its 20 per cent interest. Refer to note B4 for further details.

The following table summarises the financial information of Octopus Energy, as included in its financial statements, adjusted for differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group's interest in Octopus Energy. The information for FY2020 includes the results of Octopus Energy from 1 May to 30 June 2020, following the acquisition of the 20 per cent equity stake.

Summary Octopus Energy income statement for the year ended 30 June \$m	2021		2020	
	Total Octopus Energy	Origin interest	Total Octopus Energy	Origin interest
Operating revenue	3,907	-	349	-
Statutory and underlying result for the year	(72)	(14)	(32)	(6)
Other comprehensive income	-	-	-	-
Statutory total comprehensive income¹	(72)	(14)	(32)	(6)

1 Excluded from the above is \$18 million (2020: \$5 million) (Origin share) of amortisation relating to the fair value attributed to assets at the acquisition date.

Income statement amounts are converted from GBP to AUD using the average rate prevailing for the relevant period.

Summary Octopus Energy statement of financial position as at 30 June \$m	2021	2020
	Current assets ¹	1,317
Non-current assets	331	163
Current liabilities ²	(1,323)	(852)
Non-current liabilities ²	-	(197)
Net assets	325	154
Group's interest of 20 per cent of Octopus Energy net assets	65	31
Goodwill and fair value adjustments ³	337	344
Group's own costs	6	5
Group's carrying amount of the investment in Octopus Energy⁴	408	380

1 Current assets includes cash and cash equivalents of \$233 million (2020: \$113 million).

2 Includes current financial liabilities and non-current financial liabilities of \$306 million (2020: \$237 million) and \$Nil million (2020: \$197 million) respectively.

3 Includes goodwill and other fair value adjustments on initial recognition of the Group's equity accounted investment in Octopus Energy.

4 Includes a movement of \$48 million related to an additional investment during the year and \$12 million related to foreign exchange that has been recognised in the foreign currency translation reserve (2020: \$21 million).

Reporting date balances are converted from GBP to AUD using an end-of-period exchange rate of 0.5428 (2020: 0.5584).

The associate has no contingent liabilities or capital commitments as at 30 June 2021.

B4 Transactions between the Group and equity accounted investees

APLNG

Service transactions

The Group provides services to APLNG including corporate services, upstream operating services related to the development and operation of APLNG's natural gas assets, and marketing services relating to coal seam gas (CSG). The Group incurs costs in providing these services and charges APLNG for them in accordance with the terms of the contracts governing those services.

Commodity transactions

Separately, the Group has entered agreements to purchase gas from APLNG (2021: \$354 million; 2020: \$339 million) and sell gas to APLNG (2021: \$7 million; 2020: \$32 million). At 30 June 2021, the Group's outstanding payable balance for purchases from APLNG was \$55 million (2020: \$33 million) and outstanding receivable balance for sales to APLNG was \$7 million (2020: \$1 million).

Funding transactions

The Group has invested in USD MRCPS issued by APLNG. The MRCPS are the mechanism by which the funding for the CSG to LNG Project has been provided by the shareholders of APLNG in proportion to their ordinary equity interests. The MRCPS have a 6.37 per cent fixed-rate dividend obligation based on the relevant observable market interest rates and estimated credit margin at the date of issue. Dividends are paid twice per year and recognised as interest income as they accrue (refer note A3). During the year Origin's share of the MRCPS balance reduced to US\$963 million following APLNG share buy-backs of US\$456 million. The mandatory redemption date for the MRCPS is 30 June 2026.

The MRCPS are measured at fair value through profit and loss in Origin's financial statements as disclosed in note C7. The carrying value was \$1,296 million as at 30 June 2021 (2020: \$2,109 million) reflecting the Group's view that APLNG will utilise cash flows generated from operations to redeem the MRCPS for their full issue price prior to their mandatory redemption date. In APLNG's financial statements the related liability is carried at amortised cost.

Octopus Energy

On 1 May 2020, the Group announced the acquisition of a 20 per cent equity stake in Octopus Energy for a total cash consideration of £215 million (\$412 million), of which £65 million was paid prior to 30 June 2020 and £150 million was deferred over two financial years. The Group has also entered into a licensing agreement for a total cash consideration of £25 million, of which £5 million was paid prior to 30 June 2020 and £20 million was deferred over two financial years. During the year, the Group paid £50 million (\$95 million) to Octopus Energy in respect of the deferred consideration payable under the equity purchase agreement. A further £20 million (\$36 million) was also paid to Octopus Energy during the year, representing £10 million of the deferred consideration payable under the licensing agreement and an additional £10 million which became payable on achievement of certain milestones. The remaining £110 million (\$202 million) of deferred consideration is payable within the next 12 months.

On 7 January 2021, the Group committed an additional investment of £36 million (~A\$65 million) to maintain its 20 per cent equity interest, following the announcement of an agreed partnership between Octopus Energy and Tokyo Gas. Subsequently, the Group has paid £27 million (\$48 million) in March 2021 as a result of relevant completions being satisfied. The remaining £8.7 million (\$16 million) is contingent in nature and will only become payable upon achievement of agreed milestones and is therefore not included in the deferred consideration balance as of 30 June 2021.

During the year, Octopus Energy utilised the remaining available tranche of a working capital facility, for which the Group has provided a financial guarantee to Octopus Energy's financiers, in accordance with the agreement entered into with Octopus Energy in the prior year. During the year, \$8 million (2020: \$1 million) has been recognised within other income in respect of the financial guarantee income.

C Operating assets and liabilities

This section provides information on the assets used to generate the Group's trading performance and the liabilities incurred as a result.

C1 Trade and other receivables

The following balances are amounts due from the Group's customers and other parties.

	2021 \$m	2020 \$m
Current		
Trade receivables net of allowance for impairment	602	618
Unbilled revenue net of allowance for impairment	1,444	1,072
Other receivables	252	269
Total current	2,298	1,959
Non-current		
Trade receivables	9	8
Other receivables	5	10
Total non-current	14	18

Trade and other receivables are initially recorded at the amount billed to customers or other counterparties. Unbilled receivables represent estimated gas and electricity supplied to customers since their previous bill was issued. The carrying value of all receivables (including unbilled revenue) reflects the amount anticipated to be collected.

Key judgements and estimates

Recoverability of trade receivables: Judgement is required in determining the level of provisioning for customer debts. Impairment allowances take into account the age of the debt, historic collection trends and expectations about future economic conditions.

Unbilled revenue: Unbilled gas and electricity revenue is not collectable until customers' meters are read and invoices issued. Refer to note A2 for judgement applied in determining the amount of unbilled energy revenue to recognise.

Credit risk and collectability

The Group minimises the concentration of credit risk by undertaking transactions with a large number of customers from across a broad range of industries. Credit approval processes are in place for large customers and all customers are required to pay in accordance with agreed payment terms. Depending on the customer segment, settlement terms are generally 14 to 30 days from the date of the invoice. For some debtors, the Group may also obtain security in the form of deposits, guarantees, deeds of undertaking or letters of credit, which can be called upon if the counterparty defaults.

Debtor collectability is assessed on an ongoing basis and any resulting impairment losses are recognised in the income statement. The Group applies the simplified approach to providing for trade receivable and unbilled revenue impairment, which requires the 'expected lifetime credit losses' to be recognised when the receivable is initially recognised. To measure expected lifetime credit losses, trade receivables and unbilled revenue balances have been grouped based on shared credit risk characteristics and ageing profiles. A debtor balance is written off when recovery is no longer assessed to be possible.

With the emergence of COVID-19, the government introduced lockdowns and other restrictions to combat the spread of the virus, which has had a wide-ranging impact on businesses and individuals, with job losses and business shutdowns in certain industries. This has placed increased pressure on businesses' ability to absorb these impacts, and on consumer budgets. Collectively, this impacts the Group's debt collection performance and any expected credit losses. At the date of this report, the Group has not experienced a significant impact on its debt collection as a result of COVID-19.

Despite this, there remains future credit risk associated with trade receivable amounts due to:

- The impact of the Australian Government stimulus packages and other relief measures coming to an end, coupled with continued uncertainty around the impacts of any additional lock-downs required;
- The end of the COVID-19 disconnection freeze introduced by the Group, and the length of time for any impacts to be realised in the customer accounts; and
- More broadly, the unprecedented nature of this event, such that historical performance cannot be used in isolation as an indicator of the future. The impacts seen in other countries are not comparable due to different consumer patterns, demographics and responses to COVID-19, including the nature and quantum of government stimulus.

C1 Trade and other receivables (continued)

The Group has assessed its provision for bad and doubtful debts in accordance with AASB 9 *Financial Instruments* considering:

- Current collection performance, including the COVID-19 period when lockdown restrictions and government stimulus measures were in place, and expected credit default frequencies;
- Regulatory and economic outlook, including forecast unemployment rates and the timing and quantum of government stimulus packages and other relief measures provided by banks and landlords; and
- Risk profile of customers and industry-specific risk assessments based on actual and forecasted volumes as a measure for credit risk.

These considerations require significant judgement. The Group models the expected credit loss by customer type and industry group. Each segment has been reviewed and a credit risk weighting has been applied depending on the extent COVID-19 has impacted the industry group and the level of significantly aged receivables outstanding. Where possible, publicly available information, such as expected default rates, has been applied. For residential customers, a higher allowance for impairment is included for those with significantly aged receivables.

As at 30 June 2021, the allowance for impairment in respect of trade receivables and unbilled revenue is \$186 million (2020: \$162 million), with \$34 million (2020: \$40 million) of this amount reflecting the increased potential impact of COVID-19.

The average age of trade receivables is 19 days (2020: 20 days). Other receivables are neither past due nor impaired, and relate principally to generation and hedge contract receivables. The ageing of trade receivables and unbilled revenue at the reporting date is detailed below.

\$m	2021		2020	
	Gross	Impairment allowance	Gross	Impairment allowance
Unbilled revenue	1,465	(21)	1,092	(20)
Not yet due	380	(8)	387	(14)
Less than 30 days	105	(7)	102	(6)
31-60 days past due	45	(9)	46	(8)
61-90 days past due	30	(9)	40	(10)
Greater than 91 days	207	(132)	185	(104)
Total	2,232	(186)	1,852	(162)

The movement in the allowance for impairment in respect of trade receivables and unbilled revenue during the year is shown below.

Balance as at 1 July	162	135
Impairment losses recognised	88	124
Amounts written off	(64)	(97)
Balance as at 30 June	186	162

C2 Exploration and evaluation assets

	2021 \$m	2020 \$m
Balance as at 1 July	190	98
Additions	55	92
Balance as at 30 June¹	245	190

¹ The closing balance primarily relates to the Group's 77.5 per cent share in the Beetaloo Basin joint venture with Falcon Oil & Gas (Beetaloo asset); a 75 percent interest in five exploration permits with Bridgeport; and a 100 percent interest in one exploration permit in the Cooper–Eromanga Basin; a 50 per cent interest in five exploration permits with Buru Energy; and a 40 per cent interest in two permits with Buru Energy and Rey Resources in the Canning Basin.

The Group holds a number of exploration permits that are grouped into areas of interest according to geographical and geological attributes. Expenditure incurred in each area of interest is accounted for using the successful efforts method. Under this method, all general exploration and evaluation costs are expensed as incurred except the direct costs of acquiring the rights to explore, drilling exploratory wells and evaluating the results of drilling. These direct costs are capitalised as exploration and evaluation assets pending the determination of the success of the well. If a well does not result in a successful discovery, the previously capitalised costs are immediately expensed.

The carrying amounts of exploration and evaluation assets are reviewed at each reporting date to determine whether any of the following indicators of impairment are present:

- the right to explore has expired, or will expire in the near future, and is not expected to be renewed;
- further exploration for and evaluation of resources in the specific area is not budgeted or planned for;
- the Group has decided to discontinue activities in the area; or
- there is sufficient data to indicate the carrying value is unlikely to be recovered in full from successful development or by sale.

Where an indicator of impairment exists, the asset's recoverable amount is estimated. If it is concluded that the carrying value of an exploration and evaluation asset is unlikely to be recovered by future exploitation or sale, an impairment is recognised in the income statement for the difference.

Key judgement

Recoverability of exploration and evaluation assets

Assessment of the recoverability of capitalised exploration and evaluation expenditure requires certain estimates and assumptions to be made as to future events and circumstances, particularly in relation to whether economic quantities of reserves have been discovered. Such estimates and assumptions may change as new information becomes available.

Upon approval of the commercial development of a project, the exploration and evaluation asset is classified as a development asset. Once production commences, development assets are transferred to PP&E.

C3 Property, plant and equipment

\$m	Owned			Right-of-use		Total
	Plant and equipment	Land and buildings	Capital work in progress	Plant and equipment	Land and buildings	
2021						
Cost	5,863	194	317	162	408	6,944
Less: Accumulated depreciation and impairment losses	(3,405)	(82)	-	(78)	(88)	(3,653)
Total	2,458	112	317	84	320	3,291
Balance as at 1 July 2020	3,443	143	278	108	359	4,331
Additions	36	1	110	29	1	177
Disposals	-	-	-	(13)	(1)	(14)
Modifications to lease terms	-	-	-	12	1	13
Depreciation/amortisation	(294)	(4)	-	(48)	(40)	(386)
Impairment ¹	(801)	(28)	-	(4)	-	(833)
Transfers within PP&E	71	-	(71)	-	-	-
Transfers from intangibles	5	-	-	-	-	5
Effect of movements in foreign exchange rates	(2)	-	-	-	-	(2)
Balance as at 30 June 2021	2,458	112	317	84	320	3,291
2020						
Cost	5,774	194	278	155	407	6,808
Less: Accumulated depreciation and impairment losses	(2,331)	(51)	-	(47)	(48)	(2,477)
Total	3,443	143	278	108	359	4,331
Balance as at 30 June 2019	3,268	141	188	-	-	3,597
Adoption of AASB 16 <i>Leases</i>	(44)	-	(31)	127	318	370
Balance as at 1 July 2019	3,224	141	157	127	318	3,967
Additions	267	1	393	20	1	682
Disposals	(1)	-	-	(1)	-	(2)
Modifications to lease terms	-	-	-	8	78	86
Depreciation/amortisation	(295)	(4)	-	(46)	(40)	(385)
Impairment ²	(19)	-	-	-	-	(19)
Transfers within PP&E	267	5	(272)	-	-	-
Effect of movements in foreign exchange rates	-	-	-	-	2	2
Balance as at 30 June 2020	3,443	143	278	108	359	4,331

1 Refer to Note C8.

2 Impairment relating to the Mortlake generator asset write-off following an electrical fault.

Owned PP&E

PP&E is recorded at cost less accumulated depreciation, depletion, amortisation and impairment charges. Cost includes the estimated future cost of required closure and rehabilitation.

The carrying amounts of assets are reviewed to determine if there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated and if required, an impairment is recognised in the income statement.

Depreciation is calculated on a straight-line basis so as to write off the cost of each asset over its expected useful life. Leasehold improvements are amortised over the period of the relevant lease or estimated useful life, whichever is shorter. Land and capital work in progress are not depreciated.

The estimated useful lives used in the calculation of depreciation are shown below.

Buildings, including leasehold improvements 10 to 50 years

Plant and equipment 3 to 30 years

C3 Property, plant and equipment (continued)

Leased PP&E

The Group's leased assets include commercial offices, power stations, LPG terminals and shipping vessels, motor vehicles and other items of equipment.

ROU assets are recognised at the commencement of a lease. ROU assets are initially valued at the corresponding lease liability amount adjusted for any payments already made, lease incentives received or initial direct costs incurred when entering into the lease. Where the Group is required to restore the ROU asset at the end of the lease, the cost of restoration is also included in the value of the ROU asset.

ROU assets are depreciated on a straight-line basis over the shorter of the lease term or the useful life of the ROU asset. The carrying amounts of ROU assets are reviewed to determine if there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated, and if required, an impairment is recognised in the income statement.

Payments under the Group's leases of renewable power plants are entirely variable as they depend on the amount of energy produced each period. Such leases have nil lease liability balances and thus nil ROU asset balances. All payments made under these leases are disclosed as variable lease expenses within note A4.

Refer to note D2 for discussion of the recognition and measurement of associated lease liability balances.

Key judgements and estimates

Recoverability of carrying values: Estimates of recoverable amounts are based on an asset's value-in-use or fair value less costs to sell, whichever is higher. The recoverable amount of these assets is sensitive to changes in key assumptions. Refer to note C8 for further details.

Estimation of useful economic lives: A technical assessment of the operating life of an asset requires significant judgement. Useful lives are amended prospectively when a change in the operating life is determined.

Restoration provisions: An asset's carrying value includes the estimated future cost of required closure and rehabilitation activities. Refer to note C6 for a judgement related to restoration provisions.

Lease term: Where lease arrangements contain options to extend the term or terminate the contract, the Group assesses whether it is 'reasonably certain' that the option to extend or terminate will be exercised. Consideration is given to all facts and circumstances that create an economic incentive to extend or terminate the contract. Lease liabilities and ROU assets are measured using the reasonably certain contract term.

C4 Intangible assets

	2021 \$m	2020 \$m
Goodwill	4,818	4,818
Software and other intangible assets	1,568	1,494
Accumulated amortisation and impairment losses	(2,012)	(892)
Total	4,374	5,420

Reconciliations of the carrying amounts of each class of intangible asset are set out below.

\$m	Goodwill	Software and other intangibles	Total
Balance as at 1 July 2020	4,818	602	5,420
Additions ¹	-	135	135
Transfers to PP&E	-	(5)	(5)
Impairment ²	(1,006)	-	(1,006)
Amortisation expense	-	(170)	(170)
Balance as at 30 June 2021	3,812	562	4,374
Balance as at 1 July 2019	4,818	563	5,381
Additions ¹	-	171	171
Disposals	-	(2)	(2)
Amortisation expense	-	(130)	(130)
Balance as at 30 June 2020	4,818	602	5,420

1 Additions include amounts relating to the build of the Kraken technology platform, along with amounts relating to the implementation of a new Enterprise Resource Planning system for the Group.

2 Includes \$995 million related to the impairment of Energy Markets segment goodwill (refer to note C8) and \$11 million related to goodwill written off when Horan & Bird Energy Pty Ltd was sold.

Goodwill is stated at cost less any accumulated impairment losses and is not amortised. Software and other intangible assets are stated at cost less any accumulated impairment losses and accumulated amortisation. Amortisation is recognised as an expense on a straight-line basis over the estimated useful lives of the intangible assets.

The average amortisation rate for software and other intangibles (excluding capital work in progress) was 13 per cent (2020: 10 per cent).

Key judgements and estimates

Recoverability of carrying values: Refer to note C8 for further details.

C5 Trade and other payables

	2021 \$m	2020 \$m
Current		
Trade payables and accrued expenses	2,205	1,827
Deferred consideration ¹	202	107
Total	2,407	1,934
Non-current		
Deferred consideration ¹	-	193
Total	-	193

1 Relates to the £100 million (2020: £150 million) deferred cash consideration for the shares acquired in Octopus Energy on 1 May 2020 and £10 million (2020: £20 million) deferred cash consideration for the Kraken licence agreement with Octopus Energy (refer to note B4).

C6 Provisions

\$m	Restoration ¹	Onerous contracts ²	Other ³	Total
Balance as at 1 July 2020	661	641	174	1,476
Provisions recognised	23	13	16	52
Provisions released	(3)	(152)	(4)	(159)
Payments/utilisation	(7)	(40)	(10)	(57)
Unwinding of discounting	1	3	-	4
Effect of movements in foreign exchange rates	-	(54)	-	(54)
Balance as at 30 June 2021	675	411	176	1,262
Current				43
Non-current				1,219
Total provisions				1,262

1 The closing balance includes amounts relating to the restoration of the Eraring Power Station site and other generation gas power station locations. Also included within this balance are rehabilitation provisions for contamination at existing and legacy operating sites.

2 All contracts in which the unavoidable costs of meeting the obligations exceed the economic benefits are deemed onerous and require a provision to be recognised up front. The closing balance includes an onerous contract provision of \$398 million (US\$299 million) for the Cameron LNG purchase contract and \$13 million was recognised during the year in respect of a short-term LNG sales contract with ENN.

3 The closing balance of other provisions primarily relates to costs for compliance with safety standard requirements relating to the Eraring ash dam wall, costs associated with the new Myuna Bay Recreation Centre facility, and a make good provision relating to existing property leases.

Restoration provisions are initially recognised at the best estimate of the costs to be incurred in settling the obligation. Where restoration activities are expected to occur more than 12 months from the reporting period, the provision is discounted using a risk-free rate that reflects current market assessments of the time value of money. The unwinding of the discount is recognised in each period as interest expense.

At each reporting date, the restoration provision is remeasured in line with changes in discount rates, and changes to the timing or amount of costs to be incurred, based on current legal requirements and technology. Any changes in the estimated future costs associated with:

- Restoration and dismantling are added to or deducted from the related asset; and
- Environmental rehabilitation are expensed in the current period.

Key estimate

Restoration, rehabilitation and dismantling costs

The Group estimates the cost of future site restoration activities at the time of installation or construction of an asset, or when an obligation arises. Restoration often does not occur for many years and thus significant judgement is required as to the extent of work, cost and timing of future activities.

C7 Other financial assets and liabilities

\$m	2021		2020	
	Current	Non-current	Current	Non-current
Other financial assets				
<i>Measured at fair value through profit or loss</i>				
MRCPS issued by APLNG	-	1,296	44	2,065
Settlement Residue Distribution Agreement units	42	31	34	26
Environmental scheme certificates	255	-	103	-
Investment fund units	-	64	-	55
Debt and other securities ¹	12	22	-	25
Equity securities	-	6	-	-
<i>Measured at fair value through other comprehensive income</i>				
Equity securities ¹	-	46	-	54
<i>Measured at amortised cost</i>				
Futures collateral	194	-	298	-
Total other financial assets	503	1,465	479	2,225
Other financial liabilities				
<i>Measured at fair value through profit or loss</i>				
Environmental scheme surrender obligations	321	-	234	-
<i>Measured at amortised cost</i>				
Futures collateral	23	-	3	-
Financial guarantees ²	-	15	-	16
Total other financial liabilities	344	15	237	16

1 The prior year comparative has been restated to reclassify \$8 million from fair value through other comprehensive income to fair value through profit and loss.

2 Financial guarantee contracts are initially recognised at fair value. Subsequently, they are measured at either the amount of any determined loss allowance or at the amount initially recognised less any cumulative income recognised, whichever is larger. The above financial guarantee relates to the working capital facility entered into by Octopus Energy with its financiers, as referred to in note B4, for which the Group has provided a guarantee.

C8 Impairment of non-current assets

The carrying amounts of the Group's cash generating units (CGUs) are reviewed at each reporting date to determine whether there is any indication of impairment. Where an indicator of impairment exists, or where goodwill is present, a formal estimate of the recoverable amount is made.

Cash-generating units

Assets are grouped together into the smallest group of individual assets that generate largely independent cash inflows (cash generating unit or (CGU)). As a result of the impairment indications identified and the goodwill associated with each CGU in the Energy Market segment, an impairment assessment was performed at June 2021 in line with the requirements under the accounting standards.

The Energy Markets segment consists of the following materially distinct CGUs:

- **Retail CGU:** incorporates Mass Market customers, Commercial & Industrial customers and the Wholesale & Trading businesses for electricity and natural gas commodities. The Wholesale & Trading business includes various electricity PPAs and major wholesale gas supply contracts.
- **Generation CGU:** incorporates cash flows from Origin's power stations.
- **LPG CGU:** supplies and distributes LPG to residential and business locations across Australia and the Pacific.

Impairment testing for the year ended 30 June 2021

Origin's assessment of the carrying value of its non-current assets in Energy Markets considers a range of macroeconomic factors, including market prices for wholesale electricity, large-scale generation certificate (LGCs) and gas, retail market dynamics, discount rates and costs. The principal changes since the last assessment at 30 June 2020 are a significant reduction in wholesale electricity prices and a contraction in near-term gas earnings as a result of higher procurement costs and subdued business customer demand.

As a result, Origin has recognised an impairment of \$998 million in respect of the Generation CGU, consisting of \$833 million of Generation PP&E and \$165 million of allocated goodwill, with the lower outlook for wholesale electricity prices driven by new supply expected to come online, including both renewable and dispatchable capacity, impacting the valuation of the Generation fleet, particularly Eraring Power Station.

C8 Impairment of non-current assets (continued)

The impairment of goodwill allocated to the Retail CGU of \$830 million primarily relates to lower electricity prices impacting margins on long-term renewable PPAs, as well as lower near-term gas earnings.

It was determined that the LPG CGU is not impaired.

The impairment expense recognised by class of asset is outlined in the following table.

Impairment expense	Note	2021 \$m
Non-current assets		
PP&E	C3	833
Intangible assets	C4	995
Total impairment expense on non-current assets	A4	1,828

Recoverable amount

The recoverable amount of the CGUs within the Energy Markets segment have been determined using value-in-use models that include an appropriate terminal value. The value-in-use calculations are sensitive to a number of key assumptions requiring management judgement, including future commodity prices, regulatory policies, and the outlook for the market supply-and-demand conditions. The key assumptions used by the Group in its impairment assessment are shown in the table below.

Key assumptions	Energy Markets
Commodity prices	Future commodity price assumptions impact the recoverability of carrying values and are reviewed at least twice annually. The Group's estimate of future commodity prices is made with reference to internally derived forecast data, current spot prices, external market analysts' forecasts and forward curves. Where volumes are contracted, future prices reflect the contracted price.
Long-term growth rates	Cash flows are projected for the life of each Generation asset and for the term of electricity PPAs and major wholesale supply contracts in the Retail CGU. Other Retail CGU cash flows are projected for five years. The growth rate used to extrapolate Retail cash flows beyond the initial period projected averages 2.3 per cent, analogous to long term Consumer Price Index.
Customer numbers	This is based on a review of actual customer numbers and historical data regarding levels of customer churn. The historical analysis is considered against current and expected market trends and competition for customers.
Gross margin and operating cost	This is based on a review of actual gross margins and cost per customer, and consideration of current and expected market movements and impacts.
Discount rate	The pre-tax discount rates for Generation and Retail are 9.4 per cent (2020: 9.3 per cent) and 9.7 per cent (2020: 9.6 per cent) respectively.

As a result of the factors outlined above, the carrying amount of the Retail and Generation CGUs exceed their recoverable amounts at 30 June 2021. The resulting impairment write-downs recognised in the year ended 30 June 2021 are shown in the following table.

	Retail	Generation	Total
PP&E	-	833	833
Intangible assets	830	165	995
Total impairment expense	830	998	1,828

Goodwill allocation

Goodwill has been allocated for impairment testing purposes to the individual CGUs in the Energy Markets segment. The carrying amount of goodwill allocated to the Retail CGU is \$4,620 million. The carrying amount of goodwill allocated to each of the other CGUs is not significant in comparison with the total carrying amount of goodwill.

Sensitivity analysis

To the extent the CGUs that include a significant portion of goodwill have been written down to their respective recoverable amounts in the current year, any change in key assumptions on which the valuations are based would further impact asset carrying values. When modelled in isolation, it is estimated that changes in the key assumptions would result in the following additional impairments in FY2021.

Sensitivity	Discount rates increase by 1%	Long-term growth rates decrease by 1%
Retail	(606)	(428)

Changes in any of the aforementioned assumptions may be accompanied by changes in other assumptions, which may have an offsetting impact.

D Capital, funding and risk management

This section focuses on the Group's capital structure and related financing costs. Information is also presented about how the Group manages capital, and the various financial risks to which the Group is exposed through its operating and financing activities.

D1 Capital management

The Group's objective when managing capital is to make disciplined capital allocation decisions between debt reduction, investment in growth and distributions to shareholders, and to maintain an optimal capital structure while maintaining access to capital. Management believes that a strong investment-grade credit rating (Baa2) through the cycle and an appropriate level of net debt are required to meet these objectives. The Group's current credit rating is Baa2 (stable outlook) from Moody's.

Key factors considered in determining the Group's capital structure and funding strategy at any point in time include expected operating cash flows, capital expenditure plans, the maturity profile of existing debt facilities, the dividend policy, and the ability to access funding from banks, capital markets and other sources.

The Group monitors its capital requirements through a number of metrics including the gearing ratio (target range of approximately 20 to 30 per cent) and an adjusted net debt to adjusted underlying EBITDA ratio (target range of 2.0x to 3.0x). These targets are consistent with attaining a strong investment-grade rating. Underlying EBITDA is a non-statutory (non-IFRS) measure.

The gearing ratio is calculated as adjusted net debt divided by adjusted net debt plus total equity. Net debt, which excludes cash held by Origin to fund APLNG-related operations, is adjusted to take into account the effect of FX hedging transactions on the Group's foreign currency debt obligations. The adjusted net debt to adjusted underlying EBITDA ratio is calculated as adjusted net debt divided by adjusted underlying EBITDA (Origin's underlying EBITDA less Origin's share of APLNG underlying EBITDA plus net cash flow from APLNG) over the relevant rolling 12-month period.

The Group monitors its current and future funding requirements for at least the next five years and regularly assesses a range of funding alternatives to meet these requirements in advance of when the funds are required.

	2021 \$m	2020 \$m
Borrowings	4,765	6,338
Lease liabilities	463	514
Total interest-bearing liabilities	5,228	6,852
Less: Cash and cash equivalents excluding APLNG-related cash ¹	(442)	(1,164)
Net debt	4,786	5,688
Fair value adjustments on FX hedging transactions	(147)	(530)
Adjusted net debt	4,639	5,158
Total equity	9,815	12,701
Total capital	14,454	17,859
Gearing ratio	32%	29%
Ratio of adjusted net debt to adjusted underlying EBITDA	2.9x	2.1x

¹ This balance excludes \$30 million (2020: \$76 million) of cash held by Origin, as upstream operator, to fund APLNG-related operations.

The Group undertook a bank debt extension during the year ended 30 June 2021. This activity was aimed at strengthening the capital profile by extending the weighted average tenor of the Group's debt portfolio.

A summary of key transactions is shown below.

Bank debt facility extension

2 July 2020 - extended \$1.1 billion of bank debt facilities from a FY2023 maturity date to a new maturity date in FY2025. A further \$0.2 billion of surplus liquidity was cancelled as part of this transaction.

31 August 2020 - extended US\$200 million of a bank guarantee facility from a FY2023 maturity date to a new maturity date in FY2025.

Debt maturity

23 October 2020 - repaid the €750 million seven-year note under the Euro Medium Term Note (EMTN) program. The notes had been swapped to A\$950 million.

19 December 2020 - repaid the US\$65 million seven-year US Private Placement note.

D2 Interest-bearing liabilities

	2021 \$m	2020 \$m
Current		
Capital market borrowings – unsecured	1,938	1,328
Total current borrowings	1,938	1,328
Lease liabilities – secured	66	73
Total current interest-bearing liabilities	2,004	1,401
Non-current		
Bank loans – unsecured	537	535
Capital market borrowings – unsecured	2,290	4,475
Total non-current borrowings	2,827	5,010
Lease liabilities – secured	397	441
Total non-current interest-bearing liabilities	3,224	5,451

Interest-bearing liabilities are initially recorded at the amount of proceeds received (fair value) less transaction costs. After that date, the liability is amortised to face value at maturity using an effective interest rate method.

Lease liabilities are initially measured at the present value of future lease payments discounted at the Group's incremental borrowing rate. Where a lease includes termination and/or extension options, the impact of these options on the amount of future payments is included where exercise of such options is considered reasonably certain to occur. Interest expense is charged on outstanding lease liabilities that reduce over time as periodic payments are made.

The lease liability is remeasured when certain events occur, including changes in the lease term or changes in future lease payments such as those resulting from inflation-linked indexation or market rate rent reviews. On remeasurement of lease liabilities, a corresponding adjustment is made to the ROU asset.

The Group's leases of renewable power plants are entirely variable as they depend on the amount of energy generation in the period and, as such, there are no lease liability amounts associated with these leases. The variable lease payments associated with these leases are disclosed in note A4.

The contractual maturity of lease liabilities is disclosed within the liquidity table in note D4.

The contractual maturities of non-current borrowings are as set out below.

	2021 \$m	2020 \$m
One to two years	237	2,069
Two to five years	534	356
Over five years	2,056	2,585
Total non-current borrowings	2,827	5,010

Some of the Group's borrowings are subject to terms that allow the lender to call on the debt in the event of a breach of covenants. As at 30 June 2021, these terms had not been triggered.

D3 Contributed equity

	2021	2020	2021	2020
	Number of shares		\$m	
Ordinary share capital				
Opening balance ¹	1,761,211,071	1,761,211,071	7,163	7,163
Less treasury shares:				
Opening balance ¹	(3,212,930)	(4,809,617)	(18)	(38)
Shares purchased on market	(20,903,960)	(12,291,634)	(96)	(75)
Utilisation of treasury shares on vesting of employee share schemes and DRP	18,070,562	13,888,321	89	95
Total treasury shares	(6,046,328)	(3,212,930)	(25)	(18)
Closing balance	1,755,164,743	1,757,998,141	7,138	7,145

¹ The sum of the opening balances of share capital and treasury shares is \$7,145 million (2020: \$7,125 million) as noted in the statement of changes in equity.

Ordinary shares

Holders of ordinary shares are entitled to receive dividends as determined from time to time and are entitled to one vote per share at shareholders' meetings. In the event of the winding up of the Group, ordinary shareholders rank after creditors, and are fully entitled to any proceeds of liquidation. The Group does not have authorised capital or par value in respect of its issued shares.

Treasury shares

Where the Group or other members of the Group purchase shares in the Company, the consideration paid is deducted from the total shareholders' equity and the shares are treated as treasury shares until they are subsequently sold, reissued or cancelled. Treasury shares are purchased primarily for use on vesting of employee share schemes and the DRP. Shares are accounted for at a weighted average cost.

D4 Financial risk management

Overview

The Group's day-to-day operations, new investment opportunities and funding activities introduce financial risks, which are actively managed by the Board Risk Committee. These risks are grouped into the following categories:

- **Credit:** The risk that a counterparty will not fulfil its financial obligations under a contract or other arrangement.
- **Market:** The risk that fluctuations in commodity prices, foreign exchange rates and interest rates will adversely impact the Group's result.
- **Liquidity:** The risk that the Group will not be able to meet its financial obligations as they fall due.

Risk	Sources	Risk management framework	Financial exposure
Credit	Sale of goods and services and hedging activities	The Board approves credit risk management policies that determine the level of exposures it is prepared to accept. It also allocates credit limits to counterparties based on publicly available credit information from recognised providers where available.	Notes C1, C7 and D4 disclose the carrying amounts of financial assets, which represent the Group's maximum exposure to credit risk at the reporting date. The Group utilises International Swaps and Derivative Association (ISDA) agreements to limit exposure to credit risk by netting amounts receivable from and payable to individual counterparties (refer to note G8).
Market	Purchase and sale of commodities and funding risks	The Board approves policies that ensure the Group is not exposed to excess risk from market volatility. These policies include active hedging of price and volume exposures within prescribed cash flow at risk and value at risk limits.	See below for further discussion of market risk.
Liquidity	Ongoing business obligations and new investment opportunities	The Group centrally manages its liquidity position through cash flow forecasting and maintenance of minimum levels of liquidity determined by the Board. The debt portfolio is periodically reviewed to ensure there is funding flexibility and an appropriate maturity profile.	Analysis of the Group's liquidity profile as at the reporting date is presented at the end of this section.

D4 Financial risk management (continued)

Market risk

The scope of the Group's operations and activities exposes it to multiple markets risks. The table below summarises these risks by nature of exposure and provides information about the risk mitigation strategies being applied.

Nature	Sources of financial exposure	Risk management strategy
Commodity price	Future commercial transactions and recognised assets and liabilities exposed to changes in electricity, oil, gas, coal or environmental scheme certificate prices	Due to vertical integration, a significant portion of the Group's spot electricity purchases from the NEM are naturally hedged by generation sales into the NEM at spot prices. The Group manages its remaining exposure to commodity price fluctuations beyond Board-approved limits using a mix of commercial contracts (such as fixed-price purchase contracts) and derivative instruments (described below).
Foreign exchange	Foreign-denominated borrowings and investments (e.g., APLNG MRCPS) and future foreign currency denominated commercial transactions	The Group limits its exposure to changes in foreign exchange rates through forward foreign exchange contracts and cross-currency interest rate swaps. In certain circumstances, borrowings are left in a foreign currency, or swapped from one foreign currency to another, to hedge expected future business cash flows in that currency. Significant foreign-denominated transactions undertaken in the normal course of operations are managed on a case-by-case basis.
Interest rate	Variable-rate borrowings (cash flow risk) and fixed-rate borrowings (fair value risk)	Interest rate exposures are kept within an acceptable range as determined by the Board. Risk limits are managed through a combination of fixed-rate and fixed-to-floating interest rate swaps.

Derivatives to manage market risks

Derivative instruments are contracts with values that are derived from an underlying price index (or other variable) that require little or no initial net investment, and that are settled at a future date.

The Group uses the following types of derivative instruments to mitigate market risk.

Forwards	A contract documenting the underlying reference rate (such as benchmark price or exchange rate) to be paid or received on a notional principal obligation at a future date.
Futures	An exchange-traded contract to buy or sell an asset for an agreed price at a future date. Futures are net-settled in cash without physical delivery of the underlying asset.
Swaps	A contract in which two parties exchange a series of cash flows for another (such as fixed-for-floating interest rate).
Options	A contract in which the buyer has the right, but not the obligation, to buy (a call option) or sell (a put option) an instrument at a fixed price in the future. The seller has the corresponding obligation to fulfil the transaction if the buyer exercises the option.
Structured electricity products	A non-standardised contract, generally with an energy market participant, to acquire long-term capacity. These contracts typically contain features similar to swaps and call options.

Derivatives are carried on the balance sheet at fair value. Movements in the price of the underlying variables, which cause the value of the contract to fluctuate, are reflected in the fair value of the derivative.

The method of recognising changes in fair value depends on whether the derivative is designated in an 'accounting' hedge relationship. Derivatives not designated as accounting hedges are referred to as 'economic' hedges.

Fair value gains and losses attributable to economic hedges are recognised in the income statement and resulted in a \$377 million loss (2020: \$292 million gain) for the year. Fair value gains and losses attributable to accounting hedges are discussed in the Hedge Accounting section.

D4 Financial risk management (continued)

\$m	Assets		Liabilities	
	Current	Non-current	Current	Non-current
2021				
Economic hedges				
Commodity contracts	434	201	(537)	(342)
Foreign exchange and interest rate contracts	10	-	(54)	(60)
Total economic hedges	444	201	(591)	(402)
Accounting hedges				
Commodity contracts	218	121	(150)	(44)
Foreign exchange and interest rate contracts	107	44	-	(60)
Total accounting hedges	325	165	(150)	(104)
Total	769	366	(741)	(506)
2020				
Economic hedges				
Commodity contracts	247	258	(170)	(173)
Foreign exchange and interest rate contracts	2	-	(72)	(124)
Total economic hedges	249	258	(242)	(297)
Accounting hedges				
Commodity contracts	98	43	(224)	(402)
Foreign exchange and interest rate contracts	283	227	-	(50)
Total accounting hedges	381	270	(224)	(452)
Total	630	528	(466)	(749)

Hedge accounting

The Group currently uses two types of hedge accounting relationships, as detailed below.

	Fair value hedge	Cash flow hedge
Objective of hedging arrangement	To hedge our exposure to changes in the fair value of a recognised asset or liability or unrecognised firm commitment, caused by interest rate or foreign currency movements.	To hedge our exposure to variability in the cash flows of a recognised asset or liability, or a highly probable forecast transaction caused by commodity price, interest rate and foreign currency movements.
Effective hedge portion	The following are recognised in profit or loss at the same time: <ul style="list-style-type: none"> all changes in the fair value of the underlying item relating to the hedged risk; and the change in fair value of derivatives. 	The effective portion of changes in the fair value of derivatives designated as cash flow hedges are recognised in the hedge reserve.
Hedge ineffectiveness	Certain determinants of fair value, such as credit charges included in derivatives, or mismatches between the timing of the instrument and the underlying item in the hedge relationship, can cause hedge ineffectiveness. Any ineffectiveness is recognised immediately in profit or loss as a change in the fair value of derivatives.	
Hedged item sold or repaid	The unamortised fair value adjustment is recognised immediately in profit or loss.	Amounts accumulated in the hedge reserve are transferred immediately to profit or loss.
Hedging instrument expires, is sold, is terminated or no longer qualifies for hedge accounting	The unamortised fair value adjustment is recognised in profit or loss when the hedged item is recognised in profit or loss. This may occur over time if the hedged item is amortised over the period to maturity.	The amount previously deferred in the hedge reserve is only transferred to profit or loss when the hedged item is also recognised in profit or loss.

Set out below are the fair values of derivatives designated in hedge accounting relationships at reporting date.

\$m	Assets		Liabilities	
	Current	Non-current	Current	Non-current
Fair value hedges	107	-	-	-
Cash flow hedges	218	165	(150)	(104)
Accounting hedges	325	165	(150)	(104)

D4 Financial risk management (continued)

Fair value hedges

Certain cross-currency interest rate swaps (CCIRSs) have been designated as fair value hedges of the Group's euro-denominated debt.

CCIRSs	FX and interest
Nominal hedge volumes	EUR 800m
Hedge rates	AUD/EUR 0.69; BBSW
Timing of cash flows	Up to Oct 2021
Carrying amounts	\$m
Hedging instrument ¹	107
Hedged debt ²	(1,259)
Fair value increase/(decrease)	\$m
Hedging instrument	(45)
Hedged debt	46
Hedge ineffectiveness ³	1

1 Hedging instruments are included in the derivatives balance on the statement of financial position.

2 Hedged items are included in interest-bearing liabilities on the statement of financial position. Included in this value are \$7 million of accumulated fair value hedge adjustments.

3 Hedge ineffectiveness is recognised within expenses in the income statement as a change in fair value of derivatives.

Cash flow hedges

A number of derivative contracts have been designated as cash flow hedges of the Group's exposure to foreign exchange, interest rate and commodity price fluctuations. Designated derivatives include swaps, options, futures and forwards.

The Group's structured electricity products, though important to the overall risk management strategy, do not qualify for hedge accounting. As such, they are not represented in the summary information below.

2021	FX and interest	Electricity	Crude oil	Propane
Nominal hedge volumes	EUR 750m	13.0 TWh	7,258k barrels	40k mt
Hedge rates	AUD/EUR 0.62-0.81; Fixed 3.2%-6.6%	\$29-\$132	US\$43-US\$71 (ICE Brent); US\$6.3- US\$9.5 (JKM)	US\$265-US\$450
Timing of cash flows - up to	Sep 2029	Jun 2025	Dec 2023 (ICE Brent); Dec 2025 (JKM)	Dec 2022

Carrying amounts - \$m	FX and interest	Electricity	Crude oil	Propane	Total
Hedging instrument - assets ¹	45	27	290	21	383
Hedging instrument - liabilities ¹	(60)	(80)	(107)	(6)	(253)
Hedge reserve ²	47	53	(189)	(15)	(104)

Fair value increase/(decrease) - \$m	FX and interest	Electricity	Crude oil	Propane	Total
Hedging instrument	(37)	61	404	24	452
Hedged item	41	(61)	(398)	(24)	(442)
Hedge ineffectiveness ³	4	-	6	-	10

Reconciliation of hedge reserve - \$m	FX and interest	Electricity	Crude oil	Propane	Total
Effective portion of hedge gains/(losses)	(7)	61	428	27	509
Transfer of deferred losses/(gains) to:					
- Cost of sales	-	140	(34)	(3)	103
- Finance costs	27	-	-	-	27
Tax on above items	(6)	(61)	(118)	(7)	(192)
Change in hedge reserve (post-tax)	14	140	276	17	447

1 Hedging instruments are included in the derivatives balance on the statement of financial position.

2 No hedges have been discontinued or de-designated in the current period.

3 Hedge ineffectiveness is recognised within expenses in the income statement as a change in fair value of derivatives.

D4 Financial risk management (continued)

Residual market risk

After hedging, the Group's financial instruments remain exposed to changes in market pricing. The following is a summary of the Group's residual market risk and the sensitivity of financial instrument fair values to reasonably possible changes in market pricing at the reporting date.

Risk	Residual exposure	Relationship to financial instruments value
USD exchange rate	<ul style="list-style-type: none"> MRCPS financial asset USD debt Euro debt and related USD CCIRs FX and commodity derivatives with USD pricing 	A 10 per cent increase/decrease in the USD exchange rate would increase/decrease fair value by \$21/(\$18) million (2020: \$19 million).
Euro exchange rate	<ul style="list-style-type: none"> Currency basis on the CCIRs swapping euro debt to AUD 	A 10 per cent increase/decrease in the euro exchange rate would decrease/increase fair value by \$11 million (2020: \$17 million).
Interest rates	<ul style="list-style-type: none"> Interest rate swaps Long-term derivatives and other financial assets/liabilities for which discounting is significant 	A 100 basis point increase/decrease in interest rates would impact fair value by (\$38)/\$39 million (2020: (\$43)/\$38 million).
Electricity forward price	<ul style="list-style-type: none"> Electricity forward price 	A 10 per cent increase/decrease in electricity forward prices would increase/decrease fair value by \$68/(\$69) million (2020: \$93/(\$95) million).
Oil forward price	<ul style="list-style-type: none"> Commodity derivatives 	A 10 per cent increase/decrease in oil forward prices would increase/decrease fair value by \$44/(40) million (2020: \$54/(52) million).
REC forward price	<ul style="list-style-type: none"> REC forwards Environmental scheme certificates Environmental scheme surrender obligations 	A 10 per cent increase/decrease in renewable energy certificate forward prices would increase/decrease fair value by \$23 million (2020: \$1 million).

Liquidity risk

The table below sets out the timing of the Group's payment obligations, as compared to the receipts expected from the Group's financial assets, and available undrawn facilities. Amounts are presented on an undiscounted basis and include cash flows not recorded on the statement of financial position, such as interest payments for borrowings.

2021 \$m	Less than one year	One to two years	Two to five years	Over five years
Bank loans and capital markets borrowings	(2,068)	(313)	(754)	(2,221)
Lease liabilities	(91)	(74)	(147)	(276)
Net other financial assets/liabilities	754	199	7	-
Total	(1,405)	(188)	(894)	(2,497)
Derivative liabilities	(779)	(289)	(137)	(68)
Derivative assets	902	211	39	28
Total	123	(78)	(98)	(40)
Net liquidity exposure	(1,282)	(266)	(992)	(2,537)

The amount of cash and committed undrawn floating rate borrowing facilities expiring beyond one year is \$3,279 million.

2020 \$m	Less than one year	One to two years	Two to five years	Over five years
Bank loans and capital markets borrowings	(1,522)	(2,183)	(589)	(2,840)
Lease liabilities	(99)	(84)	(166)	(313)
Net other financial assets/liabilities	82	395	1,494	-
Total	(1,539)	(1,872)	739	(3,153)
Derivative liabilities	(782)	(379)	(200)	(71)
Derivative assets	918	325	143	30
Total	136	(54)	(57)	(41)
Net liquidity exposure	(1,403)	(1,926)	682	(3,194)

The amount of cash and committed undrawn floating rate borrowing facilities expiring beyond one year is \$4,059 million.

D5 Fair value of financial assets and liabilities

Financial assets and liabilities measured at fair value are grouped into the following categories based on the level of observable market data used in determining that fair value:

- *Level 1:* The fair value of financial instruments traded in active markets (such as exchange-traded derivatives and RECs) is the quoted market price at the end of the reporting period. These instruments are included in level 1.
- *Level 2:* The fair value of financial instruments that are not traded in an active market (such as over-the-counter derivatives) is determined using valuation techniques that maximise the use of observable market data. If all significant inputs required to fair value an instrument are observable, either directly (as prices) or indirectly (derived from prices), the instrument is included in level 2.
- *Level 3:* If one or more of the significant inputs required to fair value an instrument is not based on observable market data, the instrument is included in level 3.

2021	Note	Level 1 \$m	Level 2 \$m	Level 3 \$m	Total \$m
Derivative financial assets	D4	44	1,066	25	1,135
Other financial assets at fair value	C7	328	77	1,369	1,774
Financial assets carried at fair value		372	1,143	1,394	2,909
Derivative financial liabilities	D4	(86)	(1,097)	(64)	(1,247)
Other financial liabilities at fair value	C7	(321)	-	-	(321)
Financial liabilities carried at fair value		(407)	(1,097)	(64)	(1,568)
<hr/>					
2020		Level 1 \$m	Level 2 \$m	Level 3 \$m	Total \$m
Derivative financial assets	D4	20	1,004	134	1,158
Other financial assets at fair value	C7	163	72	2,171	2,406
Financial assets carried at fair value		183	1,076	2,305	3,564
Derivative financial liabilities	D4	(202)	(944)	(69)	(1,215)
Other financial liabilities at fair value	C7	(234)	-	-	(234)
Financial liabilities carried at fair value		(436)	(944)	(69)	(1,449)

The following table shows a reconciliation of movements in the fair value of level 3 instruments during the period.

	\$m
Balance as at 1 July 2020	2,236
New instruments recognised in the period	(12)
Instruments transferred out of level 3	(7)
Net cash settlements paid/(received)	(602)
Gains/(losses) recognised in other comprehensive income	2
Gains/(losses) recognised in profit or loss:	
Change in fair value	(290)
Cost of sales	(103)
Interest income	106
Balance as at 30 June 2021	1,330

D5 Fair value of financial assets and liabilities (continued)

Valuation techniques used to determine fair values

The various techniques used to value the Group's financial instruments are summarised in the following table. To the maximum extent possible, valuations are based on assumptions that are supported by independent and observable market data. For instruments that settle more than 12 months from the reporting date, cash flows are discounted at the applicable market yield, adjusted to reflect the credit risk of the specific counterparty.

Instrument	Fair value methodology
Financial instruments traded in active markets	Quoted market prices at reporting date.
Interest rate swaps and CCIRS	Present value of expected future cash flows based on observable yield curves and forward exchange rates at reporting date.
Forward foreign exchange contracts	Present value of future cash flows based on observable forward exchange rates at reporting date.
Electricity, oil and other commodity derivatives (not traded in active markets)	Present value of expected future cash flows based on observable forward commodity price curves (where available). The majority of the Group's level 3 instruments are commodity contracts for which further detail on the significant unobservable inputs is included below.
Other financial instruments	Discounted cash flow analysis.
Long-term borrowings	Present value of future contract cash flows.

Fair value measurements using significant unobservable inputs (level 3)

The following is a summary of the Group's level 3 financial instruments, the significant inputs for which market observable data is unavailable, and the sensitivity of the estimated fair values to the assumptions applied by management.

Instrument ¹	Unobservable inputs	Relationship to fair value
Electricity derivatives	Forward electricity spot market price curve Forward electricity cap price curve Forecast REC prices	A 10 per cent increase/decrease in the unobservable inputs would increase/decrease fair value by \$57 million (2020: \$68 million).
MRCPS issued by APLNG	Forecast APLNG free cash flows	A 10 per cent improvement/ deterioration in the level of APLNG forecast cash flows would impact fair value by \$1 million (2020: \$1 million).

¹ Excludes \$47 million (June 2020: \$55 million) of unlisted equity securities, and associated share warrants, for which management has assessed the investment cost to be a reasonable reflection of fair value at reporting date.

Day 1 fair value adjustments

For certain complex financial instruments, such as the structured electricity products, the fair value that is determined at inception of the contract using unobservable inputs does not equal the transaction price. When this occurs, the difference is deferred to the statement of financial position and recognised in the income statement over the life of the contract in a manner consistent with the valuation methodology initially applied.

	\$m
Reconciliation of net deferred gain	
Balance as at 1 July 2020	102
Value recognised in the income statement	(18)
New instruments	82
Balance as at 30 June 2021	166
Classification of net deferred gain	
Derivative assets	24
Derivative liabilities	142
Balance as at 30 June 2021	166

D5 Fair value of financial assets and liabilities (continued)

Financial instruments measured at amortised cost

Except as noted below, the carrying amounts of non-current financial assets and liabilities measured at amortised cost are reasonable approximations of their fair values due to their short-term nature.

	Fair value hierarchy level	Carrying value		Fair value	
		2021 \$m	2020 \$m	2021 \$m	2020 \$m
Liabilities					
Bank loans – unsecured	2	537	535	575	557
Capital markets borrowings – unsecured	2	2,290	4,475	2,460	4,678
Total¹		2,827	5,010	3,035	5,235

¹ Non-current interest-bearing liabilities in the statement of financial position include \$2,827 million (June 2020: \$5,010 million) as disclosed above, and lease liabilities of \$397 million (June 2020: \$441 million).

The fair value of these financial instruments reflects the present value of expected future cash flows based on market pricing data for the relevant underlying interest and foreign exchange rates. Cash flows are discounted at the applicable credit-adjusted market yield.

E Taxation

This section provides details of the Group's income tax expense, current tax provision, deferred tax balances and tax accounting policies.

E1 Income tax expense

	2021 \$m	2020 \$m
Income tax		
Current tax expense	59	3
Adjustments to current tax expense for previous years	(7)	(34)
Deferred tax expense	391	124
Total income tax expense	443	93
Reconciliation between tax expense and pre-tax net profit		
(Loss)/profit before income tax	(1,846)	179
Income tax using the domestic corporation tax rate of 30 per cent (2020: 30 per cent)		
Prima facie income tax expense on pre-tax accounting profit:		
– at Australian tax rate of 30 per cent	(554)	54
– adjustment for tax exempt charity (Origin Foundation Limited)	(3)	-
– adjustment for difference between Australian and overseas tax rates	-	(1)
Income tax (benefit)/expense on pre-tax accounting profit at standard rates	(557)	53
Increase/(decrease) in income tax expense due to:		
Share of results of equity accounted investees ¹	(57)	(153)
Impairment of carrying value of Energy Market goodwill	298	-
Impairment of investment in APLNG ¹	-	195
Recognition of deferred tax liability in respect of investment in APLNG	669	-
LGC shortfall charge	79	-
Other	7	4
Total increase/(decrease)	996	46
Under/(over) provided in prior years	4	(6)
Total income tax expense	443	93
Deferred tax movements recognised directly in other comprehensive income (including foreign currency translation)		
Financial instruments at fair value	190	(211)
Provisions	17	-
Employee benefits	1	-
Other items	(1)	3
Total	207	(208)

¹ Refer to the Overview for details of prior year reclassification.

The Company and its wholly owned Australian resident entities that met the membership requirement formed a tax-consolidated group with effect from 1 July 2003. The head entity within the tax-consolidated group is Origin Energy Limited. Tax funding arrangement amounts are recognised as inter-entity amounts.

Income tax expense is made up of current tax expense and deferred tax expense. Current tax expense represents the expected tax payable on the taxable income for the year, using current tax rates and any adjustment to tax payable in respect of previous years. Deferred tax expense reflects the temporary differences between the accounting carrying amount of an asset or liability in the statement of financial position and its tax base.

E1 Income tax expense (continued)

Key judgements and estimates

Tax balances: Tax balances reflect a current understanding and interpretation of existing tax laws. Uncertainty arises due to the possibility that changes in tax law or other future circumstances can impact the tax balances recognised in the financial statements. Ultimate outcomes may vary.

Deferred taxes: The recognition of deferred tax balances requires judgement as to whether it is probable such balances will be utilised and/or reversed in the foreseeable future and there will be sufficient future taxable profits against which the benefits can be utilised.

A deferred tax liability is recognised for taxable temporary differences associated with investments in joint ventures unless the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. During the year, the Group recognised a deferred tax liability amounting to \$669 million in respect of the investment in APLNG, representing equity accounted earnings that are expected to be distributed to Origin via dividends from APLNG in the foreseeable future. In determining the forecast distributions from APLNG, the Group's assessment of future cash flows considers a range of macroeconomic and project assumptions, including oil and LNG prices, AUD/USD exchange rates, discount rates and costs over the asset's life.

At 30 June 2021, none of the remaining unbooked balance is expected to reverse in the foreseeable future through the payment of future dividends, through sale or through a capital return. The unrecognised portion is disclosed in note E2.

Income tax expense recognised in other comprehensive income

\$m	2021			2020		
	Gross	Tax	Net	Gross	Tax	Net
Investment valuation changes	(8)	2	(6)	6	(3)	3
Actuarial gain on defined benefit superannuation plan	4	(1)	3	-	-	-
<i>Cash flow hedges:</i>						
Reclassified to income statement	130	(39)	91	5	(1)	4
Effective portion of change in fair value	509	(153)	356	(705)	212	(493)
Translation of foreign operations	(623)	(16)	(639)	125	-	125
Other comprehensive income for the year	12	(207)	(195)	(569)	208	(361)

E2 Deferred tax

Deferred tax balances arise when there are temporary differences between accounting carrying amounts and the tax bases of assets and liabilities, other than where:

- the difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and affects neither the accounting profit nor taxable profit or loss;
- temporary differences relate to investments in subsidiaries, associates and interests in joint arrangements, to the extent the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- temporary differences arise on initial recognition of goodwill.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised. Deferred tax assets are reduced if it is no longer probable that the related tax benefit will be realised.

E2 Deferred tax (continued)

Movement in temporary differences during the year

Asset/(liability) \$m	1 July 2019	Adoption of AASB 16 Leases	Recognised in income	Recognised in equity	30 June 2020	Recognised in income	Recognised in equity	30 June 2021
Employee benefits	65	-	14	-	79	2	(1)	80
Provisions	208	(30)	310	-	488	(41)	(17)	430
Tax value of carry-forward tax losses recognised	1	-	45	-	46	(45)	-	1
PP&E	(406)	23	(120)	-	(503)	277	-	(226)
Exploration and evaluation assets	120	-	(174)	-	(54)	(13)	-	(67)
Financial instruments at fair value	285	(154)	(175)	211	167	103	(190)	80
Investment in APLNG ¹	-	-	-	-	-	(669)	-	(669)
APLNG MRCPS elimination (refer to note B2.1)	50	-	(1)	-	49	(1)	-	48
Business-related costs (deductible under s.40-880 ITAA97)	43	-	(16)	-	27	(1)	-	26
ROU assets	-	(134)	(6)	-	(140)	19	-	(121)
Lease liabilities	2	144	8	-	154	(15)	-	139
Other items	12	2	(9)	(3)	2	(7)	1	(4)
Net deferred tax liabilities	380	(149)	(124)	208	315	(391)	(207)	(283)

1 The Group has recognised a deferred tax liability in respect of the investment in APLNG amounting to \$669 million at 30 June 2021 representing equity accounted earnings that are expected to be distributed to Origin via dividends from APLNG in the foreseeable future.

Unrecognised deferred tax assets and liabilities

	2021 \$m	2020 \$m
Deferred tax assets have not been recognised in respect of the following items:		
Revenue losses - non-Australian	4	26
Capital losses	223	216
Petroleum resource rent tax, net of income tax	118	118
Acquisition transaction costs	57	57
Investment in joint ventures	67	67
Intangible assets	8	8
Total deferred tax assets	477	492
Deferred tax liabilities have not been recognised in respect of the following items:		
Investment in APLNG ¹	(810)	(1,615)
Total deferred tax liabilities	(810)	(1,615)

1 The deferred tax liability in respect of the investment in APLNG has not been recognised in full during the year as not all of the temporary difference is expected to reverse in the foreseeable future.

F Group structure

The following section provides information on the Group's structure and how this impacts the results of the Group as a whole, including details of joint arrangements, associates, controlled entities, transactions with non-controlling interests, and changes made to the Group structure during the year.

F1 Controlled entities

The financial statements of the Group include the consolidation of Origin Energy Limited and controlled entities. Controlled entities are the following entities controlled by the parent entity (Origin Energy Limited).

	Incorporated in	Ownership interest per cent	
		2021	2020
Origin Energy Limited	NSW		
Origin Energy Finance Limited	Vic	100	100
Huddart Parker Pty Limited ¹	Vic	100	100
FRL Pty Ltd ¹	WA	100	100
B.T.S. Pty Ltd ¹	WA	-	100
Origin Energy Power Limited ¹	SA	100	100
Origin Energy SWC Limited ¹	WA	100	100
BESP Pty Ltd	Vic	-	100
Origin Energy Eraring Pty Limited ¹	NSW	100	100
Origin Energy Eraring Services Pty Limited ¹	NSW	100	100
Origin Energy Upstream Holdings Pty Ltd	Vic	100	100
Origin Energy B2 Pty Ltd	Vic	100	100
Origin Energy Browse Pty Ltd	Vic	100	100
Origin Energy West Pty Ltd	NSW	100	-
Origin Energy C6 Pty Limited	Vic	100	100
Origin Energy C5 Pty Limited	Vic	100	100
Origin Energy Future Fuels Pty Ltd	Vic	100	100
Origin Energy Upstream Operator Pty Ltd	Vic	100	100
Origin Energy Holdings Pty Limited ¹	Vic	100	100
Origin Energy Retail Limited ¹	SA	100	100
Origin Energy (Vic) Pty Limited ¹	Vic	100	100
Gasmart (Vic) Pty Ltd ¹	Vic	100	100
Origin Energy (TM) Pty Limited ¹	Vic	100	100
Cogent Energy Pty Ltd	Vic	100	100
Origin Energy Retail No. 1 Pty Limited	Vic	100	100
Origin Energy Retail No. 2 Pty Limited	Vic	100	100
Horan & Bird Energy Pty Ltd	Qld	-	100
Origin Energy Electricity Limited ¹	Vic	100	100
Eraring Gentrader Depositor Pty Limited	Vic	100	100
Sun Retail Pty Ltd ¹	Qld	100	100
OE Power Pty Limited ¹	Vic	100	100
Origin Energy Uranquinty Power Pty Ltd ¹	Vic	100	100
OC Energy Pty Ltd ¹	Vic	100	100
Origin Energy Eraring Battery Pty Ltd	NSW	100	-
Origin Energy International Holdings Pty Limited	Vic	100	100
Origin Energy Mortlake Terminal Station No. 2 Pty Limited	Vic	-	100
Origin Energy PNG Ltd ²	PNG	66.7	66.7
Origin Energy PNG Holdings Limited ²	PNG	100	100
Origin Energy Tasmania Pty Limited ¹	Tas	100	100
The Fiji Gas Co Ltd	Fiji	51	51
Origin Energy Contracting Limited ¹	Qld	100	100

¹ Entered into ASIC Corporations (Wholly-owned Companies) Instrument 2016/785 and related Deed of Cross Guarantee with Origin Energy Limited.

² Controlled entity has a financial reporting period ending 31 December.

F1 Controlled entities (continued)

	Incorporated in	Ownership interest per cent	
		2021	2020
Origin Energy LPG Limited ¹	NSW	100	100
Origin (LGC) (Aust) Pty Limited ¹	NSW	100	100
Origin Energy SA Pty Limited ¹	SA	100	100
Hylemit Pty Limited	Vic	100	100
Origin Energy LPG Retail (NSW) Pty Limited	NSW	100	100
Origin Energy WA Pty Limited ¹	WA	100	100
Origin Energy Services Limited ¹	SA	100	100
OEL US Inc.	USA	100	100
Origin Energy NSW Pty Limited ¹	NSW	-	100
Origin Energy Asset Management Limited ¹	SA	100	100
Origin Energy Pipelines Pty Limited ¹	NT	100	100
Origin Energy Pipelines (SESA) Pty Limited	Vic	-	100
Origin Energy Pipelines (Vic) Holdings Pty Limited ¹	Vic	-	100
Origin Energy Pipelines (Vic) Pty Limited ¹	Vic	-	100
Origin Energy Solomons Ltd	Solomon Islands	80	80
Origin Energy Cook Islands Ltd	Cook Islands	100	100
Origin Energy Vanuatu Ltd	Vanuatu	100	100
Origin Energy Samoa Ltd	Western Samoa	100	100
Origin Energy American Samoa Inc	American Samoa	100	100
Origin Energy Insurance Singapore Pte Ltd	Singapore	100	100
Angari Pty Limited ¹	SA	100	100
Oil Investments Pty Limited ¹	SA	100	100
Origin Energy Southern Africa Holdings Pty Limited	Qld	100	100
Origin Energy Zoca 91-08 Pty Limited ¹	SA	-	100
Sagasco NT Pty Ltd ¹	SA	-	100
Sagasco Amadeus Pty Ltd ¹	SA	-	100
Origin Energy Amadeus Pty Limited ¹	Qld	-	100
Amadeus United States Pty Limited ¹	Qld	-	100
Origin Energy Vietnam Pty Limited	Vic	100	100
Origin Energy Singapore Holdings Pte Limited	Singapore	100	100
Origin Energy (Song Hong) Pte Limited	Singapore	100	100
Origin Future Energy Pty Limited	NSW	100	100
Origin Energy Metering Coordinator Pty Ltd	NSW	100	100
Origin Energy Resources NZ (Rimu) Limited	NZ	100	100
Origin Energy VIC Holdings Pty Limited ¹	Vic	100	100
Origin Energy Capital Ltd ¹	Vic	-	100
Origin Energy Finance Company Pty Limited ¹	Vic	-	100
OE JV Co Pty Limited ¹	Vic	100	100
Origin Energy LNG Holdings Pte Limited	Singapore	100	100
Origin Energy LNG Portfolio Pty Ltd ¹	Vic	100	100
Origin Energy Australia Holding BV ²	Netherlands	100	100
Origin Energy Mt Stuart BV ²	Netherlands	100	100
OE Mt Stuart General Partnership ²	Netherlands	100	100
Parbond Pty Limited	NSW	100	100
Origin Education Foundation Pty Limited	Vic	-	100
Origin Energy Foundation Ltd	NSW	100	100

¹ Entered into ASIC Corporations (Wholly-owned Companies) Instrument 2016/785 and related Deed of Cross Guarantee with Origin Energy Limited.

² Controlled entity has a financial reporting period ending 31 December.

F1 Controlled entities (continued)

	Incorporated in	Ownership interest per cent	
		2021	2020
Origin Renewable Energy Investments No 1 Pty Ltd	Vic	100	100
Origin Renewable Energy Investments No 2 Pty Ltd	Vic	-	100
Origin Renewable Energy Pty Ltd	Vic	100	100
Origin Energy Geothermal Holdings Pty Ltd	Vic	100	100
Origin Energy Geothermal Pty Ltd	Vic	100	100
Origin Energy Chile Holdings Pty Limited	Vic	100	100
Origin Energy Chile S.A. ¹	Chile	100	100
Origin Energy Geothermal Chile Limitada ¹	Chile	-	100
Origin Energy Wind Holdings Pty Ltd	Vic	100	100
Crystal Brook Wind Farm Pty Limited	NSW	-	100
Wind Power Pty Ltd	Vic	100	100
Origin Energy Hydro Bermuda Limited	Bermuda	100	100
Origin Energy Hydro Chile SpA ¹	Chile	-	100

¹ Controlled entity has a financial reporting period ending 31 December.

Changes in controlled entities

On 16 July 2020, Origin Energy CSG 2 Pty Limited changed its name to Origin Energy C6 Pty Limited.

The following entities were deregistered on 5 August 2020:

- Amadeus United States Pty Limited;
- Origin Energy Amadeus Pty Limited;
- Sagasco Amadeus Pty Ltd; and
- Sagasco NT Pty Ltd.

The following entities were deregistered on 19 August 2020:

- Origin Renewable Energy Investments No 2 Pty Ltd;
- BESP Pty Ltd;
- Crystal Brook Wind Farm Pty Limited;
- Origin Energy Mortlake Terminal Station No. 2 Pty Limited; and
- Origin Energy Pipelines (SESA) Pty Limited.

On 1 September 2020, Origin Future Energy Pty Ltd transferred its shares in Energy Rewards Pty Ltd to Origin Energy Upstream Holdings Pty Ltd.

On 3 September 2020, Origin Energy Rewards Pty Ltd changed its name to Origin Energy Future Fuels Pty Ltd.

On 15 December 2020, Origin Energy West Pty Ltd was incorporated.

On 17 December 2020, Horan & Bird Energy Pty Ltd was sold.

The following entities were deregistered on 15 March 2021:

- Origin Energy Capital Ltd;
- Origin Energy Finance Company Pty Limited;
- Origin Energy Pipelines (Vic) Pty Limited;
- Origin Energy Pipelines (Vic) Holdings Pty Ltd;
- Origin Energy NSW Pty Limited;
- Origin Energy Zoca 91-08 Pty Limited; and
- B.T.S. Pty Ltd.

On 21 April 2021, Origin Energy Eraring Battery Pty Ltd was incorporated.

On 12 May 2021, Origin Energy Education Foundation Pty Limited was deregistered.

On 23 June 2021, Origin Energy Geothermal Chile Limitada was wound up.

On 30 June 2021, Origin Energy Hydro Chile SpA was wound up.

F2 Business combinations

There were no significant business combinations during the year.

F3 Joint arrangements and investments in associates

Joint arrangements are entities over whose activities the Group has joint control, established by contractual agreement and requiring the consent of two or more parties for strategic, financial and operating decisions. The Group classifies its interests in joint arrangements as either joint operations or joint ventures, depending on its rights to the assets and obligations for the liabilities of the arrangements.

Associates are entities, other than partnerships, for which the Group exercises significant influence, but no control, over the financial and operating policies, and which are not intended for sale in the near future.

Of the Group's interests in joint arrangements and associates, only APLNG and Octopus Energy have a material impact on the Group at 30 June 2021 (refer to Section B).

Interests in unincorporated joint operations

The Group's interests in unincorporated joint operations are brought to account on a line-by-line basis in the income statement and statement of financial position. These interests are held on the following assets whose principal activities are oil and/or gas exploration, development and production; power generation; and geothermal power technology:

- Beetaloo Basin
- Browse Basin
- Canning Basin
- Innamincka Deeps Geothermal
- Cooper-Eromanga Basin

On 18 December 2020, the Group reached an agreement with Buru Energy to acquire its 50 per cent interest in five exploration permits following the execution of a farm-in arrangement, and a 40 per cent interest in two permits with Buru Energy and Rey Resources that was effective from 15 April 2021. Buru Energy is the operator of these permits and will continue to act in this capacity upon completion.

G Other information

This section includes other information to assist in understanding the financial performance and position of the Group, and items required to be disclosed to comply with accounting standards and other pronouncements.

G1 Contingent liabilities

Discussed below are items where either it is not probable that the Group will have to make future payments or it is not possible to reliably measure the amount of future payments.

Joint arrangements and associates

As a participant in certain joint arrangements, the Group is liable for its share of liabilities incurred by these arrangements. In some circumstances, the Group may incur more than its proportionate share of such liabilities, but will have the right to recover the excess liability from the other joint arrangement participants.

The Group continues to provide parent company guarantees in excess of its 37.5 per cent shareholding in APLNG, in respect of certain historical domestic contracts.

In October 2018, Origin and the other APLNG shareholders agreed to indemnify one of APLNG's long-term LNG customers (following that customer's election to defer delivery of 30 cargoes over six years (2019-24)) should APLNG fail to supply make-up cargoes to that customer prior to the expiry of the LNG supply contract. The customer will pay APLNG for the deferred cargoes and APLNG expects to resell the gas to other customers, and deliver the deferred cargoes to the long-term LNG customer between 2025 and the end of the LNG supply contract. The indemnity was provided severally in accordance with each shareholder's proportionate shareholding in APLNG. At the inception of the agreement, any obligation or liability on the part of the shareholders will only be confirmed by the occurrence or non-occurrence of future events, and cannot be measured with sufficient reliability.

The Group has entered into a further agreement to provide a financial guarantee to Octopus Energy's financiers in respect of a working capital facility entered into by Octopus Energy. Under this agreement, the Group is required to make a payment to Octopus Energy's financiers should Octopus Energy not make payments under the working capital facility. In return, Octopus Energy is required to pay a monthly fee to the Group in respect of the guarantee facility. The guarantee has been accounted for as a Financial Guarantee Contract under AASB 9 *Financial Instruments* and has been initially recognised at fair value (refer to note C7) with reference to the guarantee amount in the facility agreement.

Legal and regulatory

Certain entities within the Group (and joint venture entities, such as APLNG) are subject to various lawsuits and claims as well as audits and reviews by government, regulatory bodies or other joint venture partners. In most instances, it is not possible to reasonably predict the outcome of these matters or their impact on the Group. Where outcomes can be reasonably predicted, provisions are recorded.

A number of sites owned/operated (or previously owned/operated) by the Group have been identified as potentially contaminated. For sites where it is likely that a present obligation exists, and it is probable that an outflow of resource will be required to settle the obligation, such costs have been expensed or provided for.

Warranties and indemnities have also been given and/or received by entities in the Group in relation to environmental liabilities for certain properties divested and/or acquired.

Capital expenditure

As part of the acquisition of Browse Basin exploration permits in 2015, the Group agreed to pay cash consideration of US\$75 million contingent upon a project Final Investment Decision (FID), and US\$75 million contingent upon first production. The Group will pay further contingent consideration of up to US\$50 million upon first production if 2P reserves, at the time of the FID, reach certain thresholds. These obligations have not been provided for at the reporting date as they are dependent upon uncertain future events not wholly within the Group's control.

Bank guarantees

There are no contingent liabilities arising from bank guarantees held by the Group that are required to be disclosed as at the reporting date, as these have either been provided for in the accounts or an outflow of economic benefits is considered remote.

The Group's share of guarantees for certain contractual commitments of its joint ventures is shown at note G2.

G2 Commitments

Detailed below are the Group's contractual commitments that are not recognised as liabilities as there is no present obligation.

	2021 \$m	2020 \$m
Capital expenditure commitments	107	109
Joint venture commitments ¹	208	340

1 Includes \$135 million (2020: \$269 million) in relation to the Group's share of APLNG's capital and joint venture commitments.

G3 Share-based payments

This section sets out details of the Group's share-based remuneration arrangements, including details of the Company's Equity Incentive Plan and Employee Share Plan (ESP).

The table below shows share-based remuneration expenses that were recognised during the year.

	2021 \$m	2020 \$m
Equity Incentive Plan	24	30
Employee Share Plan	4	4
Total	28	34

Equity Incentive Plan

Eligible employees are granted share-based remuneration under the Origin Energy Limited Equity Incentive Plan. Participation in the plan is at the Board's discretion and no individual has a contractual right to participate or to receive any guaranteed benefits. Equity incentives granted prior to FY2018 were offered in the form of Options and/or Share Rights. From FY2019 onwards, equity incentives are granted in the form of Share Rights and/or Restricted Shares (RSs). Only RSs carry dividend and voting entitlements. To the extent that Share Rights ultimately vest, a dividend equivalent mechanism operates.

(i) Short Term Incentive

Short Term Incentive (STI) includes the award of RSs, which are subject to trading restrictions for a set period of time (generally up to two years), after which they become unrestricted, provided that the employee remains employed with satisfactory performance. Once unrestricted, the shares are transferred into the employee's name at no cost. The face value of RSs measured at grant date is recognised as an employee expense over the related service period. RSs are forfeited if the service and performance conditions are not met.¹

(ii) Long Term Incentive

The Long Term Incentive (LTI) awards include the award of Share Rights, which vest subject to performance conditions. Generally half of each LTI award is made in the form of Performance Share Rights (PSRs) and is subject to a market hurdle, namely Origin's Total Shareholder Return (TSR) relative to a Reference Group of ASX-listed companies, as identified in the 2021 Remuneration Report. The remaining half of each LTI award is made in the form of Restricted Share Rights (RSRs), where vesting is subject to Board assessment with reference to, 'underpinning conditions', as set out in the 2021 Remuneration Report.

The number of awards that may vest are considered separately for PSRs and RSRs. For the PSR awards, which are subject to the relative TSR hurdle, vesting only occurs if Origin's TSR over the performance period ranks higher than the 50th percentile of the Reference Group. Half of the PSRs vest if that condition is satisfied. All the PSRs vest if Origin ranks at or above the 75th percentile of the Reference Group. Straight-line pro-rata vesting applies in between these two points. The PSR grants made in FY2021 have a performance period of three years. Vesting is into RSs with a trading restriction for a further two years (total deferral five years). For the RSR awards, the Board will determine the vesting outcome shortly before each of three progressive vesting dates at years three, four and five by reference to a broad range of performance indicators. Vesting is into RSs which all have trading restrictions until the end of the fifth year.

Prior to FY2021, the LTI awards include the award of PSRs, such that half of the award is subject to the TSR hurdle, and the remaining half of each LTI award is subject to an internal hurdle, namely Return on Capital Employed (ROCE), as set out in the relevant remuneration report.

For awards granted in FY2017 and FY2018 that are subject to a ROCE hurdle, which are subject to testing or vesting in FY2021, vesting only occurs if two conditions are satisfied:

- the average of the actual annual ROCE outcomes over the performance period meets or exceeds the average of the annual targets set in advance by the Board (Gate 1); and
- the actual ROCE in either of the last two years of the performance period meets or exceeds Origin's pre-tax weighted average cost of capital (WACC) (Gate 2).

Half of the relevant PSRs will vest if Gate 1 is met and Origin's pre-tax WACC is met under Gate 2. All the PSRs will vest if Gate 1 is met and Origin's pre-tax WACC is exceeded by two percentage points or more under Gate 2. Straight-line pro-rata vesting applies in between.

For awards granted in FY2019 and FY2020 that are subject to the ROCE hurdle, half of the ROCE tranche is allocated to Energy Markets and the other half to Integrated Gas. Each tranche will be tested separately and vest separately. Vesting for each tranche only occurs if the average actual annual ROCE outcomes over the performance period for the relevant business meets or exceeds the average of the annual ROCE targets, which are reflective of delivering WACC for the relevant business. Half of the relevant PSRs will vest if the ROCE target is met. All the relevant PSRs will vest if the ROCE target is exceeded by two percentage points or more. Straight-line pro-rata vesting applies in between.

Vested share rights are automatically exercised upon vesting, and there is no exercise price. Upon exercise, a vested award is converted into one fully paid ordinary share that is subject to a post-vesting holding lock for a set period (generally up to two years) and carries voting and dividend entitlements.

In relation to SRs awarded since FY2021, upon vest, a dividend equivalent amount will be delivered in the form of additional shares equal in value (as determined by the Board) to the amount of dividends that would have been paid and re-invested had the participant held the underlying shares during the period from the grant date through to the relevant vesting date.

¹ The Equity Incentive Plan Rules set out exceptional circumstances, such as death, disability, redundancy or genuine retirement, ('good leaver' circumstances) under which RSs are released at cessation unless the Board determines otherwise. Prior to FY2018, the equity component of STI was awarded in the form of Deferred Share Rights (DSRs).

G3 Share-based payments (continued)

The fair value of the awards granted is recognised as an employee expense, with a corresponding increase in equity, over the vesting period. In exceptional circumstances¹, unvested Share Rights may be held 'on foot' subject to the specified performance hurdles and other plan conditions being met, or dealt with in an appropriate manner determined by the Board.

For PSRs subject to the relative TSR condition, fair value is measured at grant date using a Monte Carlo simulation model that takes into account the exercise price, share price at grant date, price volatility, dividend yield, risk-free interest rate for the term of the security, and the likelihood of meeting the TSR market condition.

The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may not necessarily be the actual outcome. The amount recognised as an expense is adjusted to reflect the actual number of awards that vest except where due to non-achievement of the TSR market condition. Set out below are the inputs used to determine the fair value of the PSRs granted during the year.

For RSRs subject to the underpinning conditions, the initial fair value at grant date is the market value of an Origin share, and the recognised expense is trued up at each reporting period to the expected outcome as assessed at that time.

Set out below is a summary of RSRs and PSRs issued during the financial year.

	RSRs	PSRs
Grant date	03 Nov 2020	03 Nov 2020
Grant date share price	\$4.28	\$4.28
Exercise price	Nil	Nil
Volatility	-	35%
Risk-free rate ¹	-	0.10%
Grant date fair value (per award)	\$4.28	\$1.37

¹ Where the risk-free rate is nil, these RSR tranches are subject to a number of underpinning conditions to be assessed by the Board; therefore, the risk-free rate is not relevant to their valuation.

Equity Incentive Plan awards outstanding

Set out below is a summary of awards outstanding at the beginning and end of the financial year.

	Options	Weighted average exercise price	PSRs	RSRs	DSRs	RSs
Outstanding at 1 July 2020	3,259,381	\$6.33	6,243,467	-	213,038	4,523,573
Granted	-	-	1,044,581	1,056,609	-	4,216,362
Exercised/released	-	-	563,432	-	167,482	1,758,548
Forfeited	154,160	-	1,054,312	61,440	-	286,232
Outstanding at 30 June 2021	3,105,221	\$6.32	5,670,304	995,169	45,556	6,695,155
Exercisable at 30 June 2021	-	-	-	-	-	-
Outstanding at 1 July 2019	5,565,803	\$6.51	5,126,670	-	1,920,849	1,867,476
Granted	-	-	2,346,098	-	-	3,005,423
Exercised	-	-	-	-	1,705,133	256,173
Forfeited	2,306,422	-	1,229,301	-	2,678	93,153
Outstanding at 30 June 2020	3,259,381	\$6.33	6,243,467	-	213,038	4,523,573
Exercisable at 30 June 2020	-	-	-	-	-	-

The weighted average share price during 2021 was \$4.75 (2020: \$6.80). The options outstanding at 30 June 2021 have an exercise price in the range of \$5.21 to \$7.37 (2020: \$5.21 to \$7.37) and a weighted average contractual life of 5.6 years (2020: 6.6 years).

For more information on these share plans and performance rights issued to key management personnel, refer to the Remuneration Report.

Employee Share Plan

Under the ESP, all eligible employees have a choice of either participating in the \$1,000 General Employee Share Plan (GESP) or the Matching Share Plan (MSP).

Under the GESP, all employees of the Company who are based in Australia and have been continuously employed as at 1 March of the performance year, are granted up to \$1,000 of fully paid Origin shares conditional on Board approval. The shares are granted for no consideration. Shares awarded under the GESP are purchased on market, registered in the name of the employee, and are restricted for three years, or until cessation of employment, whichever occurs first.

¹ The Equity Incentive Plan Rules provide that Share Rights, and RSs arising from STI arrangements, are forfeited on cessation of employment, except in 'good leaver' circumstances or unless the Board determines otherwise. The offer terms provide guidance for the exercise of that discretion, specifically that the Share Rights and RSs will not normally be forfeited in cases of 'good leavers' (such as those ceasing employment due to death, disability, redundancy or genuine retirement).

G3 Share-based payments (continued)

Under the MSP, all eligible employees may elect to purchase shares via a salary sacrifice arrangement, which commences on 1 October of the performance year. The shares under this plan are allotted quarterly and are subject to a trading restriction for a set period (generally two years) or until cessation of employment. The Company matches the purchased shares on a one-for-two basis with allocation of additional MRs which vest at the same time as the restriction is lifted for the purchased shares. Vesting of MRs is conditional on the employee remaining in continuous employment at that time. MRs are forfeited if the service conditions are not met.¹

Details of the shares awarded under the GESP during the year are set out below. The cost per share represents the weighted average market price of the Company's shares on the grant date.

	Grant date	Shares granted	Cost per share	Total cost \$'000
2021	28 Aug 2020	703,794	\$5.49	3,864
Total		703,794		3,864
2020	3 Sep 2019	528,264	\$7.55	3,988
Total		528,264		3,988

Set out below is a summary of MRs outstanding at the beginning and end of the financial year.

	MRs
Outstanding at 1 July 2020	228,541
Granted	299,315
Exercised/released	139,577
Forfeited	12,384
Outstanding at 30 June 2021	375,895
Exercisable at 30 June 2021	-

G4 Related party disclosures

The Group's interests in equity accounted entities and details of transactions with these entities are set out in notes B1 and B4.

Certain Directors of Origin Energy Limited are also directors of other companies that supply Origin Energy Limited with goods and services or acquire goods or services from Origin Energy Limited. Those transactions are approved by management within delegated limits of authority, and the Directors do not participate in the decisions to enter into such transactions. If the decision to enter into those transactions should require approval of the Board, the Director concerned will not vote upon that decision nor take part in the consideration of it.

G5 Key management personnel

	2021 \$	2020 \$
Short-term employee benefits	10,344,127	11,619,739
Post-employment benefits	289,963	262,538
Other long-term benefits	225,909	136,474
Share-based payments	4,133,424	5,124,047
Total	14,993,423	17,142,798

Loans and other transactions with key management personnel

There were no loans with key management personnel during the year.

Transactions entered into during the year with key management personnel are normal employee, customer or supplier relationships and have terms and conditions that are no more favourable than dealings in the same circumstances on an arm's length basis. These transactions include:

- the receipt of dividends from Origin Energy Limited or participation in the DRP;
- participation in the ESP and Equity Incentive Plan;
- terms and conditions of employment or directorship appointment;
- reimbursement of expenses incurred in the normal course of employment; and
- purchases of goods and services.

¹ The Equity Incentive Plan Rules provide that Share Rights, and RSs arising from STI arrangements, are forfeited on cessation of employment, except in 'good leaver' circumstances or unless the Board determines otherwise. The offer terms provide guidance for the exercise of that discretion, specifically that the Share Rights and RSs will not normally be forfeited in cases of 'good leavers' (such as those ceasing employment due to death, disability, redundancy or genuine retirement).

G6 Notes to the statement of cash flows

Cash includes cash on hand, at bank and in short-term deposits, net of outstanding bank overdrafts. The following table reconciles profit to net cash provided by operating activities.

	2021 \$m	2020 \$m
(Loss)/profit for the year	(2,289)	86
Adjustments for non-cash ITDA		
Depreciation and amortisation	550	509
Net financing costs	133	126
Income tax expense	443	93
Non-cash share of ITDA of equity accounted investees ¹	958	1,262
Adjustments for other non-cash items		
Decrease/(increase) in fair value of derivatives	366	(275)
Decrease/(increase) in fair value of financial instruments	163	(123)
Unrealised foreign exchange gain	(153)	-
Impairment of assets ^{1,2}	1,828	668
Loss/(gain) on sale of assets	11	(1)
Impairment losses recognised - trade and other receivables	88	124
Non-cash share of EBITDA of equity accounted investees ¹	(1,153)	(1,774)
Exploration expense	1	3
Executive share-based payment expense	24	30
Changes in assets and liabilities:		
- Receivables	(398)	217
- Inventories	50	(26)
- Payables	450	(180)
- Provisions	(178)	663
- Other	(71)	104
- Futures collateral	110	(340)
Tax paid	31	(215)
Total adjustments	3,253	865
Net cash from operating activities	964	951

1 Refer to the Overview for details of prior year reclassification.

2 Refer to note C8 for further details.

Reconciliation of movements of liabilities to cash flows arising from financing activities

\$m	Liabilities from financing activities				Total
	Current borrowings	Non-current borrowings	Lease liabilities	Other financial (assets)/ liabilities	
Balance as at 1 July 2020	1,328	5,010	514	(440)	6,412
Repayment of borrowings/other liabilities	(1,348)	-	(76)	306	(1,118)
Foreign exchange adjustments	(114)	(120)	(2)	-	(236)
Reclassification	2,068	(2,068)	-	-	-
Other non-cash movements	4	5	27	53	89
Balance as at 30 June 2021	1,938	2,827	463	(81)	5,147

G7 Auditors' remuneration

During the year, the following fees were paid or payable for services provided by the auditor of the parent entity, its related practices and non-related audit firms.

	2021 \$'000	2020 \$'000
Amounts received or due and receivable by the auditor of the Parent Company and any other entity in the Group for:		
Auditing the statutory financial report of the Parent Company covering the Group	1,998	1,750
Auditing the statutory financial reports of any controlled entities	73	173
Fees for other assurance and agreed-upon-procedures services under other legislation or contractual arrangements	9	9
Fees for other services		
Tax compliance ¹	823	767
Cyber security	-	155
Advisory services ²	900	140
Sustainability compliance	141	-
Other	-	4
Total	3,944	2,998
Amounts received or due and receivable by affiliates of the auditor of the Parent Company for:		
Auditing the statutory financial reports of any controlled entities	69	69
Total fees to overseas member firms of the Parent Company auditor	69	69
Total remuneration to Parent Company auditor	4,013	3,067
Auditing of statutory financial reports of any controlled entities by other auditors	169	247
Total auditors' remuneration	4,182	3,314

1 This amount relates to the Group's share of tax compliance work billed. An amount of \$800,000 (2020: \$701,000) was recharged to APLNG in respect of its share and is excluded from this amount.

2 The fees for non-audit services paid to the auditor of the Parent Company (EY) have increased in the current year. This is a one-off occurrence due to transactional activities that took place in the prior year. As part of the acquisition of Octopus Energy and the associated retail transformation process, an external consulting firm was engaged by the Group to undertake advisory services in respect of this acquisition. In June 2020, midway through the project, the firm engaged by the Group was acquired by EY. As the Group decided it was in the best interest for the project to continue, the audit committee agreed to a one-off approval allowing for continuation of the work, provided the time period and fees were limited. This project completed in the current year and therefore these costs will not reoccur going forward.

G8 Master netting or similar agreements

The Group enters into derivative transactions under ISDA master netting agreements. In general, under such agreements the amounts owed by each counterparty on a single day in respect of all transactions outstanding in the same currency are aggregated into a net amount payable by one party to the other.

Financial assets and liabilities are offset, and the net amount reported in the statement of financial position, where the Group has a legally enforceable right to offset recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The Group has also entered into arrangements that do not meet the criteria for offsetting, but still allow for the related amounts to be offset in certain circumstances, such as a loan default or the termination of a contract.

The following table presents the recognised financial instruments that are offset, or subject to master netting arrangements but not offset, as at the reporting date. The net amount column shows the impact on the Group's statement of financial position if all set-off rights were exercised.

	Gross amount \$m	Amount offset in the statement of financial position \$m	Amount in the statement of financial position \$m	Related amount not offset \$m	Net amount \$m
2021					
Derivative assets	1,488	(353)	1,135	(867)	268
Derivative liabilities	(1,600)	353	(1,247)	867	(380)
2020					
Derivative assets	1,543	(385)	1,158	(650)	508
Derivative liabilities	(1,600)	385	(1,215)	650	(565)

G9 Deed of Cross Guarantee

The parent entity has entered into a Deed of Cross Guarantee through which the Group guarantees the debts of certain controlled entities in the event that one of those entities is wound up. The controlled entities that are party to the Deed are shown in note F1.

The following consolidated statement of comprehensive income and retained profits, and statement of financial position, cover the Company and its controlled entities that are party to the Deed of Cross Guarantee after eliminating all transactions between parties to the Deed.

for the year ended 30 June	2021 \$m	2020 \$m
Consolidated statement of comprehensive income and retained profits		
Revenue	11,966	13,000
Other income	15	47
Expenses	(12,638)	(12,314)
Share of results of equity accounted investees ¹	228	523
Impairment ¹	(1,783)	(669)
Interest income	109	189
Interest expense	(261)	(356)
(Loss)/profit before income tax	(2,364)	420
Income tax expense	(510)	(72)
(Loss)/profit for the year	(2,874)	348
Other comprehensive income	-	-
Total comprehensive income for the year	(2,874)	348
Retained earnings at the beginning of the year	5,604	5,433
Adjustments for entities entering the Deed of Cross Guarantee	-	2
Retained earnings at the beginning of the year	5,604	5,435
Impact of AASB 16 <i>Leases</i> adoption	-	349
Dividends paid	(396)	(528)
Retained earnings at the end of the year	2,334	5,604

¹ Refer to the Overview for details of prior year reclassification.

G9 Deed of Cross Guarantee (continued)

as at 30 June	2021 \$m	2020 \$m
Statement of financial position		
Current assets		
Cash and cash equivalents	286	1,042
Trade and other receivables	3,304	2,916
Inventories	102	152
Derivatives	667	510
Other financial assets	491	479
Income tax receivable	7	89
Other assets	117	104
Total current assets	4,974	5,292
Non-current assets		
Trade and other receivables	1,537	2,711
Derivatives	302	525
Other financial assets ¹	1,074	1,842
Investments accounted for using the equity method	6,543	6,979
PP&E	3,077	4,060
Intangible assets	4,357	5,394
Deferred tax assets	-	360
Other assets	47	40
Total non-current assets	16,937	21,911
Total assets	21,911	27,203
Current liabilities		
Trade and other payables	2,443	2,273
Payables to joint ventures	169	202
Interest-bearing liabilities	72	74
Derivatives	523	448
Other financial liabilities	311	204
Provision for income tax	1	2
Employee benefits	221	153
Provisions	38	153
Total current liabilities	3,778	3,509
Non-current liabilities		
Trade and other payables	5,314	7,204
Interest-bearing liabilities	926	1,001
Derivatives	402	729
Deferred tax liabilities	291	-
Employee benefits	44	21
Provisions	1,177	1,269
Total non-current liabilities	8,154	10,224
Total liabilities	11,932	13,733
Net assets	9,979	13,470
Equity		
Contributed equity	7,138	7,145
Reserves	507	721
Retained earnings	2,334	5,604
Total equity	9,979	13,470

1 Includes investment in subsidiaries relating to entities outside the Deed of Cross Guarantee.

G10 Parent entity disclosures

The following table sets out the results and financial position of the parent entity, Origin Energy Limited.

Origin Energy Limited	2021 \$m	2020 \$m
(Loss)/profit before income tax	(1,428)	1,167
Other comprehensive income, net of income tax	(657)	108
Total comprehensive income for the year	(2,085)	1,275
Financial position of the parent entity at year end		
Current assets	271	1,307
Non-current assets	16,771	19,084
Total assets	17,042	20,391
Current liabilities	3,364	2,683
Non-current liabilities	3,626	5,171
Total liabilities	6,990	7,854
Contributed equity	7,138	7,145
Share-based payments reserve	226	223
Foreign currency translation reserve	189	863
Hedge reserve	(33)	(47)
Fair value reserve	3	-
Retained earnings ¹	2,529	4,353
Total equity	10,052	12,537

¹ Refer to note A7 for details of dividends provided for or paid of \$396 million.

The parent entity has entered into a deed of indemnity for the cross-guarantee of liabilities of a number of controlled entities. Refer to note F1.

G11 Subsequent events

Other than the matters described below, no item, transaction or event of a material nature has arisen since 30 June 2021 that would significantly affect the operations of the Group, the results of those operations, or the state of affairs of the Group, in future financial periods.

Dividends

On 19 August 2021, the Directors determined an unfranked final dividend of 7.5 cents per share on ordinary shares. The dividend will be paid on 1 October 2021. The financial effect of this dividend has not been brought to account in the financial statements for the year ended 30 June 2021 and will be recognised in subsequent financial statements.

Directors' Declaration

1. In the opinion of the Directors of Origin Energy Limited (the Company):
 - a. the consolidated financial statements and notes are in accordance with the *Corporations Act 2001* (Cth), including:
 - i. giving a true and fair view of the financial position of the Group as at 30 June 2021 and of its performance, for the year ended on that date; and
 - ii. complying with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Corporations Regulations 2001 (Cth).
 - b. the consolidated financial statements also comply with International Financial Reporting Standards as disclosed in the Overview of the consolidated financial statements; and
 - c. there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.
2. There are reasonable grounds to believe that the Company and the controlled entities identified in note F1 will be able to meet any obligations or liabilities to which they are or may become subject to by virtue of the Deed of Cross Guarantee between the Company and those controlled entities pursuant to ASIC Corporations (Wholly-owned Companies) Instrument 2016/785.
3. The Directors have been given the declarations required by section 295A of the *Corporations Act 2001* (Cth) from the Chief Executive Officer and the Chief Financial Officer for the financial year ended 30 June 2021.

Signed in accordance with a resolution of the Directors:



Scott Perkins

Chairman Director

Sydney, 19 August 2021

Independent Auditor's Report



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Independent Auditor's Report to the Members of Origin Energy Limited Report on the Audit of the Financial Report

Opinion

We have audited the financial report of Origin Energy Limited (the Company) and its subsidiaries (collectively the Group), which comprises the consolidated statement of financial position as at 30 June 2021, the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the *Corporations Act 2001*, including:

- a. Giving a true and fair view of the consolidated financial position of the Group as at 30 June 2021 and of its consolidated financial performance for the year ended on that date; and
- b. Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's *APES 110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

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

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial report of the current year. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial report* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial report. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial report.



Carrying Value of the Energy Markets Group of Cash Generating Unit (CGU)

Why significant

In accordance with the requirements of Australian Accounting Standards, the Group is required to test all CGUs annually for impairment where goodwill is present. The Group assesses the recoverable amount of each CGU using a discounted cash flow forecast to determine value in use.

As disclosed in Note C8 to the financial statements, as a result of changing market conditions and reduced pricing forecasts, the Group has recognised a \$1,828 million impairment charge on its Retail and Generation CGUs, which form part of the Energy Markets group of CGUs.

Assumptions used in the forecast cash flows are highly judgmental and inherently subjective. As disclosed in Note C8, small changes in key assumptions can lead to significant changes in the recoverable amount of these assets.

As a result, we considered the impairment testing of the Energy Markets group of CGUs and the related disclosures in the financial report to be particularly significant to our audit.

How our audit addressed the key audit matter

Our audit procedures included the following:

- ▶ Assessed whether the methodology used by the Group met the requirements of Australian Accounting Standards.
- ▶ Assessed the basis for the determination of the Group's CGUs based on our understanding of the nature of the Group's business, the interdependence of cash flows, and the economic environment in which it operates.
- ▶ Tested the mathematical accuracy of the discounted cash flow models.
- ▶ Assessed the cash flow forecasts with reference to historical budgeting accuracy and current trading performance, historical growth rates, historical operating results, market data and forecasts, ratio analysis, and discussions with Origin management and senior executives.
- ▶ Where long term supply or sales contracts are in place, agreed the forecast revenue and costs to the contract terms and rates.
- ▶ For Generation, compared the useful lives of assets to AEMO closure dates.
- ▶ Involved our energy market modelling specialists to assess the conclusions reached by the Group's internal specialists in respect of forecast energy prices, forecast generation volumes, cap revenue and marginal loss factors.
- ▶ Involved our valuation specialists to:
 - Assess the discount rates, growth rates and terminal growth rates with reference to publicly available information on comparable companies in the industry and markets in which the Group operates; and
 - Perform sensitivity analyses and evaluated whether any reasonably possible changes in assumptions could cause the carrying amount of the cash generating unit to exceed its recoverable amount.
- ▶ Evaluated the adequacy of the related disclosure in the financial report.



Carrying Value of the APLNG Equity Accounted Investment

Why significant

At 30 June 2021, the Group's equity accounted investment in APLNG had a carrying value of \$6,532 million. The Group estimated the recoverable amount of this investment, using a fair value less cost of disposal (FVLCD) approach and concluded that no impairment or impairment reversal was required.

As disclosed in Note B2.2, the estimate of FVLCD involves significant judgment and is based on modelling a range of forecast assumptions and estimates which are inherently difficult to determine with precision. Such forecasts include future oil and gas prices, foreign exchange rates, discount rates, production and development costs, and reserves and resources.

Oil price is a significant assumption used in the impairment testing and is inherently subjective. In times of economic uncertainty, as the COVID-19 pandemic has brought, the degree of subjectivity in determining forecast pricing is higher than it might otherwise be. Changes in this assumption can lead to significant changes in the recoverable amount.

Due to the significance of this investment relative to total assets and the inherent complexity and level of judgment required in forecasting future cash flows, we considered this to be a key audit matter

How our audit addressed the key audit matter

In completing our audit procedures, with the assistance of our valuation specialists, we:

- ▶ Considered whether indicators of impairment (or reversal) were present in respect of the equity accounted investment.
- ▶ Evaluated whether the methodology applied in determining FVLCD complied with the requirements of Australian Accounting Standards.
- ▶ Assessed the mathematical accuracy of the valuation model, the recoverable amount calculation and the headroom implied in the model.
- ▶ Assessed the macroeconomic assumptions adopted, including oil price, gas price and foreign exchange, with reference to broker and analyst data and publicly available peer company information.
- ▶ Evaluated the discount rate adopted with reference to external market data including government bond rates and comparable company data.
- ▶ Agreed the production profile, operating cost and capital expenditure forecasts in the impairment model to the optimised Upstream Development Plan ("UDP"), prepared by the Group, in its capacity as the operator of APLNG's upstream joint venture.
- ▶ Considered the key assumptions in the UDP including:
 - Comparison of forecast operating costs to APLNG's recent operating cost history;
 - Consideration of timing and amount of forecast capital costs with reference to:
 - APLNG's gas production profile, its existing inventory of producing wells and forecast development of production wells; and
 - UDPs from previous financial years;
 - Understood APLNG's process for gas reserve and resource measurement including its internal technical assurance processes and reconciliation to its most recent independent review of reserves and resources as at 30 June 2021; and
 - Evaluated the competence, capabilities and objectivity of the internal and external experts used by the Group to measure its gas reserves and resources.
- ▶ Considered available market information including trading and reserve multiples as a cross check of the carrying value of Origin's equity accounted investment.



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APLNG Deferred Tax Liability

Why significant

At 30 June 2021 the Group recognised a deferred tax liability (DTL) of \$669 million in respect of the temporary taxable difference arising on its equity accounted investment in APLNG. \$810 million remains unrecognised.

As disclosed in Note E1, the amount recognised represents the equity accounted earnings that are expected to be distributed to Origin via dividends from APLNG in the foreseeable future.

The determination of the value of the DTL recognised requires a significant degree of judgment in forecasting future dividends and profits from APLNG over the foreseeable future. The future cash flow modelling performed for the Carrying Value of APLNG Equity Accounted Investment assessment (as outlined above) forms the basis of this assessment.

As a result of the level of judgment required and the value of the DTL recognised, we considered this a key audit matter.

Unbilled Revenue

Why significant

At 30 June 2021, the Group recognised unbilled revenue net of allowance for impairment of \$1,444 million as disclosed in Note C1.

Unbilled revenue represents the value of energy supplied to customers between the date of the last meter read and the reporting date where no bill has been issued to the customer at the end of the reporting period.

The estimation of unbilled revenue is considered a key audit matter due to the complex estimation process and significant audit effort required to address the estimation uncertainty. Key factors that require consideration impacting the complex estimation process include:

How our audit addressed the key audit matter

Our audit procedures included the following:

- ▶ Evaluated whether the methodology applied in determining the value of the DTL recognised, complied with the requirements of Australian Accounting Standards.
- ▶ Recalculated the total taxable temporary difference with reference to the carrying value of the investment in APLNG at 30 June 2021 and the tax cost base.
- ▶ Assessed the forecast future dividends and forecast future profits from APLNG, using the cash flow modelling prepared and referred to above as part of the Carrying Value of APLNG Equity Accounted Investment assessment.
- ▶ Tested the clerical accuracy of the \$669 million DTL recognised based on the forecast dividends from APLNG and timing of when those dividends will be paid out of existing equity accounted earnings.
- ▶ Assessed the timeframe the Group has applied when forecasting the expected dividends, including assessing the appropriateness of major operating and capex decisions and sales contracts currently in place.
- ▶ Evaluated the adequacy of the related disclosure in the financial report.

How our audit addressed the key audit matter

Our audit procedures included the following:

- ▶ Assessed whether the methodology used to recognise unbilled revenue met the requirements of Australian Accounting Standards.
- ▶ Assessed the effectiveness of the Group's controls governing energy purchased, energy sold and the customer pricing process.
- ▶ Tested the unbilled revenue calculation by:
 - With the assistance of specialists, assessing the calculation methodology and calculation mechanics.
 - Comparing inputs used in the calculation to supporting data such as historical temperature data and volume data provided by the Australian Energy Market Operator (AEMO).
 - Compared the prices applied to customer consumption with historical and current data.



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Unbilled Revenue (continued)

Why significant	How our audit addressed the key audit matter
<ul style="list-style-type: none"> ▶ Estimation of customer demand which is impacted by weather and an individual customer's circumstances. ▶ Application of different customer rates across different regulated and unregulated markets. ▶ Changes in energy consumption patterns compared to the same period in the prior year, particularly due to the ongoing impacts of COVID-19. <p>The Group's disclosures in respect of the unbilled revenue estimation process are included in Note C1 of the financial report.</p>	<ul style="list-style-type: none"> ○ Reviewed the Group's reconciliation of volumes acquired from AEMO against volumes sold and volumes purchased as used by the Group in their analysis. ○ Compared the accuracy of the unbilled revenue accrual by comparing the historical accrual to final billing data and performing a trend analysis of the accrual year on year. ○ Tested the accuracy of the unbilled revenue accrual for business customers by comparing the unbilled revenue accrual to subsequent invoices. <p>▶ Evaluated the adequacy of the related disclosures in the financial report including those made with respect to judgements and estimates.</p>

Information Other than the Financial Report and Auditor's Report Thereon

The directors are responsible for the other information. The other information comprises the information included in the Company's 2021 annual report, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.



Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- ▶ Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- ▶ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- ▶ Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- ▶ Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.
- ▶ Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.



From the matters communicated to the directors, we determine those matters that were of most significance in the audit of the financial report of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on the Audit of the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2021.

In our opinion, the Remuneration Report of Origin Energy Limited for the year ended 30 June 2021, complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

Ernst & Young

Ernst & Young

A handwritten signature in black ink, appearing to read 'APR', is written over the printed name 'Andrew Price'.

Andrew Price

Partner

Sydney

19 August 2021

Share and Shareholder Information



The information set out below was applicable as at 30 July 2021.

Corporate Governance Statement

The Company's Corporate Governance Statement can be found on its website at originenergy.com.au/about/investors-media/governance

Substantial shareholders

As at 30 July 2021, the Company received notice of one substantial holder: AustralianSuper Pty Ltd, holding 109,662,324 shares in the Company's issued capital.

Number of equity securities holders and voting rights

As at 30 July 2021 there were:

- 157,585 holders of 1,761,211,071 ordinary shares in the Company;
- 23 holders of 3,105,221 Options, 77 holders of 5,596,599 Performance Share Rights, 1 holder of 45,556 Deferred Share Rights, 58 holders of 984,324 Restricted Share Rights; and
- 710 holders of 371,801 Matching Share Rights.

Only ordinary shares of the Company are quoted. Only holders of ordinary shares are entitled to attend and vote at a meeting of members.

Voting rights of members

At a meeting of members, each member who is entitled to attend and vote may attend and vote in person or by proxy, attorney or representative. On a show of hands, every person present who is a member, proxy, attorney or representative, shall have one vote; and on a poll, every member who is present in person or by proxy, attorney or representative shall have one vote for each fully paid ordinary share held. No other equity securities hold voting rights.

Please note that the 2021 Annual General Meeting will be held online. This is in line with Australian Government guidelines in relation to COVID-19.

Analysis of holdings

Fully paid ordinary shares

Holdings ranges	Holders	Total Units	%
1-1,000	65,885	28,651,000	1.63
1,001-5,000	64,561	158,181,891	8.98
5,001-10,000	16,211	116,344,886	6.61
10,001-100,000	10,637	222,768,606	12.65
100,001-999,999,999	291	1,235,264,688	70.14
Totals	157,585	1,761,211,071	100.00

Options

Holdings ranges	Holders	Total Units	%
1-1,000	0	0	0.00
1,001-5,000	0	0	0.00
5,001-10,000	0	0	0.00
10,001-100,000	12	786,499	25.33
100,001-999,999,999	11	2,318,722	74.67
Totals	23	3,105,221	100.00

Deferred share rights

Holdings ranges	Holders	Total Units	%
1-1,000	0	0	0.00
1,001-5,000	0	0	0.00
5,001-10,000	0	0	0.00
10,001-100,000	1	45,556	100.00
100,001-999,999,999	0	0	0.00
Totals	1	45,556	100.00

Performance share rights

Holdings ranges	Holders	Total Units	%
1-1,000	0	0	0.00
1,001-5,000	0	0	0.00
5,001-10,000	7	47,247	0.84
10,001-100,000	59	2,584,385	46.18
100,001-999,999,999	11	2,964,967	52.98
Totals	77	5,596,599	100.00

Restricted Share rights

Holdings ranges	Holders	Total Units	%
1-1,000	0	0	0
1,001-5,000	0	0	0
5,001-10,000	25	152,988	15.54
10,001-100,000	32	647,922	65.82
100,001-999,999,999	1	183,414	18.63
Totals	58	984,324	100.00

Matching Share Plan matched rights

Holdings ranges	Holders	Total Units	%
1-1,000	710	371,801	100.00
1,001-5,000	0	0	0.00
5,001-10,000	0	0	0.00
10,001-100,000	0	0	0.00
100,001-999,999,999	0	0	0.00
Totals	710	371,801	100.00

Unmarketable parcels

12,214 shareholders held less than a marketable parcel as at 30 July 2021.

Top 20 holdings

Shareholder	Number of shares	% of issued shares
J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	424,959,024	24.13%
HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	422,095,849	23.97%
CITICORP NOMINEES PTY LIMITED	133,425,054	7.58%
NATIONAL NOMINEES LIMITED	51,359,297	2.92%
BNP PARIBAS NOMINEES PTY LTD <AGENCY LENDING DRP A/C>	23,371,868	1.33%
BNP PARIBAS NOMS PTY LTD <DRP>	13,989,026	0.79%
CITICORP NOMINEES PTY LIMITED <COLONIAL FIRST STATE INV A/C>	12,307,849	0.70%
ARGO INVESTMENTS LIMITED	11,351,603	0.65%
BNP PARIBAS NOMINEES PTY LTD SIX SIS LTD <DRP A/C>	10,447,814	0.59%
HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	10,005,432	0.57%
CERTANE CT PTY LTD <ORIGIN ENERGY ESP ALLOCATED>	7,348,901	0.42%
CERTANE CT PTY LTD <ORIGIN ENERGY ESP UNALLOC>	6,109,232	0.35%
NETWEALTH INVESTMENTS LIMITED <WRAP SERVICES A/C>	6,086,166	0.35%
AUSTRALIAN FOUNDATION INVESTMENT COMPANY LIMITED	6,000,000	0.34%
BNP PARIBAS NOMINEES PTY LTD <HUB24 CUSTODIAL SERV LTD>	5,389,715	0.31%
THE SENIOR MASTER OF THE SUPREME COURT <COMMON FUND NO 3 A/C>	3,850,660	0.22%
AMP LIFE LIMITED	3,000,820	0.17%
BOND STREET CUSTODIANS LIMITED <COCKEJ - F01832 A/C>	2,343,971	0.13%
BRISLOT NOMINEES PTY LTD <HOUSE HEAD NOMINEE A/C>	2,253,019	0.13%
FIRST SAMUEL LTD ACN 086243567 <ANF ITS MDA CLIENTS A/C>	1,875,737	0.11%

Securities exchange listing

Origin shares are traded on the Australian Securities Exchange Limited (ASX). The symbol under which Origin shares are traded is 'ORG'.

Escrowed securities

There are no securities subject to voluntary escrow as at the date of this Report.

On-market buy-back

There is no current on-market buy-back of Origin shares.

On-market purchases for employee equity plans

During the reporting period, 8,886,660 Origin shares were purchased on-market for the purpose of Origin's employee incentive plans. The average price per share purchased was \$4.61.

Shareholder enquiries

For information about your shareholding, to notify a change of address, to make changes to your dividend payment instructions or for any other shareholder enquiries, you should contact Origin Energy's share registry, Boardroom Pty Ltd on 1300 664 446. Please note that broker-sponsored holders are required to contact their broker to amend their address.

When contacting the share registry, shareholders should quote their security holder reference number, which can be found on the holding or dividend statements.

Shareholders with internet access can update and obtain information regarding their shareholding online at www.originenergy.com.au/about/investors-media

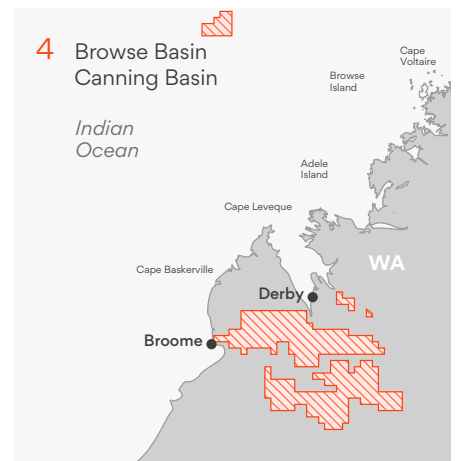
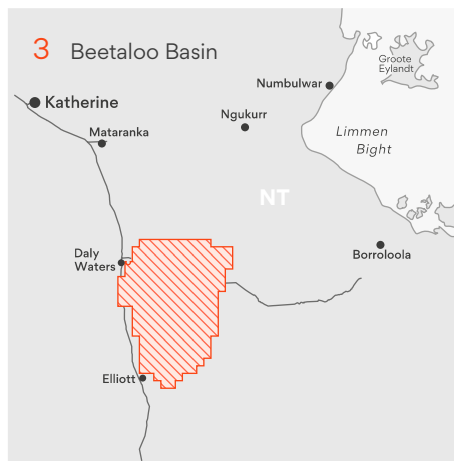
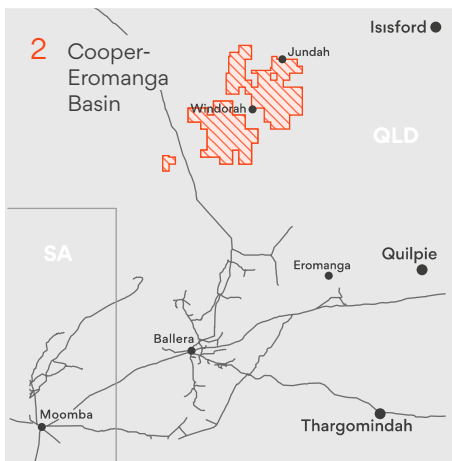
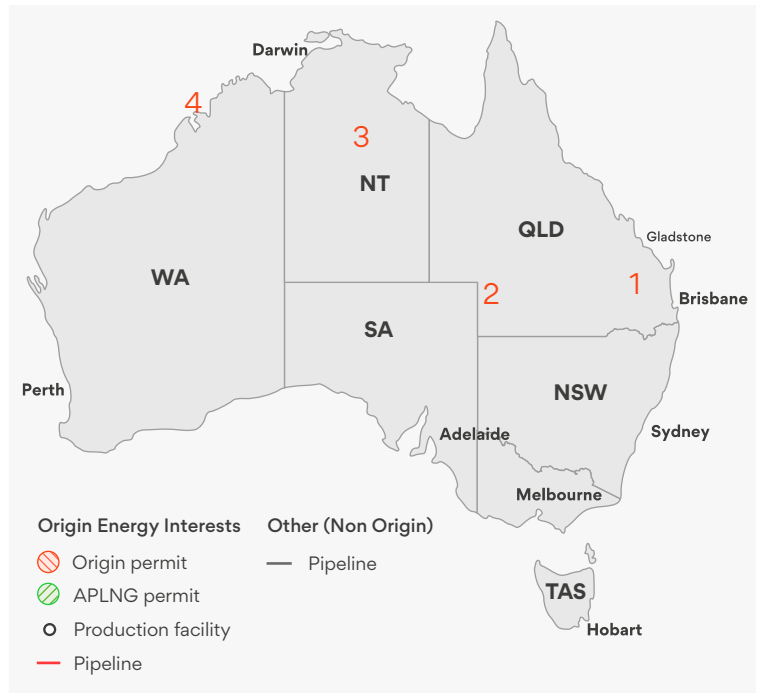
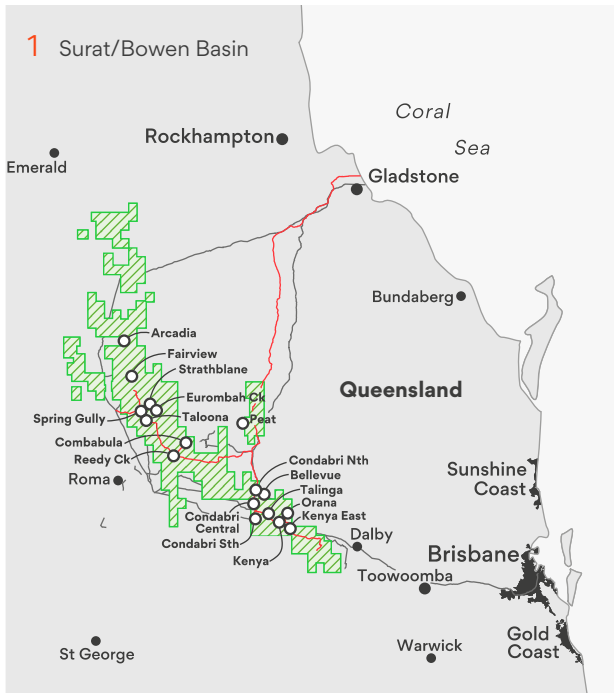
Tax File Number

For resident shareholders who have not provided the share registry with their Tax File Number (TFN) or exemption category details, tax at the top marginal tax rate (plus Medicare levy) will be deducted from dividends to the extent they are not fully franked. For those shareholders who have not provided their TFN or exemption category details, forms are available from the share registry. Shareholders are not obliged to provide this information if they do not wish to do so.

Information on Origin

The main source of information for shareholders is the Annual Report. The Annual Report will be provided to shareholders on request and free of charge. Shareholders not wishing to receive the Annual Report should advise the share registry in writing so that their names can be removed from the mailing list. Origin's website (www.originenergy.com.au) is another source of information for shareholders.

Exploration and Production Permits and Data



1 Origin's Australian interests

Origin held interests in the following permits at 30 June 2021.

Basin/Project Area	Interest		Basin/Project Area	Interest		Basin/Project Area	Interest	
Queensland			Queensland (continued)			Queensland (continued)		
Surat/Bowen basins			Gladstone LNG			Cooper-Eromanga Basin		
Angry Jungle			PFL 20	37.50%	1	ATPs 736, 737, 738, 2025 and 2026	75.00%	*
ATP 631; PLs 281 and 282	6.79%	1	PPLs 162 and 163	37.50%	* 1	PL(A)s 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103 and 1104	99.00%	*
Carinya and Ramyard			Ironbark			ATP 784	100%	*
ATP 972; PL 470; PL(A)s 469 and 471	34.77%	* 1	ATP 788; PL(A) 1106 (Deeps)	9.38%	* 1			
ATP 973	37.50%	* 1	ATP 788; PL(A) 1106 (Shallows)	37.50%	* 1			
Combabula/Reedy Creek/Peat and Taroom East			Kenya/Kenya East/Bellevue and Anya			Northern Territory		
ATP 2047	18.75%	1	PL 247	11.02%	1	Beetaloo Basin		
ATP 606; PLs 297, 403, 404, 405, 407, 408, 412, and 413; PL(A)s 406 and 444	34.77%	* 1	PFL 19	11.72%	1	EPs 76, 98 and 117	77.50%	*
PL 101	37.50%	* 1	PL 1025	11.72%	1	Western Australia		
PPL 178	37.50%	* 1	PLs 257, 273, 274, 275, 278, 279, 442, 466, 474 and 503 (Shallows)	11.72%	1	Browse Basin		
Condabri			PLs 179, 180, 228, 229 and 263	15.23%	1	TR/7 and TR/8; WA-90-R, WA-91-R and WA-92-R	40.00%	
PLs 265, 266, 267, 1011, 1018 and 1084	37.50%	* 1	PPLs 107, 176, 2014 and 2063	15.23%	1	Canning Basin		
PPLs 177, 185, 186, 2000 and 2059	37.50%	* 1	Membrane and Lonesome			EPs 129, 391, 428, 431 and 436	50.00%	
Denison Trough			ATP 804	10.99%	1	South Australia		
ATP 1191 Farm-out (Mahalo block)	11.25%	1	PLs 219 and 220	37.50%	* 1	Geothermal		
PLs 1082 and 1083 (Mahalo block)	11.25%	* 1	Spring Gully			GRL 3	30.00%	
ATP 1191; PLs 450, 451, 457 and 1012; PL(A) 1062	18.75%	1	ATP 592; PLs 195, 268, 414, 415, 416, 417 and 418; PL(A) 419	35.44%	* 1	Notes:		
PL 1083	18.75%	* 1	PL 200	35.89%	* 1	* Operatorship		
PLs 43, 44, 45, 183 and 218 (Deeps)	18.75%	* 1	PL 204	37.40%	* 1	1 Interest held through 37.5 per cent ownership of Australian Pacific LNG Joint Venture		
Fairview and Arcadia			PPLs 143, 180 and 2026	37.50%	* 1			
ATPs 745 and 2033; PLs 420, 421 and 440; PL(A) 1059	8.94%	1	Talinga and Orana					
ATPs 526 and 2012; PLs 90, 91, 92, 99, 100, 232, 233, 234, 235 and 236; PL(A) 1017	8.97%	1	ATP 692; PLs 209, 215, 216, 225, 226 and 272; PL(A) 445	37.50%	* 1			
			PFL 26	37.50%	* 1			
			PPLs 171, 181 and 2032	37.50%	* 1			

Annual Reserves Report

For the year ended 30 June 2021



1 Reserves and resources

This *Annual Reserves Report* provides an update on the reserves and resources of Origin Energy Limited (Origin) and its share of Australia Pacific LNG Pty Limited (APLNG), as at 30 June 2021.

1.1 Highlights

APLNG (Origin 37.5 per cent share)

- Strong field performance resulted in 94 per cent 2P (proved plus probable) reserves replacement in both operated and non-operated areas. During FY2021, APLNG also achieved record daily production rates on two occasions. A detailed breakdown of movements in Origin's share of APLNG 2P reserves is as follows:
 - 211 PJ (6 per cent) upward revision of operated 2P reserves before production reflecting strong field performance, resulting in improved estimated recovery from producing fields and maturation of resources to reserves;
 - 35 PJ (5 per cent) increase in non-operated 2P reserves before production, primarily due to improved field performance in several areas; and
 - 263 PJ of production that was stable with FY2020 despite a significant reduction in development activity and costs.
- 2P reserve life of 16 years as at 30 June 2021, based on FY2021 annual production of 701 PJ.
- 2P reserves replacement of 90 per cent in operated fields over the last four years, primarily driven by strong performance in producing fields, along with additional areas shown to be feasible for development through appraisal activities.
- Developed 2P reserves accounted for 60 per cent of total 2P reserves as at 30 June 2021.
- Origin's share of 1P (proved) reserves has continued to grow, with an increase of 9 per cent or 249 PJ before production as a result of development drilling. 1P reserves represent 60 per cent of total 3P (proved plus probable plus possible) reserves as at 30 June 2021.
- APLNG also continues to mature its strong resource base with further exploration and appraisal activities, as well as technology trials and a continued focus on reducing operating and capital costs.

1.2 2P reserves (Origin share)

2P reserves decreased by 16 PJ after production to a total of 4,252 PJ, compared to 30 June 2020.

Origin 2P reserves by area

APLNG (PJ)	2P 30/06/2020	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	2P 30/06/2021
Operated Assets	3,577	-	-	211	(201)	3,587
Spring Gully & Denison Asset	624	-	-	4	(36)	591
Condabri, Talinga & Orana Asset	1,411	-	-	151	(99)	1,463
Reedy Creek, Combabula & Peat Asset	1,542	-	-	57	(66)	1,533
Non-Operated Assets	691	-	-	35	(61)	665
Total 2P	4,268	-	-	247	(263)	4,252

- Summary of 2P reserves movement - key changes include:
 - 263 PJ decrease due to production;
 - 211 PJ positive revision across all operated areas, reflecting:
 - improved understanding of field behaviour, coupled with strong field performance, which resulted in an increase in estimated recovery from producing fields in Combabula-Reedy Creek, Condabri and Talinga Orana areas; and
 - the maturation of new areas from resources to reserves including Ramyard South (within Reedy Creek, Combabula and Peat) and the Spring Gully East Flank (within Spring Gully and Denison) following successful appraisal activities; and
 - 35 PJ increase in non-operated areas, primarily due to improved field performance in several areas.
- As at 30 June 2021, developed 2P reserves represented 60 per cent of total 2P reserves.
- As at 30 June 2021, 100 per cent of Origin's share of 2P reserves are unconventional gas located in the Surat and Bowen Basins.

Origin 2P reserves by development type

APLNG (PJ)			Total 2P			Total 2P
	Developed	Undeveloped	30-6-2020	Developed	Undeveloped	30-6-2021
Operated Assets	2,094	1,483	3,577	2,173	1,414	3,587
Spring Gully & Denison Asset	442	182	624	453	138	591
Condabri, Talinga & Orana Asset	976	435	1,411	1,031	432	1,463
Reedy Creek, Combabula & Peat Asset	676	866	1,542	689	844	1,533
Non-Operated Assets	394	297	691	393	273	665
Total 2P	2,488	1,780	4,268	2,566	1,686	4,252

1.3 1P reserves (Origin share)

1P reserves increased by 249 PJ or 9 per cent before production and decreased by 14 PJ after production to 2,755 PJ, compared to 30 June 2020.

As at 30 June 2021, developed 1P reserves represented 88 per cent of total 1P reserves. The remaining 12 per cent of 1P reserves represents wells that have been spudded but not connected or planned wells that are immediately adjacent to drilled wells. 100 per cent of 1P reserves are unconventional gas located in the Surat and Bowen Basins.

Origin 1P reserves by area

APLNG (PJ)	1P 30/06/2020	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	1P 30/06/2021
Operated Assets	2,243	-	-	161	(201)	2,203
Spring Gully & Denison Asset	456	-	-	(8)	(36)	412
Condabri, Talinga & Orana Asset	1,026	-	-	196	(99)	1,124
Reedy Creek, Combabula & Peat Asset	761	-	-	(27)	(66)	667
Non-Operated Assets	526	-	-	88	(61)	553
Total 1P	2,769	-	-	249	(263)	2,755

Origin 1P reserves by development type

APLNG (PJ)			Total 1P			Total 1P
	Developed	Undeveloped	30-6-2020	Developed	Undeveloped	30-6-2021
Operated Assets	2,091	152	2,243	2,046	157	2,203
Spring Gully & Denison Asset	442	14	456	402	10	412
Condabri, Talinga & Orana Asset	975	51	1,026	1,020	104	1,124
Reedy Creek, Combabula & Peat Asset	674	87	761	624	43	667
Non-Operated Assets	387	139	526	383	170	553
Total 1P	2,478	291	2,769	2,428	327	2,755

1.4 2C contingent resources for Origin Energy**Beetaloo Basin**

A material contingent resource announcement of 6.6 Tscf (gross) or 2.3 Tscf (net) for the Beetaloo Basin was provided on 15 February 2017 to the ASX:

<https://www.asx.com.au/asxpdf/20170215/pdf/43g0qhh87j71bb.pdf>

Origin increased its interest in the Beetaloo Joint Venture to 70 per cent in May 2017 by acquiring Sasol's 35 per cent share:

<https://www.asx.com.au/asxpdf/20170505/pdf/43j1ss71xqbxtc.pdf>

During FY2020 Origin further increased its interest in the Beetaloo Joint Venture to 77.5 per cent by acquiring 7.5 per cent of the interest owned by Falcon Oil and Gas:

<https://www.asx.com.au/asxpdf/20200407/pdf/44gs08yfdwfrjp.pdf>

Refer to the Operating and Financial Review, released on the same date as this report, for details of the current status of the Beetaloo Basin asset.

Appendix A: APLNG reserves and resources

Origin, as APLNG upstream operator, has prepared estimates of the reserves and resources held by APLNG for operated assets detailed in this report.

Netherland, Sewell & Associates, Inc. (NSAI) has prepared a consolidated report of the reserves and resources held by APLNG for non-operated assets. The reserves and resources estimates for the non-operated properties in their report have been independently estimated by NSAI.

The tables below provide 1P, 2P and 3P reserves and 2C resources for APLNG (100 per cent) and Origin's 37.5 per cent interest in these APLNG (operated and non-operated) reserves and resources.

Reserves and resources held by APLNG (100 per cent share)

Reserves/resource classification	30/06/2020	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	30/06/2021
1P (proven)	7,384	-	-	665	(701)	7,348
2P (proven plus probable)	11,381	-	-	658	(701)	11,339
3P (proven plus probable plus possible)	12,071	-	-	834	(701)	12,204
2C (best estimate contingent resource)	3,980	-	-	(378)	-	3,602

Reserves and resources held by Origin (37.5 per cent in APLNG)

Reserves/resource classification	30/06/2020	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	30/06/2021
1P (proven)	2,769	-	-	249	(263)	2,755
2P (proven plus probable)	4,268	-	-	247	(263)	4,252
3P (proven plus probable plus possible)	4,526	-	-	313	(263)	4,576
2C (best estimate contingent resource)	1,493	-	-	(142)	-	1,351

See details above for movements in 1P and 2P reserves.

The 834 PJ increase in APLNG (100 per cent share) 3P reserves, excluding production is due to improved understanding of field behaviour, coupled with strong field performance, which has resulted in an increase in estimated recovery from producing areas as well as maturation of contingent resources to reserves through successful appraisal activities.

The 378 PJ decrease in APLNG (100 per cent share) 2C resources is primarily due to successful appraisal activities that allowed maturation of resources to reserves, whilst also reflecting the decision by the operator of selected non-operated developments to sole risk these developments.

Appendix B: Notes relating to this report

a. Methodology regarding reserves and resources

The Reserves Report has been prepared to be consistent with the Petroleum Resources Management System (PRMS) 2018 published by the Society of Petroleum Engineers (SPE). This document may be downloaded from the SPE website: <https://www.spe.org/en/industry/reserves/>. Additionally, this Reserves Report has been prepared to be consistent with the ASX reporting guidelines. For all assets, Origin reports reserves and resources consistent with SPE guidelines as follows: proved reserves (1P); proved plus probable reserves (2P); proved plus probable plus possible reserves (3P) and best estimate contingent resource (2C). Reserves must be discovered, recoverable, commercial and remaining.

The CSG reserves and resources held within APLNG's properties have either been independently prepared by NSAI or prepared by Origin. The reserves and resources estimates contained in this report have been prepared in accordance with the standards, definitions and guidelines contained within the PRMS and generally accepted petroleum engineering and evaluation principles as set out in the SPE Reserves Auditing Standards.

Origin does not intend to report prospective or undiscovered resources as defined by the SPE in any of its areas of interest on an ongoing basis.

b. Economic test for reserves

The assessment of reserves requires a commercial test to establish that reserves can be economically recovered. Within the commercial test, operating cost and capital cost estimates are combined with fiscal regimes and product pricing to confirm the economic viability of producing the reserves.

Gas reserves are assessed against existing contractual arrangements and local market conditions, as appropriate. In the case of gas reserves where contracts are not in place, a forward price scenario based on monetisation of the reserves through domestic markets has been used, including power generation opportunities, direct sales to LNG and other end users, and utilisation of Origin's wholesale and retail channels to market.

For CSG reserves that are intended to supply the APLNG CSG to LNG project, the economic test is based on a weighted average price across domestic, spot and LNG contracts, less short run marginal costs

for downstream transport and processing. This price is exposed to changes in the supply/demand balance in the market through oil price-linked LNG contracts.

c. Reversionary rights

The CSG interests that APLNG acquired from Tri-Star in 2002 are subject to reversionary rights. If triggered, these rights will require APLNG to transfer back to Tri-Star a 45 per cent interest in those CSG interests for no additional consideration. Origin has assessed the potential impact of these reversionary rights, based on economic tests consistent with the reserves and resources referable to the CSG interests, and based on that assessment does not consider that the existence of these reversionary rights impacts the reserves and resources quoted in this report. Tri-Star has commenced proceedings against APLNG claiming that reversion has occurred. APLNG denies that reversion has occurred and is defending the claim.¹

d. Information regarding the preparation of this Reserves Report

The CSG reserves and resources held within APLNG's properties have either been independently prepared by NSAI or by Origin. All assessments are based on technical, commercial and operational data provided by Origin on behalf of APLNG.

The statements in this Report relating to reserves and resources as at 30 June 2021 for APLNG's interests in non-operated assets are based on information in the NSAI report dated 4 August 2021. The data has been compiled by Mr John Hattner, a full-time employee of NSAI. Mr Hattner has consented to the statements based on this information, and to the form and context in which these statements appear.

The statements in this Report relating to reserves and resources for other assets are based on, and fairly represent, information and supporting documentation prepared by, or under the supervision of qualified petroleum reserves and resource evaluators who are employees of Origin.

This Reserves Statement as a whole has been approved by Mr Alistair Jones CPEng RPEQ, who is a full-time employee of Origin. Mr Jones is Resource Assessment Lead, a qualified petroleum reserves and resources evaluator and a member of the Society of Petroleum Engineers, has consented to the form and context in which these statements appear.

e. Rounding

Information on reserves is quoted in this report rounded to the nearest whole number. Some totals in tables in this report may not add due to rounding. Items that round to zero are represented by the number 0, while items that are actually zero are represented with a dash "-".

f. Abbreviations

bbl	barrel
Tscf	trillion standard cubic feet
CSG	coal seam gas
kbbbls	kilo barrels = 1,000 barrels
ktonnes	kilo tonnes = 1,000 tonnes
mamboe	million barrels of oil equivalent
PJ	petajoule = 1×10^{15} joules
PJe	petajoule equivalent

g. Conversion factors for PJe

CSG	1.038 PJ/Bscf
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h. Reference point

Reference points for Origin's petroleum reserves and contingent resources are defined points within Origin's operations where normal exploration and production business ceases, and quantities of the produced product are measured under defined conditions prior to custody transfer. Fuel, flare and vent consumed to the reference points are excluded.

i. Preparing and aggregating petroleum resources

Petroleum reserves and contingent resources are typically prepared by deterministic methods with support from probabilistic methods. Petroleum reserves and contingent resources are aggregated by arithmetic summation by category and as a result, proved reserves may be a conservative estimate due to the portfolio effects of the arithmetic summation. Proved plus probable plus possible may be an optimistic estimate due to the same aforementioned reasons.

j. Methodology and internal controls

The reserves estimates undergo an assurance process to ensure that they are technically reasonable given the available data and have been prepared according to our reserves and resources process, which includes adherence to the PRMS Guidelines. The assurance process includes peer reviews of the technical and commercial assumptions. The annual reserves report is reviewed by management with the appropriate technical expertise, including the Resource Assessment Lead and Integrated Gas General Managers.

¹ Refer to Section 7 of the Operating and Financial Review released to the ASX on 19 August 2021 for further information.

Five-year Financial History



A reconciliation between statutory and underlying profit measures can be found in note A1 of the Origin Consolidated Financial Statements.

	2021 ¹	2020 ¹	2019 ¹	2018 ¹	2017 ¹
Income statement (\$m)					
Total external revenue	12,097	13,157	14,727	14,883	14,107
Underlying:					
EBITDA ²	2,048	3,141	3,232	3,217	2,530
Depreciation and amortisation expense	(550)	(509)	(419)	(381)	(477)
Share of interest, tax, depreciation and amortisation of equity accounted investees ³	(958)	(1,303)	(1,504)	(1,194)	(925)
EBIT	540	1,329	1,308	1,642	1,128
Net financing costs	(133)	(126)	(154)	(278)	(296)
Income tax benefit/(expense)	(87)	(177)	(123)	(339)	(279)
Non-controlling interests	(2)	(3)	(3)	(3)	(3)
Segment result and underlying consolidated profit	318	1,023	1,028	1,022	550
Impact of items excluded from segment result and underlying consolidated profit net of tax	(2,609)	(940)	183	(804)	(2,776)
Statutory:					
Profit/(loss) attributable to members of the parent entity	(2,291)	83	1,211	218	(2,226)
Statement of financial position (\$m)					
Total assets	21,037	25,093	25,743	24,257	25,199
Net debt/(cash)	4,786	5,688	6,084	7,289	8,364
Shareholders' equity - members/parent entity interest	9,795	12,680	13,129	11,804	11,396
Adjusted net debt/(cash) ⁴	4,639	5,158	5,417	6,496	8,111
Shareholders' equity - total	9,815	12,701	13,149	11,828	11,418
Cash flow					
Net cash from operating and investing activities - total operations (\$m)	1,183	1,813	1,914	2,645	1,378
Key ratios					
Statutory basic earnings per share (cents)	(130.2)	4.7	68.8	12.4	(126.9)
Underlying basic earnings per share (cents)	18.1	58.1	58.4	58.2	31.3
Total dividend per share (cents) ⁵	20	25	25	-	-
Net debt to net debt plus equity (adjusted) (%) ⁴	32	29	29	36	42
Underlying EBITDA by segment (\$m)					
Energy Markets ²	991	1,459	1,574	1,811	1,492
Integrated Gas	1,135	1,741	1,892	1,521	1,104
Corporate	(78)	(59)	(234)	(115)	(66)
General Information					
Number of employees	4,979	5,232	5,360	5,565	5,894
Weighted average number of shares	1,759,555,663	1,759,801,186	1,758,935,655	1,757,442,268	1,754,489,221

	2021 ¹	2020 ¹	2019 ¹	2018 ¹	2017 ¹
Integrated Gas⁶					
2P reserves (PJe)	4,252	4,268	4,599	4,799	5,788
Product sales volumes (PJe)	246	251	254	255	334
Liquified Natural Gas (Kt)	3,370	3,258	3,257	3,213	2,668
Natural gas and ethane (PJ)	59	70	73	77	163
Crude oil (kbbbls)	-	-	-	-	1,209
Condensate/naphtha (kbbbls)	-	-	-	-	1,615
LPG (kt)	-	-	-	-	144
Production volumes (PJe)	263	265	255	254	323
Energy Markets					
Generation (MW) - owned	6,047	6,029	6,029	5,981	6,011
Generation dispatched (TWh)	16	18	20	21	20
Number of customers ('000)	4,266	4,236	4,200 ⁷	4,181	4,210
Electricity	2,625	2,631	2,639	2,666	2,716
Natural gas	1,249	1,220	1,191	1,145	1,112
LPG	359	365 ⁸	362	370	382
Broadband	33	20	8	-	-
Electricity (TWh)	34	34	36	38	40
Natural gas (PJ)	193	204	222	214	188
LPG (Kt)	389	417	426	450	448

1 Includes discontinued operations and assets held for sale unless stated otherwise.

2 Since FY2019, EBITDA includes premiums relating to certain electricity hedges within Underlying Profit. The equivalent amounts in prior years have not been restated in the above table. Had the amounts been adjusted, the impact to underlying EBITDA in each period would have been a reduction in each year is as follows: FY2018 \$(160) million; and FY2017 \$(141) million.

3 Origin discloses its equity accounted results in two lines: 'share of EBITDA of equity accounted investees,' included in EBITDA; and 'share of interest, tax, depreciation and amortisation of equity accounted investees,' included between EBITDA and EBIT.

4 Total current and non-current interest-bearing liabilities only, less cash and cash equivalents excluding APLNG related cash, less fair value adjustments on hedged borrowings.

5 Dividends represent the interim and final dividends determined for each FY. This includes the final dividend for FY21 determined on 19 August 2021 to be paid on 1 October 2021. The amounts paid within each FY are 22.5c, 30c, 10c, 0c and 0c respectively.

6 2018 excludes Lattice Energy (continuing operations basis shown).

7 Total number of customers restated to include Broadband customers

8 June 2020 LPG customer accounts restated to include ~2,500 Asia Pacific customer accounts

Glossary and Interpretation



Glossary

Statutory financial measures

Statutory financial measures are measures included in the Financial Statements for the Origin Consolidated Group, which are measured and disclosed in accordance with applicable Australian Accounting Standards. Statutory financial measures also include measures that have been directly calculated from, or disaggregated directly from financial information included in the Financial Statements for the Origin Consolidated Group.

Term	Meaning
Cash flows from investing activities	Statutory cash flows from investing activities as disclosed in the Statement of Cash Flows in the Origin Consolidated Financial Statements.
Cash flows from operating activities	Statutory cash flows from operating activities as disclosed in the Statement of Cash Flows in the Origin Consolidated Financial Statements.
Cash flows used in financing activities	Statutory cash flows used in financing activities as disclosed in the Statement of Cash Flows in the Origin Consolidated Financial Statements.
Net Debt	Total current and non-current interest-bearing liabilities only, less cash and cash equivalents excluding cash to fund APLNG day-to-day operations.
Non-controlling interest	Economic interest in a controlled entity of the consolidated entity that is not held by the Parent entity or a controlled entity of the consolidated entity.
Statutory Profit/Loss	Net profit/loss after tax and non-controlling interests as disclosed in the Income Statement in the Origin Consolidated Financial Statements.
Statutory earnings per share	Statutory Profit/Loss divided by weighted average number of shares as disclosed in the Income Statement in the Origin Consolidated Financial Statements.

Non-IFRS financial measures

Non-IFRS financial measures are defined as financial measures that are presented other than in accordance with all relevant Accounting Standards. Non-IFRS financial measures are used internally by management to assess the performance of Origin's business, and to make decisions on allocation of resources. The Non-IFRS financial measures have been derived from Statutory financial measures included in the Origin Consolidated Financial Statements, and are provided in this report, along with the Statutory financial measures to enable further insight and a different perspective into the financial performance, including profit and loss and cash flow outcomes, of the Origin business.

The principal Non-IFRS profit and loss measure of Underlying Profit has been reconciled to Statutory Profit in Section 4.1. The key Non-IFRS financial measures included in this report are defined below.

Term	Meaning
AASB	Australian Accounting Standards Board
Adjusted Net Debt	Net Debt adjusted to remove fair value adjustments on hedged borrowings
Adjusted Underlying EBITDA	Origin Underlying EBITDA – Share of APLNG Underlying EBITDA + net cash from APLNG over the relevant 12 month period.
Average interest rate	Interest expense divided by Origin's average drawn debt during the period.
cps	Cents per share.
Free Cash Flow	Net cash from operating and investing activities (excluding major growth projects), less interest paid.
FY21 (Current period)	Twelve months ended 30 June 2021.
FY20 (Prior period)	Twelve months ended 30 June 2020.
Gearing	Adjusted Net Debt / (Adjusted Net Debt + Total equity)
Gross Profit	Revenue less cost of goods sold.
Items excluded from Underlying Profit (IEUP)	Items that do not align with the manner in which the Chief Executive Officer reviews the financial and operating performance of the business which are excluded from Underlying Profit. See Section 4.1 for details.
MRCPS	Mandatorily Redeemable Cumulative Preference Shares.
Non-cash fair value uplift	Reflects the impact of the accounting uplift in the asset base of APLNG which was recorded on creation of APLNG and subsequent share issues to Sinopec. This balance will be depreciated in APLNG's Income Statement on an ongoing basis and, therefore, a dilution adjustment is made to remove this depreciation.
Share of ITDA	Origin's share of equity accounted interest, tax, depreciation and amortisation.
Total Segment Revenue	Total revenue for the Energy Markets, Integrated Gas and Corporate segments, as disclosed in note A1 of the Origin Consolidated Financial Statements.
Underlying EPS	Underlying Profit/Loss divided by weighted average number of shares.
Underlying EBITDA	Underlying earnings before underlying interest, underlying tax, underlying depreciation and amortisation (EBITDA) as disclosed in note A1 of the Origin Consolidated Financial Statements.

Term	Meaning
Underlying share of ITDA	Share of interest, tax, depreciation and amortisation of equity accounted investees adjusted for items excluded from Underlying Profit.
Underlying Profit/Loss	Underlying net profit/loss after tax and non-controlling interests as disclosed in note A1 of the Origin Consolidated Financial Statements.
Underlying ROCE (Return on Capital Employed)	Calculated as Adjusted EBIT / Average Capital Employed. Average Capital Employed = Shareholders Equity + Origin Debt + Origin's Share of APLNG project finance - Non-cash fair value uplift + net derivative liabilities. The average is a simple average of opening and closing in any 12 month period. Adjusted EBIT = Origin Underlying EBIT and Origin's share of APLNG Underlying EBIT + Dilution Adjustment = Statutory Origin EBIT adjusted to remove the following items: a) Items excluded from underlying earnings; b) Origin's share of APLNG underlying interest and tax; and c) the depreciation of the Non-cash fair value uplift adjustment. In contrast, for remuneration purposes Origin's statutory EBIT is adjusted to remove Origin's share of APLNG statutory interest and tax (which is included in Origin's reported EBIT) and certain items excluded from underlying earnings. Gains and losses on disposals and impairments will only be excluded subject to Board discretion.

Non-financial terms

Term	Meaning
Boe	Barrel of oil equivalent
CES	Community Energy Services
C&I	Commercial and Industrial
DMO	Default Market Offer
ERP	Enterprise resource planning
GJ	Gigajoule = 10^9 joules
JCC	Japan Customs-cleared Crude (JCC) is the average price of crude oil imported to Japan. APLNG's long-term LNG sales contracts are priced based on the JCC index.
Joule	Primary measure of energy in the metric system.
Kansai	When referring to the off-taker under the LNG Sale and Purchase Agreement (SPA) with APLNG, means Kansai Electric Power Co. Inc.
kT	kilo tonnes = 1,000 tonnes
Mtpa	Million tonnes per annum
MW	Megawatt = 10^6 watts
MWh	Megawatt hour = 10^3 kilowatt hours
NEM	National Electricity Market
NPS	Net Promoter Score (NPS) is a measure of customers' propensity to recommend Origin to friends and family
PJ	Petajoule = 10^{15} joules
PJe	Petajoules equivalent = an energy measurement used to represent the equivalent energy in different products so the amount of energy contained in these products can be compared.
PPA	Power Purchase Agreement
Sinopec	When referring to the off-taker under the LNG Sale and Purchase Agreement (SPA) with APLNG, means China Petroleum & Chemical Corporation which has

Term	Meaning
	appointed its subsidiary Unipec Asia Co. Ltd. to act on its behalf under the LNG SPA.
SME	Small Medium Enterprise
TRIFR	Total Recordable Incident Frequency Rate
TW	Terawatt = 10^{12} watts
TWh	Terawatt hour = 10^9 kilowatt hours
Watt	A measure of power when a one ampere of current flows under one volt of pressure.

Interpretation

All comparable results reflect a comparison between the current period and the prior period, unless otherwise stated.

A reference to APLNG or Australia Pacific LNG is a reference to Australia Pacific LNG Pty Limited in which Origin holds a 37.5 per cent shareholding. A reference to Octopus Energy or Octopus is a reference to Octopus Energy Group Limited in which Origin holds a 20% shareholding. Origin's shareholding in APLNG and Octopus Energy is equity accounted.

A reference to \$ is a reference to Australian dollars unless specifically marked otherwise.

All references to debt are a reference to interest bearing debt only.

Individual items and totals are rounded to the nearest appropriate number or decimal. Some totals may not add due to rounding of individual components.

When calculating a percentage change, a positive or negative percentage change denotes the mathematical movement in the underlying metric, rather than a positive or a detrimental impact. Percentage changes on measures for which the numbers change from negative to positive, or vice versa, are labelled as not applicable.

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EY

Further information about Origin's
performance can be found on our website:

originenergy.com.au