To	Company Announcements Office	Facsimile	1300 135 638
Company	ASX Limited	Date	13 September 2019
From	Helen Hardy	Pages	190
Subject	Origin Energy 2019 Annual Report		

Please find attached a release on the above subject.

Regards

Helen Hardy
Company Secretary

02 8345 5000

2019 Annual Report

origin

good energy

"Good energy is delivering cleaner and smarter energy to our customers"

Amber Fennell
General Manager
Business Energy and Energy Services

Featured on our front cover is Amber Fennell

Amber is General Manager, Business Energy and Energy Services and says good energy is about striking a balance between getting the basics right and delivering innovative products and services.

Amber was photographed at the Stockyard Hill Wind Farm in Victoria. In May 2017, Origin entered into a long-term power purchase agreement with Goldwind for 100 per cent of the output from the wind farm.

Contents

Our purpose

Getting energy right for our customers, communities and planet.

Our values

- Work as one team, one Origin
- Be the customer champion
- Care about our impact
- Being accountable
- Find a better way

A message from Gordon and Frank

Welcome to the 2019 Annual Report

Just over a year ago, we launched our new purpose and values to align and guide the 5,500 people who work for Origin in their daily work of getting energy right for our customers, communities and planet.

Origin is a diverse business spanning generation, upstream gas and retail operations. Every day our people engage with customers, suppliers and members of the community all over Australia, listening to how we can make energy work better for them.

Our purpose and five values were developed because we wanted to make clear that every decision and action that takes place in our business – be it at a power station, in a customer-facing role, out in our gas fields, or in a corporate office – must demonstrate our principles in action.

It has been great to see our people so supportive and engaged in our purpose and the new values. Amber Fennell, who is on the cover of this report, is someone who exemplifies Origin's values. Amber works with our business customers to deliver energy solutions. Amber and the future energy team are showing customers how they can harness emerging technologies that will help them reduce their energy costs and support sustainability, such as virtual power plants. We would like to thank Amber for appearing on the cover of this report and telling the story of how 'good energy' is about delivering products and services that make life easier and are value for money.

On that note, we know energy affordability is top of mind for many of our customers. Our teams have been working on improving affordability, adding more contracted renewables to our generation capacity, as well as investing to make our generation assets more flexible to support more wind and solar in the market, delivering more gas to domestic customers and working on ways to get it out of the ground at a lower cost. These are only a few of the many actions we have taken, and we will continue to look at ways we can make energy more affordable.

We hope the 2019 Annual Report will give you a sense of how we are working every day to deliver on our purpose.

Progress on our commitments

We are pleased to have delivered this financial result, with contributions from two strong cash generating businesses. The reduction of debt by more than $1 billion to $5.4 billion as at 30 June 2019 means we have achieved the lower end of our target capital structure range.

Our efforts to simplify the organisation and apply a disciplined approach to capital means we are now in a position to deliver returns to shareholders through the dividend and focus on growth opportunities.

Over FY2019, Integrated Gas benefited from higher commodity prices, cost efficiencies and continued reliable production at Australia Pacific LNG. Energy Markets faced headwinds, with a highly competitive retail market and regulatory intervention impacting electricity margins.

After many years of improved safety performance across Origin, disappointingly our Total Recordable Injury Frequency Rate (TRIFR) increased to 4.5, from 2.2 last year. This is an unacceptable outcome, and our efforts are focused on making sure our people return home to their families safely every day.

Supporting customers and the community

Origin knows affordability is the most pressing issue for our customers, and in response we are playing our part to put downward pressure on energy prices. On 1 July 2019, we went beyond what was required of us with the introduction of the Commonwealth's Default Market Offer and extended the same pricing to our customers on non-discounted plans with a flat rate tariff. This move meant more than half a million residential and small business customers are now paying less for their electricity.

We also continue to be proud of the efforts of our philanthropic foundation, the Origin Foundation, which is entering its 10th year of empowering young Australians through education. In FY2019, the Origin Foundation contributed $1.5 million to education initiatives and 1,800 of our people volunteered through the foundation's Give Time program. Over the decade, the Origin Foundation has provided more than $25 million to good causes across Australia.

Origin has an important role in the economy's transition towards a clean energy future. Our focus continues to be delivering affordable energy by running our generation assets reliably and efficiently, bringing more renewable energy online and maintaining our competitive gas supply portfolio.

Origin's performance

Across Energy Markets, the profitability of the electricity portfolio was impacted by price relief measures provided to customers, the continued impact of retail competition and lower average customer numbers and usage. Underlying EBITDA in Energy Markets was $1,574 million, a decline of $77 million from FY2018.

In light of this, we have focussed on enhancing the customer experience, simplifying our Retail business by targeting cost savings of greater than $100 million by FY2021, and growing new revenue streams in centralised energy services, solar and storage and broadband.

Over FY2019, we also delivered record generation at Eraring Power Station and the introduction of almost 500 megawatts of new contracted renewables. And we are on track to meet our target for more than 25 per cent of our owned and contracted generation capacity to come from renewables and storage solutions by 2020.

Australia Pacific LNG continued its strong operational and financial performance in FY2019. Higher effective commodity prices and stable production, despite planned upstream maintenance, resulted in net cash flow to Origin of $943 million. The Integrated Gas business increased Underlying EBITDA by $641 million or 51 per cent to $1,892 million.

Outlook

The political and regulatory environment continues to be fluid and we will remain a committed advocate for good energy policy. The outlook for our business that we gave at our annual results on 22 August 2019 was premised on the basis that market conditions and the regulatory and political environments do not result in further adverse impacts on operations.

On that basis, we said Energy Markets Underlying EBITDA is expected to be in the range of $1.35 billion to $1.45 billion. The gross profit of the natural gas portfolio is expected to be relatively stable, while it is estimated that there will be a reduction in electricity gross profit reflecting the impacts of government default market offers, lower green scheme prices flowing through to business customer tariffs and lower customer usage.

Australia Pacific LNG's FY2020 production is expected to be 680 to 700 petajoules. Integrated Gas expects to achieve a distribution breakeven of US$33 to US$36/boe.

The sale of the Ironbark asset to Australia Pacific LNG for $231 million, settled on 5 August 2019, will contribute to reducing the debt balance in FY2020.

Looking forward

We were pleased to welcome Greg Lalicker to our board as an independent non-executive director earlier this year. Greg brings extensive oil and gas industry and strategic experience to Origin along with a global perspective to our board.

The Australian economy's transition to lower emissions will present new challenges and opportunities for Origin and we are well positioned to meet those.

All our decisions are guided by our purpose and meeting the expectations of our customers and shareholders into the future.

We look forward to speaking with many of you at our forthcoming Annual General Meeting on 16 October. Thank you for your continued support.

Gordon Cairns
Chairman

Frank Calabria
Chief Executive Officer

About Origin

Energy Markets

Leading energy retailer

4.2 million gas, electricity and LPG customer accounts

Growing renewables and storage supply

From ~19% of Origin's owned and contracted generation capacity today to more than 25% by 2020

Significant generation portfolio

~7,500 MW with fuel and geographic diversity

Large and flexible gas supply

Contract length, cost and transportation flexibility

Growth opportunities

- Increase generation flexibility and capacity – brownfield growth and integrate storage
- New revenue streams – centralised energy services, adjacencies (e.g. Origin Broadband) and solar and storage

Integrated Gas

Share of APLNG (37.5%)

Australia's largest CSG reserves base

2P reserves of 11,920 PJ[1] (APLNG 100%)

Largest LNG facility on the Australian east coast

9 mtpa nameplate capacity

Supplier to domestic and export markets

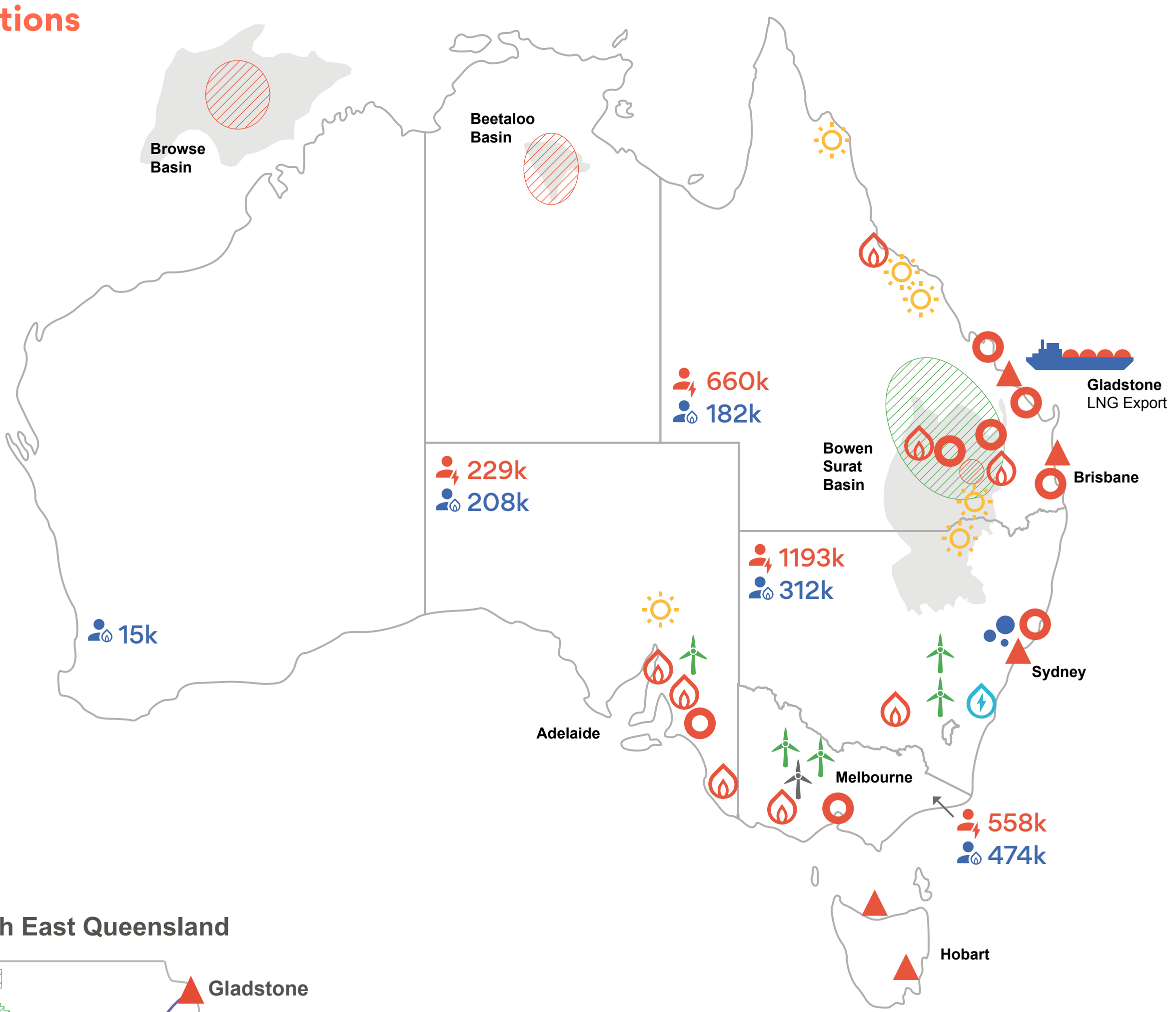
- Supplier of ~30% of domestic east coast gas demand in FY2019
- ~8.6 mtpa LNG export contracts to 2035

Other exploration and development interests

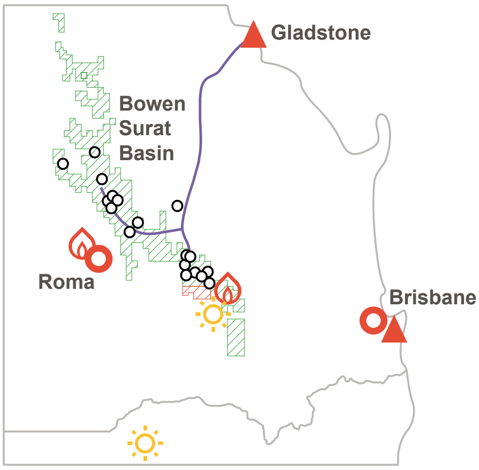
- Beetaloo Basin – multi-decade opportunity
- Exploring multiple plays in APLNG
- New interest in Cooper-Eromanga Basin

1 At 30 June 2019. For further information refer to Origin's Annual Reserves Report for the year ended 30 June 2019, on page 178 of this report. Some of APLNG's reserves and resources are subject to reversionary rights and an ongoing royalty interest in favour of Tri-Star. Refer to section 7 of the Operating and Financial Review for further information.

Operations



South East Queensland



Exploration acreage
- Origin upstream acreage
- APLNG upstream acreage
- Production facility
- APLNG pipeline

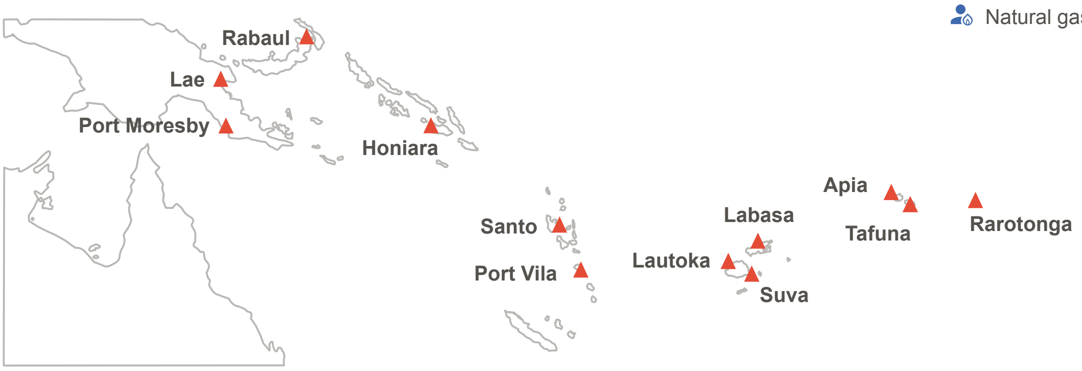
- Office

Generation
- Gas
- Pumped hydro
- Solar (contracted)
- Wind (contracted)
- Coal
- Under construction

- LPG seaboard terminal

- Electricity customer accounts
- Natural gas customer accounts

Pacific Islands LPG



Origin also has one LPG seaboard terminal in Cam Ranh, Vietnam.

Board of Directors

Gordon Cairns

Independent Non-executive Chairman

Tenure 12 years, 2 months

Gordon Cairns joined the Board in June 2007 and became Chairman in October 2013. He is Chairman of the Nomination Committee and a member of the Risk, Remuneration and People, Audit and Health, Safety and Environment committees.

Gordon has extensive Australian and international experience as a senior executive, as Chief Executive Officer of Lion Nathan Ltd, and has held senior management positions in marketing, operations and finance with PepsiCo, Cadbury Ltd and Nestlé.

Gordon is Chairman of Woolworths Group Limited (since September 2015), a Non-executive Director of Macquarie Group Limited and Macquarie Bank Limited (since November 2014) and World Education Australia (since November 2007).

Gordon was previously Chairman of the Origin Foundation, David Jones Limited (March 2014–August 2014) and Rebel Group (2010–2012), Director of The Centre for Independent Studies (May 2006–August 2011), Quick Service Restaurant Group (October 2011–May 2017) and Westpac Banking Corporation (July 2004–December 2013). He was also a senior advisor to McKinsey & Company.

Gordon holds a Master of Arts (Honours) from the University of Edinburgh.

John Akehurst

Independent Non-executive Director

Tenure 10 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 Chairman of the National Centre for Asbestos Related Diseases and the Fortitude Foundation and a Director of Human Nature Adventure Therapy Ltd (since February 2018).

John was previously Chairman of 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), Securency 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.

Maxine Brenner

Independent Non-executive Director

Tenure 5 years, 9 months

Maxine Brenner joined the Board in November 2013. She is Chairman of the Risk Committee and a member of the Audit 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 New South Wales and a lawyer at Freehills, specialising in corporate law.

Maxine is a Non-executive Director of Orica Ltd (since April 2013) and Qantas Airways Ltd (since August 2013). She is also an Independent Director and Chairman of the Audit and Risk Committee for Growthpoint Properties Australia and a member of the University of New South Wales Council.

Maxine's former directorships include Treasury Corporation of NSW, Bulmer Australia Ltd, Neverfail Springwater Ltd (1999–2003) 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 and Chief Executive Officer

Tenure 2 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 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 holds a Bachelor of Economics from Macquarie University and a Master of Business Administration (Executive) from the Australian Graduate School of Management. Frank is also a Fellow of the Chartered Accountants Australia and New Zealand and a Fellow of the Financial Services Institute of Australasia.

Teresa Engelhard

Independent Non-executive Director

Tenure 2 years, 3 months

Teresa Engelhard joined the Board in May 2017. She is a member of the Audit and Remuneration and People committees.

Teresa has more than 20 years' experience in the information, communication, technology and energy sectors as a senior executive and venture capitalist.

Teresa is a Non-executive Director of Wisetech Global (since March 2018), Planet Innovation Ltd (since April 2016), StartupAUS (since March 2016), and Redkite (since February 2017). Teresa started her career at McKinsey & Company in California where she served energy and retail clients. More recently, she focused on energy sector innovation as a Managing Partner at Jolimont Capital.

Teresa's former directorships include Daintree Networks and RedBubble Limited (July 2011–October 2017).

Teresa holds a Bachelor of Science (Hons) degree from the California Institute of Technology (Caltech), an MBA from Stanford University and is a graduate of the Australian Institute of Company Directors.

Greg Lalicker

Independent
Non-executive Director
(appointed 1 March 2019)
Tenure 4 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 also holds a Master of Business Administration and a law degree.

Bruce Morgan

Independent
Non-executive Director

Tenure 6 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 served as Chairman of the Board of PricewaterhouseCoopers (PwC) Australia between 2005 and 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 is Chairman of Sydney Water Corporation (since October 2013), a Director of Caltex Australia Ltd (since June 2013), a Director of Redkite, the University of NSW Foundation and the European Australian Business Council.

Bruce holds 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.

Scott Perkins

Independent
Non-executive Director

Tenure 3 years, 11 months

Scott Perkins joined the Board in September 2015. He is Chairman of the Remuneration and People Committee and a member of the Audit, Risk and Nomination 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 Limited (since September 2014) and Brambles Limited (since May 2015). He is Chairman of Sweet Louise (since 2005), a Director of the Museum of Contemporary Art in Sydney (since 2011) and the New Zealand Initiative (since 2012). Scott was previously 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.

Steven Sargent

Independent
Non-executive Director

Tenure 4 years, 3 months

Steven Sargent joined the Board in May 2015. He is Chairman of the Origin Foundation and a member of the Health, Safety and Environment and Remuneration and People 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 of the Australian Institute of Company Directors and a Fellow of the Australian Academy of Technological Sciences and Engineering.

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 and LPG. Greg has over 20 years' experience in the financial and energy markets.

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 People and Culture and the Origin Foundation 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 while working at Dixons, a large European electrical retailer.

Mark Schubert
Executive General Manager, Integrated Gas

Mark Schubert joined Origin in April 2015 and was appointed Executive General Manager, IG, in April, 2017. He is responsible for Origin's Integrated Gas business, which manages the Company's portfolio of natural gas and LNG interests. Mark has also held a number of senior positions during an 18-year career with Shell, including having direct accountability for developing the world's first floating LNG facility – Prelude FLNG.

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. Samantha has more than 20 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, and previously led the global media function and all Corporate Affairs M&A activity at global mining house, BHP.

Lawrie Tremaine
Chief Financial Officer

Lawrie Tremaine joined Origin in June 2017 as Chief Financial Officer. Lawrie leads the teams responsible for all finance activities, corporate strategy, corporate development, procurement, investor relations, HSE and risk. 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.

Directors' Report

For the year ended 30 June 2019

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 2019.

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 2019, 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 25 July 2019, Origin announced that notice had been given to redeem the €1 billion Capital Securities due in 2074, issued by Origin Energy Finance Limited, at their first call date of 16 September 2019.

On 19 February 2019, Origin announced that it had entered into an agreement with APLNG to sell its Ironbark asset for $231 million. Settlement of the transaction occurred on 5 August 2019 and a net nil profit or loss is expected to be realised in the year ending 30 June 2020.

On 22 August 2019, the directors determined a final dividend of 15 cents per share, fully franked at 30 per cent, on ordinary shares. The dividend will be paid on 27 September 2019.

3. Dividends

Dividends paid during the year by the Company were as follows:

	$ million
10 cents per ordinary share, fully franked, for the half year ended 31 December 2018, paid 29 March 2019	176

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

	$ million
15 cents per ordinary share, fully franked, for the year ended 30 June 2019, payable 27 September 2019	264

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 are set out below. Their qualifications, experience and special responsibilities are set out on page 6. The Company Secretary and her qualifications and experience are also set out below.

Gordon Cairns
Independent Non-executive Chairman

John Akehurst
Independent Non-executive Director

Maxine Brenner
Independent Non-executive Director

Frank Calabria
Managing Director & Chief Executive Officer

Teresa Engelhard
Independent Non-executive Director

Greg Lalicker (appointed 1 March 2019)
Independent Non-executive Director

Bruce Morgan
Independent Non-executive Director

Scott Perkins
Independent Non-executive Director

Steven Sargent
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. 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:

	Board Meetings				Committee Meetings									
	Scheduled		Additional		Audit		Health, Safety and Environment (HSE)		Nomination		Remuneration & People		Risk	
Directors	**H**	**A**	**H**	**A**	**H**	**A**	**H**	**A**	**H**	**A**	**H**	**A**	**H**	**A**
J Akehurst	10	10	1	1	–	–	4	4	1	1	–	–	4	4
M Brenner	10	10	1	1	4	4	–	–	1	1	–	–	4	4
G Cairns	10	10	1	1	4	4	4	4	1	1	6	6	4	4
F Calabria	10	10	1	1	–	–	4	4	–	–	–	–	–	–
T Engelhard	10	10	1	1	4	4	–	–	–	–	6	6	–	–
G Lalicker	4	4	0	0	–	–	–	–	–	–	–	–	–	–
B Morgan	10	10	1	1	4	4	4	4	1	1	–	–	4	4
S Perkins	10	10	1	1	4	4	–	–	1	1	6	6	4	4
S Sargent	10	10	1	1	–	–	4	4	–	–	6	6	–	–

H Number of scheduled meetings held during the time that the Director held office or was a member of the committee during the year.
A Number of meetings attended.

The Board held 10 scheduled meetings, including a two-day strategic review meeting and one additional meeting to deal with urgent matters. There were also seven Board or Committee workshops to consider matters of particular relevance. In addition, the Board conducted visits of Company operations at various sites and met with operational management during the year.

6. Directors' interests in Shares, Options and Rights

The relevant interests of each Director as at 30 June 2019 in the shares and 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
J Akehurst	71,200	–	–	–	–
M Brenner	28,367	–	–	–	–
G Cairns	163,660	–	–	–	–
F Calabria	232,117	1,203,145[1]	176,002[2]	563,869[2]	106,684[2]
T Engelhard	34,421	–	–	–	–
G Lalicker[3]	100,000	–	–	–	–
B Morgan	47,143	–	–	–	–
S Perkins	30,000	–	–	–	–
S Sargent	31,429	–	–	–	–

Exercise price for Options and Rights:
1 570,150: $6.78; 231,707: $5.67; 401,288: $7.37.
2 Nil.
3 From the date of appointment on 1 March 2019.

No Director other than the Chief Executive Officer & Managing Director 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 2019:

	PSRs
J Briskin	61,990
A Clarke	55,408
G Jarvis	66,490
M Schubert	66,490
L Tremaine	122,449

Each of these awards was made in accordance with the Company's Equity Incentive Plan as part of the relevant executive's remuneration. Further details on Options and Rights granted during the financial year, and unissued shares under Options and Rights, are included in section 7 of the Remuneration Report.

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 2019, so no ordinary shares in Origin were issued as a result.

Rights

285,259 ordinary shares of Origin were issued during the year ended 30 June 2019 on the vesting and exercise of DSRs granted under the Equity Incentive Plan. No amounts were payable on the vesting of those DSRs and, accordingly, no amounts remain unpaid in respect of any of those shares.

Since 30 June 2019, no ordinary shares were issued on the vesting of DSRs granted under the Equity Incentive Plan.

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 2019, the Company's Australian operations recorded some environmental incidents arising from Origin's activities, including those where Origin was the operator of a joint venture. These incidents resulted in environmental impacts of a minor and temporary nature. Regulators were notified of reportable environmental incidents. For FY2019, the Company received one formal environmental notice from a regulator arising from Origin's activities. One of these notices resulted in a $15,000 fine for an infringement at the Eraring Power Station within the Energy Markets Generation business. Appropriate remedial actions have been taken or are being undertaken in response to the notices.

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 2019 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 2019.

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 KPMG, the Company's auditors, who is or was at any time during the year ended 30 June 2019 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 KPMG for non-audit services provided during the year was $421,000 (shown to nearest thousand dollar). Amounts paid to KPMG are included in 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 KPMG 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 KPMG 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 KPMG 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.

Operating and Financial Review

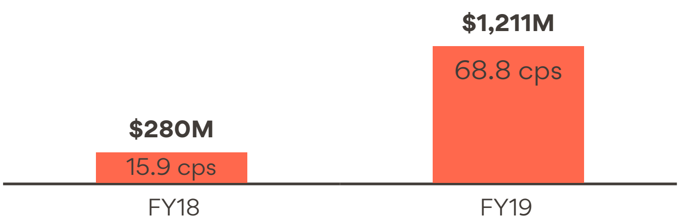
For the year ended 30 June 2019

This report is attached to and forms part of the Directors' Report.

1. Highlights[1]

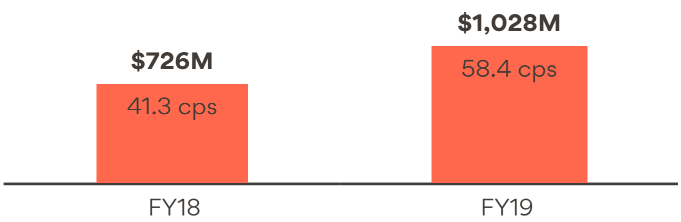
Delivering value to shareholders

Statutory Profit



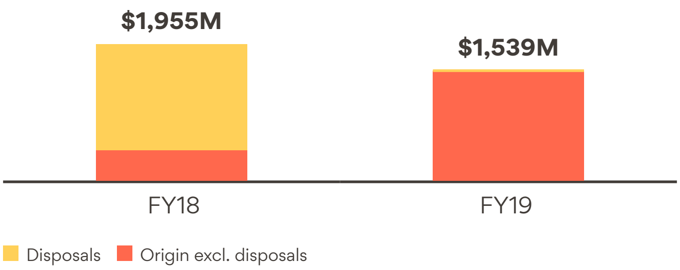
Up $931 million on FY2018

Underlying Profit

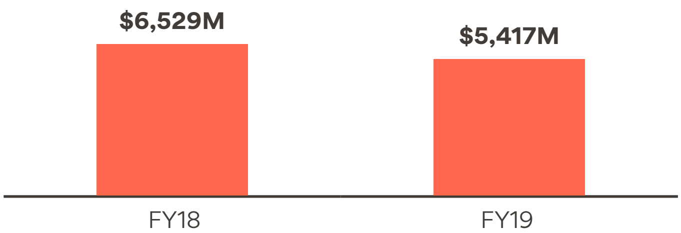


Up $302 million on FY2018; growth in APLNG earnings offset reductions in Energy Markets and Corporate

Free Cash Flow

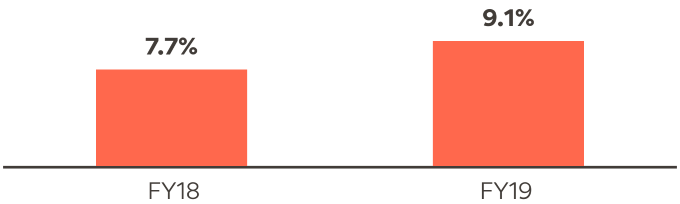


Adjusted net debt



Down $1,112 million on FY2018

Underlying ROCE



Final Dividend

15 cps

Fully franked

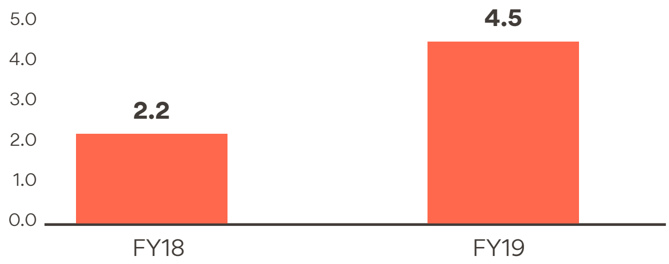
Full year dividend of 25 cps

Distribution policy
30%–50% Free Cash Flow

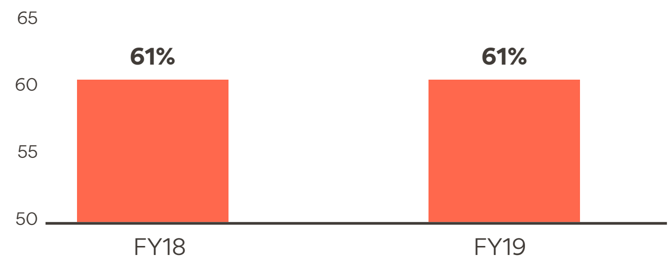
1 Financial information in this report is shown on a continuing operations basis unless stated otherwise. For comparability, FY2018 has been restated to include premiums relating to certain electricity hedges within Underlying Profit ($160 million pre-tax).

Keeping our people safe and engaged

TRIFR

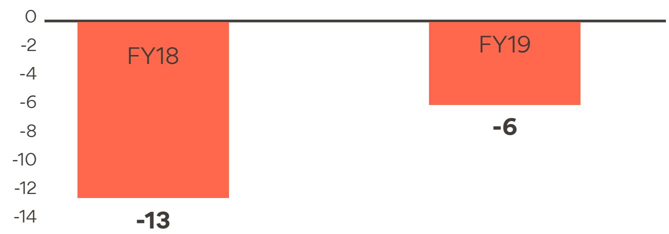


Staff engagement

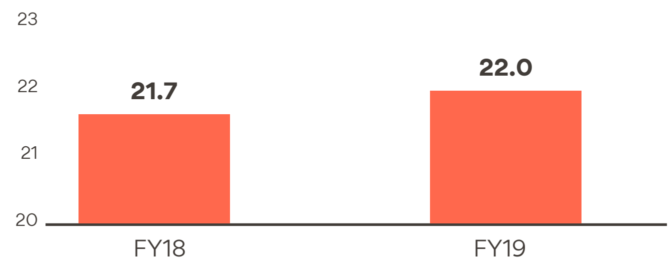


Getting energy right for our customers

Strategic net promoter score

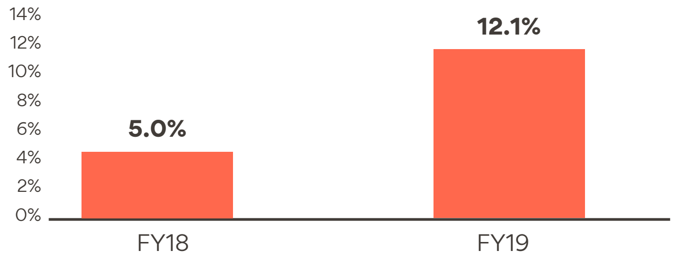


Interaction net promoter score

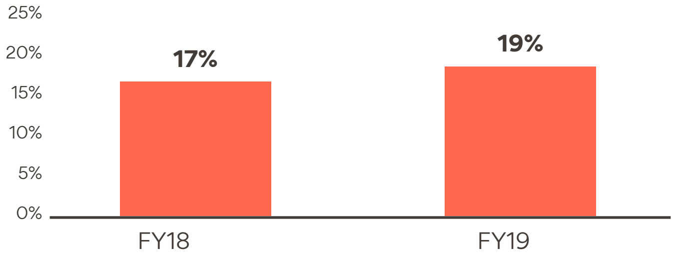


Caring about our impact

Regional procurement spend as % of total spend



Renewable + storage as % of total owned and contracted generation capacity



1. Highlights (continued)

Energy Markets performance

Underlying EBITDA

$1,574M

Down $77m or 5% vs FY2018

Operating cash flow

$1,707M

Up $362m vs FY2018. Cash conversion of 108% due to working capital movements

Record output at Eraring

16.5 TWh

Offset by less gas-fired generation

External gas sales

222 PJ

Up 3% vs FY2018

Cost to Serve

$610M

Down $15m or 2% vs FY2018

12.2%

Underlying ROCE

Down 1.4% vs FY2018

Integrated Gas performance

Underlying EBITDA

$1,892M

Up $641m or 51% vs FY2018

Net cash from APLNG

$943M

Up $580m or 160% vs FY2018

APLNG Production (37.5%)

255 PJ

In line with FY2018

Operating breakeven

US$21 /BOE

Distribution breakeven

US$36 /BOE

8.2%

Underlying ROCE

Up 4.1% vs FY2018

2. Strategy and prospects

Origin's strategy is underpinned by our overarching purpose of **getting energy right for our customers, communities and planet.** We operate in an evolving energy market shaped by global trends of decarbonisation, decentralisation of supply and digitisation, and our strategy is designed to deliver value in this context.

Business context

In recent years, the Australian east coast energy market has been characterised by higher wholesale electricity and gas prices, heightened levels of retail competition, and regulatory intervention, change and uncertainty. Origin has taken a leading role in addressing affordability by increasing supply of gas and baseload electricity, implementing a range of price relief measures and advocating for stable policy that adopts a whole of industry approach to affordable, reliable and lower emissions energy.

Domestic market context

Wholesale markets have been characterised by higher electricity and gas prices flowing through to customer bills, regulatory interventions and uncertainty

Origin's electricity margin is predominantly driven by outperforming the wholesale market cost of energy through our generation 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.

In natural gas, Origin's margin is driven by long-term gas supply and transportation contracts, which underpinned investment in power stations and by historical gas exploration and development.

Retail markets are highly competitive and are undergoing regulatory change aimed at addressing transparency and affordability

Profitability in energy retailing is driven by attracting and retaining customers through superior customer experience and service at low cost.

Regulation has been introduced from July 2019 that places a cap on electricity prices for "standing offers" – default contracts for customers who have not signed up to a retailer's market offer.[1] This will reduce margins in FY2020. The regulation also requires electricity offers to be compared to a "reference bill" based on the regulated cap prices. We expect this to improve transparency.

The Australian Federal Government has indicated it intends to underwrite new generation, either directly through government owned assets (e.g. Snowy 2.0) or indirectly through financial support. In this context, Origin will be cautious in deploying capital for new investments.

International market context

The international LNG market is expected to be well supplied near term. The majority of APLNG volumes are sold under long-term oil-linked export contracts to 2035 and long-term legacy domestic contracts that roll-off over time

International oil and LNG markets are characterised by a high degree of volatility. Origin is the upstream operator and has a 37.5% interest in APLNG which is a significant supplier to both domestic and international LNG markets. In FY2019, approximately 70% of APLNG gas volumes were sold as LNG (of which more than 95% was under long-term oil-linked contracts), with the remaining 30% sold domestically via a mix of long-term and short-term contracts. This contracting strategy minimises our exposure to the short-term LNG market.

As is typical in long-term LNG contracts, APLNG's LNG contracts contain periodic price reviews every 5–7 years. The first opportunity for such a price review will arise under APLNG's LNG contract with Sinopec within the next 18 months and requires the parties to use reasonable endeavours to agree on any changes required to achieve the objective of in-market pricing. In the absence of agreement, neither party is permitted to request this first price review to be determined by an expert. Subsequent price reviews can be referred to expert determination in the absence of agreement between the parties.

1 Some exclusions apply, such as solar customers in NSW, south east Queensland and SA, customers in an embedded network, customers on time of use tariffs or small business customers on a controlled load tariff.

Market outlook

We expect:

- renewables to reduce electricity prices, but increase the need for firming capacity
- volatility in oil and LNG to continue
- near-term pressure on LNG prices, but long term growth in global LNG demand

Going forward we expect:

- renewable generation in the NEM to almost double over 2019 and 2020, placing downward pressure on average wholesale electricity and renewable certificate prices but increasing volatility and the need for more reliable, dispatchable ('firming') capacity such as flexible gas-fired generation which Origin is well placed to supply;
- volatility in global oil and LNG markets to continue;
- near-term pressure on global LNG prices with significant new US supply expected over 2020–2022;
- long-term growth in global gas and LNG demand (particularly out of Asia);
- east coast domestic gas prices to be linked to medium term LNG prices; and
- retail energy markets to remain competitive, but with improved transparency due to market reference bill requirements.

Our strategy

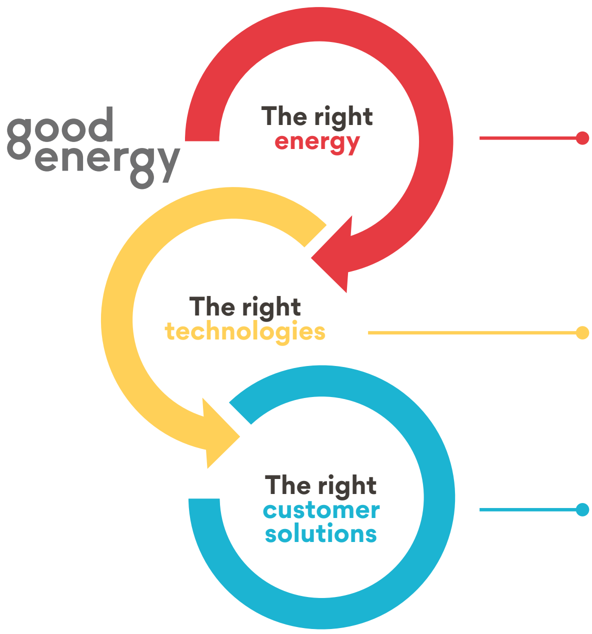
"Connecting customers to the energy and technologies of the future"

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.

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.



Accelerate towards clean energy

Low cost operator developing and growing gas resources

Embracing a decentralised and digital future

Leading customer experience and solutions

Underpinned by a commitment to capital discipline

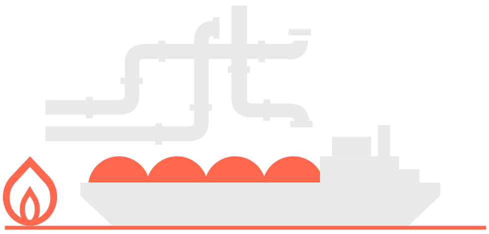
Accelerate towards clean energy

The right energy

We believe our generation and fuel supply portfolios provide flexibility to adapt and prosper in a changing energy market. We are targeting renewables and storage to account for more than 25% of our owned and contracted generation capacity by 2020.

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

Coal currently plays a critical role for baseload supply. As coal retires and renewables increase, the market will require investment in reliability. We are progressing a range of brownfield generation opportunities in fast-start gas, pumped hydro and batteries which would further increase our flexibility and capacity to support the increase in renewables. Subject to market signals and regulatory certainty, these can be quickly implemented at the appropriate time.



Low cost operator developing & growing gas resources

Our Integrated Gas business is well placed to meet growing global gas demand with existing liquefaction capacity and upstream opportunities. We are maturing new resources at APLNG and at other Origin upstream assets and are focused on being a globally competitive supplier of LNG into Asia.

As APLNG upstream operator, over the last 18 months, we have implemented a smaller, leaner asset-led structure. We have simplified our well designs and embedded drilling execution efficiencies, lowered our power costs and optimised our maintenance activities.

Beyond APLNG, we have the opportunity to scale the low cost operating model to new upstream development opportunities. In the Beetaloo Basin, we have a 70% interest in exploration permits over 18,500km^2 and in late 2018 commenced Stage 2 of a farm-in work program targeting two independent potentially liquids rich shale gas plays. Over FY2020, we plan to drill and fracture stimulate two horizontal wells and then undertake extended flow testing of both liquids and gas.

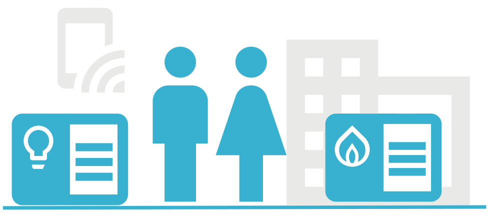
We have also recently entered into agreements with Bridgeport Energy to farm into a 75% equity position and operatorship of five permits located in the Cooper-Eromanga Basin in southwest Queensland. The staged farm-in work program involves the drilling of up to five exploration wells to be completed by the end of 2024 targeting both unconventional liquids and gas. Origin will carry up to the first $49 million of the staged exploration program.

Embracing a decentralised and digital future

The right technologies

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

We are working with other businesses to source technical solutions and capabilities. We are a co-founding member of The Free Electrons Global Energy group which brings together global utilities and leading start-ups looking to deploy new technology. Domestically, we sponsor EnergyLab, Australia's leading platform for launching energy startups. We have internally developed and trialled an artificial intelligence platform to connect and orchestrate distributed assets such as air conditioning units, batteries and hot water systems. Through technology such as this, we expect to be able to manage distributed assets at critical times of market volatility.



Leading customer experience and solutions

The right customer solutions

Origin is Australia's largest energy retailer by customer accounts and is well placed to harness opportunities to deliver value to customers in a changing energy market. Customers are at the heart of everything we do and our immediate focus is on transforming their experience to one which is simple, seamless and increasingly digital. We are simplifying our product offerings – reducing complexity for customers. Our focus is on balancing share and managing value by targeting customer segments with different products, pricing and channels, and minimising cost to serve. We expanded Origin Broadband allowing customers to benefit from organising their energy and broadband with one call. We also acquired OC Energy which expands our business in the growing centralised energy services sector. We launched new multi-channel experiences making it easier for customers to interact with us. Our digital first approach is driving more customer interactions through our on-line channels.

At the same time, we are targeting retail cost savings of more than $100 million by FY2021 compared with FY2018 and are focused on growing new revenue streams such as centralised energy services, solar and storage, and adjacencies such as broadband.

3. FY2020 Guidance

Guidance is provided on the basis that market conditions do not materially change and that the regulatory and political environment do not result in further adverse impacts on operations.

		FY2019	FY2020 guidance
Energy Markets			
Underlying EBITDA	A$m	1,574	1,350–1,450
Integrated Gas – APLNG 100%			
Production	PJ	679	680–700
Capex and opex, excluding purchases[(a)]	A$m	2,691	2,800–3,000
Corporate			
Underlying costs	A$m	(234)	(70–80)
Capital expenditure (including investments)	A$m	(405)	(530–580)

(a) Operating cash costs excludes purchases and reflects royalties paid at the breakeven oil price. Royalties increase as oil price increases.

Energy Markets

FY2020 Underlying EBITDA is estimated to be lower at **$1,350–$1,450** million driven by:

- Electricity gross profit reduction of $180–$220 million reflecting the impact of the DMO/VDO ($100 million), lower green scheme prices flowing through to Business tariffs, continued impacts of lower usage and increased generation operating costs associated with the Eraring ash dam;
- Gas gross profit remaining relatively stable; and
- Cost to serve savings of $40–$50 million reflecting ongoing transformation efforts in the Retail business.

On 8 July 2019, there was an electrical fault at one unit at the Mortlake power station. The power station continues to operate with the remaining unit and we are working to bring the damaged unit back online for the summer peak period. We have provided guidance on the basis it is back online for summer and insurance claims are recouped in FY2020.

Integrated Gas

We estimate APLNG (100%) FY2020 production of **680–700 PJ** and total cash costs of **$2.8–$3.0 billion**[1] reflecting:

- Increased operated production with Eurombah Reedy Creek Interconnect (ERIC) pipeline online;
- Higher well costs due to a larger proportion of fracked and horizontal wells and preparatory spend on FY2021 wells; and
- Higher workovers due to more wells online and spend on downstream major maintenance and spares.

APLNG is targeting **FY2020 distribution breakeven (post servicing project finance) of US$33–36/boe**[2]. For every US$10/boe realised above distribution breakeven, Origin's share of APLNG distributable cash flow is estimated to be approximately US$200 million. We continue to focus on cost reduction and value enhancement initiatives.

The current estimate of FY2020 oil and LNG hedging and trading costs is $84 million. Refer to Section 4.6 for details.

Corporate

FY2020 corporate costs are estimated to be **$70–$80 million**.

Capital expenditure (including investments) is estimated to be **$530–$580 million** including $110–$120 million exploration and appraisal spend, primarily relating to Beetaloo Stage 2 appraisal and preparation for Stage 3.

1 Excludes purchases and reflects royalties payable at the breakeven oil price.
2 FX Rate: 0.70 AUD/USD, royalties payable at the breakeven oil price, excluding Ironbark acquisition costs.

4. Financial update

Comparative financial information in this report is shown on a continuing operations basis unless stated otherwise. For the purpose of comparison, FY2018 has been restated to include premiums relating to certain electricity hedges within Underlying Profit ($160 million pre-tax) and to reflect a reclassification of movements in electricity futures exchange collateral balances to operating cash flows, previously in financing cash flows ($170 million outflow).

4.1 Financial summary

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Statutory Profit/(Loss) – total operations	1,211	218	993	456
Statutory Profit/(Loss) – continuing operations	**1,211**	**280**	**931**	**333**
Underlying EBITDA – continuing operations	**3,232**	**2,787**	**445**	**16**
Energy Markets	1,574	1,651	(77)	(5)
Integrated Gas	1,892	1,251	641	51
Corporate	(234)	(115)	(119)	103
Underlying Profit – continuing operations	**1,028**	**726**	**302**	**42**
Underlying ROCE	**9.1%**	**7.7%**		**1.4%**
Energy Markets	12.2%	13.6%		(1.4%)
Integrated Gas	8.2%	4.1%		4.1%
Cash flow from operating activities – continuing operations	1,325	983	342	35
Net cash from APLNG	943	363	580	160
Free Cash Flow	**1,539**	**1,955**	**(416)**	**(21)**
Adjusted Net Debt[(a)]	5,417	6,529	(1,112)	(17)
Adjusted Net Debt/Adjusted Underlying EBITDA	2.6x	3.7x		(30)

(a) FY2018 Adjusted Net Debt is restated to remove cash held by Origin, as Upstream Operator, to fund APLNG day-to-day operations

FY2019 statutory profit increased $931 million to $1,211 million, reflecting higher effective A$ oil price in APLNG, lower financing costs, lower impairment charges and favourable movements in fair value and foreign exchange expense.

Higher APLNG earnings and lower interest costs more than offset reduced Energy Markets earnings, higher corporate costs and higher APLNG related hedging costs, to underpin a 42% increase in Underlying Profit to $1,028 million and a 1.4% increase in Underlying ROCE to 9.1% in FY2019.

Operating cash flows increased $342 million to $1,325 million primarily due to working capital improvements, and net cash flows from APLNG which increased by $580 million to $943 million. Free cash flow reduced by $416 million reflecting the $1,585 million sale of Lattice Energy in the prior period.

Adjusted Net Debt reduced by $1.1 billion to $5.4 billion, this represents 2.6x Adjusted Net Debt/Adjusted Underlying EBITDA – at the lower end of our target capital structure range of 2.5–3.0x. Refer to section 4.6 for details.

4.2 Dividends

The Board has determined to pay a 15 cps fully franked dividend in respect of the second half of FY2019.

Origin will seek to pay sustainable shareholder distributions through the business cycle and will target an ordinary dividend payout range of 30% to 50% of free cash flow per annum. Distributions will take the form of franked dividends, subject to the company's franking credit balance. Free cash flow is defined as cash from operating activities and investing activities (excluding major growth projects), less interest paid.

Remaining cash flow after ordinary dividends 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 conditions.

The dividend reinvestment plan (DRP) will operate with nil discount, and the requirements of the DRP shares will be satisfied through on-market purchase. The DRP price of shares will be the average purchase price of shares, 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.

4.3 Reconciliation from Statutory to Underlying Profit

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Statutory Profit/(Loss) – continuing operations	**1,211**	**280**	**931**	**333**
Statutory Profit/(Loss) – discontinued operations	–	(62)	62	(100)
Statutory Profit/(Loss) – total operations	**1,211**	**218**	**993**	**456**
Items Excluded from Underlying Profit (post-tax):				
Increase/(decrease) in fair value and foreign exchange movements	139	(298)	437	(147)
Oil and gas	59	(113)	172	(152)
Electricity	(88)	(175)	87	(50)
FX and interest rate	(43)	(5)	(38)	760
Other financial assets/liabilities	274	(32)	306	(956)
FX on LNG related financing	(63)	27	(90)	(333)
Disposals, impairments and business restructuring	44	(394)	438	(111)
Total Items Excluded from Underlying Profit (post-tax)	**183**	**(692)**	**875**	**(126)**
Underlying Profit – total operations	**1,028**	**910**	**118**	**13**
Underlying Profit – discontinued operations	–	184	(184)	(100)
Underlying Profit – continuing operations	**1,028**	**726**	**302**	**42**

Fair value and foreign exchange movements reflect unrealised, 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 to which they relate. See below and Appendix 1 for further details.

- 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 4.6 for details of oil hedging carried out in relation to Origin's investment in APLNG.
- Electricity derivatives including swaps, options, power purchase arrangements 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.
- FX and interest rate derivatives manage exposure to foreign exchange and interest rate risk associated with the debt portfolio. A significant portion of debt is Euro denominated and cross currency interest rate swap derivatives hedge that debt to AUD or USD. A portion of the foreign debt is swapped to USD as a natural offset to the investment in APLNG which has a USD functional currency and delivers USD distributions.
- Other financial assets/liabilities include investments held by Origin including MRCPS issued by APLNG.[1]
- Foreign exchange loss on LNG financing relates to FX fluctuations from US dollar and Euro debt instruments swapped to US dollars. The foreign exchange movement provides a partial economic hedge against Origin's US dollar MRCPS issued by APLNG included within other financial assets/liabilities above.

Disposals, impairments and business restructuring items are either non-cash or non-recurring items and are excluded from Underlying Profit to provide a better reflection of the underlying performance of the business and include:

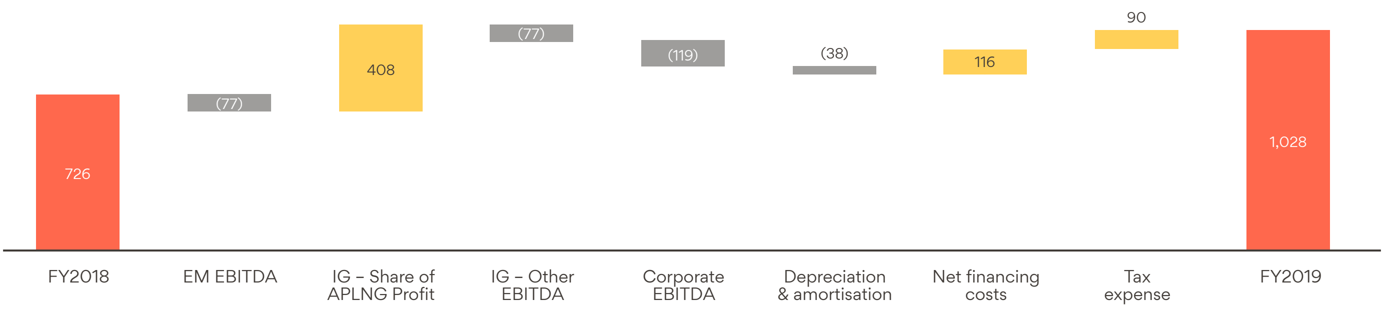
- Gain on disposal of non-core assets ($8 million post-tax) and gain on sale of Denison ($13 million post-tax, share of APLNG);
- Tax benefit recognised in respect of Ironbark being held for sale ($68 million) partly offset by an impairment of Ironbark ($34 million post-tax) which results in a net benefit of $34 million;
- Finalisation of the tax position related to the sale of Lattice Energy in FY2018 ($25 million benefit);
- Impairment reversal ($9 million post-tax) in relation to Heytesbury permits; and
- One-off building lease exit costs ($13 million post-tax), restructuring and transaction costs ($27 million post-tax).

1 Under AASB 9, from 1 July 2018, MRCPS is held at fair value, rather than at cost.

4.4 Underlying Profit

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Continuing operations:				
Energy Markets	1,574	1,651	(77)	(5)
Integrated Gas – Share of APLNG	2,123	1,405	718	51
Integrated Gas – Other	(231)	(154)	(77)	50
Corporate	(234)	(115)	(119)	103
Underlying EBITDA	**3,232**	**2,787**	**445**	**16**
Underlying depreciation and amortisation	(419)	(381)	(38)	10
Underlying share of ITDA	(1,504)	(1,194)	(310)	26
Underlying EBIT	**1,308**	**1,212**	**96**	**8**
Underlying interest income – MRCPS	226	227	(1)	(0)
Underlying net financing costs – other	(380)	(497)	117	(24)
Underlying profit before income tax and non-controlling interests	**1,154**	**942**	**212**	**23**
Underlying income tax expense	(123)	(213)	90	(42)
Non-controlling interests' share of underlying profit	(3)	(3)	–	–
Underlying profit	**1,028**	**726**	**302**	**42**
Discontinued operations:				
Underlying profit	–	184	(184)	(100)
Total operations:				
Underlying profit	**1,028**	**910**	**118**	**13**

Movements in Underlying Profit ($m)



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

Origin corporate costs increased by $119 million due to a non-cash provision increase of $170 million ($70 million in FY2018) primarily relating to remediation of the Osborne site in South Australia that operated as a former gasworks as well as FY2018 FX gains not repeated ($17 million). After adjusting for these one-off items, corporate costs remained stable in FY2019.

Origin depreciation and amortisation increased by $38 million primarily reflecting a revision of asset useful lives implemented from 1 January 2018.

Underlying share of ITDA increased primarily due to higher tax expense on higher earnings at APLNG and lower AUD/USD exchange rate in the conversion of APLNG's costs to Australian dollars.

The $116 million reduction in net financing costs is as a result of a lower net debt balance and a lower average cost of debt due to refinancing activities.

4.5 Cash flows

Operating cash flow

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Underlying EBITDA	3,232	2,787	445	16
APLNG Underlying EBITDA (non-cash)	(2,123)	(1,405)	(718)	51
Other non-cash items in Underlying EBITDA[(a)]	277	250	27	11
Change in working capital[(a)]	84	(503)	587	(117)
Energy Markets[(a)]	(63)	(225)	162	(72)
Energy Markets – electricity futures exchange collateral[(a)]	125	(170)	295	(174)
Integrated Gas – excluding APLNG	17	(55)	72	(131)
Corporate	5	(53)	58	(109)
Other[(a)]	(35)	(108)	73	(68)
Tax (paid)/refunded	(110)	(38)	(72)	189
Cash flow from operating activities (continuing operations)	**1,325**	**983**	**342**	**35**
Discontinued operations	–	140	(140)	(100)
Total cash flow from operating activities	**1,325**	**1,123**	**202**	**18**

(a) Items reclassed to align with the statutory cash flow and to include electricity futures collateral movements, previously in financing activities. See Appendix 1 for details.

Cash flow from operating activities increased $342 million due to improvements in working capital (+$587 million), partly offset by a reduction in Underlying EBITDA after adjusting for non-cash items (–$246 million).

FY2019 working capital decreased by $84 million, primarily relating to Energy Markets reflecting movements in futures exchange collateral (+$125 million); improvements in Business collections (+$157 million) and lower coal inventory (+$66 million), partially offset by Retail net movements (–$62 million), higher Green inventory (–$114 million) and lower AEMO creditors and coal payables (–$88 million).

Other non-cash items include provision increases for legacy site remediation ($170 million; FY2018: $70 million), and bad and doubtful debts ($84 million; FY2018: $88 million), share-based remuneration ($21 million; FY2018: $25 million), amortisation of oil hedge premiums paid in FY2017 (FY2018: $64 million), and exploration write-offs.

Other cash flows include restructuring and transaction costs excluded from Underlying Profit.

Investing cash flow

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Capital expenditure	(341)	(318)	(23)	7
Distribution from APLNG	974	287	687	239
Interest received from other parties	2	2	–	–
Investments/acquisitions	(64)	(10)	(54)	540
Disposals	18	1,485	(1,467)	(99)
Cash flow from investing activities (continuing operations)	**589**	**1,446**	**(857)**	**(59)**
Discontinued operations	–	(94)	94	(100)
Total cash flow from investing activities	**589**	**1,352**	**(763)**	**(56)**

FY2019 capex of $341 million was lower than guidance of $385–$445 million mostly due to timing and comprised:

- Generation sustain ($111 million) primarily related to Eraring Power Station maintenance ($80 million);
- Other sustain ($128 million) including costs associated with regulatory market reforms ($31 million), LPG ($29 million), and Solar & Energy Services ($16 million);
- Productivity/Growth ($84 million), including Quarantine upgrade ($17 million), and IT investments ($33 million);
- Exploration and appraisal spend ($18 million) primarily related to Beetaloo.

Distributions from APLNG amounted to $974 million comprising $229 million of MRCPS interest and $745 million of MRCPS buy backs. Origin separately repaid $31 million of a loan relating to project finance debt service reserve accounts (included in financing activities below). Total net cash from APLNG amounted to $943 million.

Investments/acquisitions comprised investments in OC Energy ($29 million, net of cash acquired), Intertrust Technologies Corporation ($28 million) and other Future Energy investments.

Financing cash flow

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Net proceeds/(repayment) of debt	185	(1,675)	1,860	(111)
Operator cash call movements	7	(81)	88	(109)
Close out of oil forward sale agreements	–	(265)	265	(100)
On-market purchase of employee shares	(77)	–	(77)	n/a
Close out of foreign currency contracts	(64)	(56)	(8)	14
APLNG loan (repayment)/proceeds[a]	(31)	76	(107)	(141)
Interest paid	(375)	(474)	99	(21)
Dividends paid	(165)	(2)	(163)	8,150
Total cash flow from financing activities	**(520)**	**(2,477)**	**1,957**	**(79)**
Effect of exchange rate changes on cash	2	1	1	100

(a) Represents funds distributed by APLNG upon issuance of a bank guarantee to APLNG by Origin in respect of project finance debt service reserve accounts. $31 million of the loan was repaid in FY2019 in line with changes to project finance requirements.

Operator cash call movements represents the movement in funds held and other balances relating to Origin's role as upstream operator of APLNG. On-market purchase of employee shares represents the purchase of shares associated with FY2016 to FY2019 employee share remuneration schemes. Close out 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 2019 is $201 million, included within Economic hedges in Note D4 of the Origin Energy Financial Statements.

Free cash flow

Free cash flow represents cash flow available to repay debt, invest in major growth projects or return cash to shareholders and is prepared on the basis of equity accounting for APLNG.

	Energy Markets		Integrated Gas – Share of APLNG		Integrated Gas – Other		Corporate		Total	
Year Ended 30 June ($m)	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Underlying EBITDA	1,574	1,651	2,123	1,405	(231)	(154)	(234)	(115)	3,232	2,787
Non-cash items	90	93	(2,123)	(1,405)	7	77	180	81	(1,845)	(1,154)
Change in working capital	62	(395)			17	(55)	5	(53)	84	(503)
Other	(20)	(5)			(1)	(15)	(15)	(88)	(35)	(108)
Tax (paid)/refunded	–	–			–	–	(110)	(38)	(110)	(38)
Operating cash flow	**1,707**	**1,345**	**–**	**–**	**(208)**	**(149)**	**(174)**	**(213)**	**1,325**	**983**
Capital expenditure	(304)	(293)			(28)	(21)	(9)	(5)	(341)	(318)
Distribution from APLNG	–	–			974	287	–	–	974	287
(Acquisitions)/disposals	(53)	258			1	–	7	1,217	(46)	1,475
Interest received	–	–			–	–	2	2	2	2
Investing cash flow	**(357)**	**(35)**	**–**	**–**	**946**	**266**	**–**	**1,214**	**589**	**1,446**
Interest paid	–	–			–	–	(375)	(474)	(375)	(474)
Free cash flow	**1,350**	**1,310**	**–**	**–**	**737**	**117**	**(548)**	**527**	**1,539**	**1,955**

Proportionate free cash flow

Free cash flow prepared on the basis of proportionate consolidation of APLNG.

	Energy Markets		Integrated Gas – Share of APLNG		Integrated Gas – Other		Corporate		Proportionate Total	
Year Ended 30 June ($m)	**2019**	**2018**	**2019**	**2018[(a)]**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Operating cash flow	**1,707**	**1,345**	**2,076**	**1,472**	**(208)**	**(149)**	**(174)**	**(213)**	**3,401**	**2,456**
Investing cash flow[(b)]	(357)	(35)	(487)	(480)	(27)	(21)	–	1,214	(871)	678
Interest paid	–	–	(192)	(157)	–	–	(375)	(474)	(567)	(630)
Proportionate free cash flow	**1,350**	**1,310**	**1,397**	**836**	**(235)**	**(170)**	**(548)**	**527**	**1,963**	**2,504**

(a) FY2018 has been reclassified to align to statutory financial statement classification.
(b) Cash flow from investing activities has been adjusted to remove cash flows between Shareholders and APLNG.

Presenting free cash flow on this basis highlights cash generation on an unlevered basis prior to the impact of APLNG's project finance debt which is serviced by APLNG prior to shareholder distributions.

Proportionate Free Cash Flow was $1,963 million in FY2019 representing a yield of 15% as at 20 August 2019.[1]

APLNG generated free cash flow of $3.7 billion on a 100% basis in FY2019, of which $2.6 billion was distributed to shareholders and $0.8 billion was directed to paying down project finance principal. The balance of cash was retained by APLNG to meet the settlement on the Ironbark acquisition and other operational funding requirements.

1 Proportionate FCF Yield based on 30 day VWAP for Origin of $7.48 per share at 20 August 2019.

4.6 Capital management

Origin's Adjusted Net Debt reduced from $6,529 million to $5,417 million during the 12 months ending 30 June 2019, driven by strong operating cash flow, increased cash received from APLNG and lower interest paid.

During FY2019 we completed the following capital management initiatives:

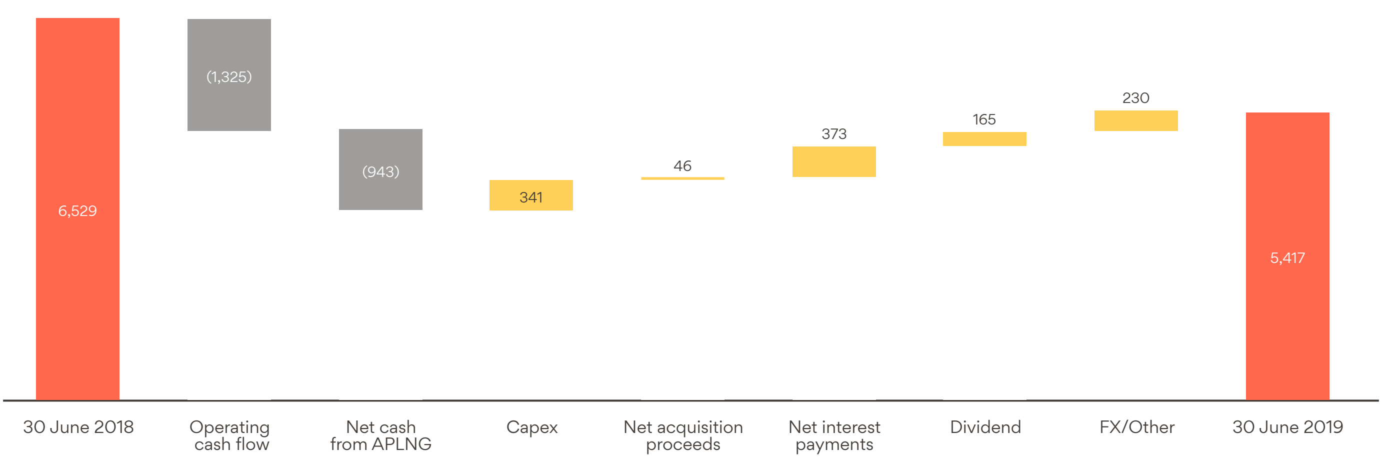
- Announced the sale of Ironbark to APLNG for $231 million which completed on 5 August 2019;
- Sale of two non-core assets, the Heytesbury depleted gas fields and our interest in a Vietnamese LPG business;
- Maintained relatively stable capital expenditure;
- Reintroduced a base dividend; and
- Refinanced debt to manage term and cost:
  - Raised US$525 million (A$749 million) of 10 year debt via the US Private Placement;
  - Raised ~A$555 million debt via a term loan facility with maturities ranging from 7.0 to 7.4 years; and
  - Repaid US$800 million (A$853 million) debt obligation.

We announced the acquisition of OC Energy for an upfront payment of $33 million and deferred payments of $25 million. This acquisition has expanded our business in the growing centralised energy services sector. We also agreed to farm into a 75% equity position and operatorship of five upstream permits in southwest Queensland. Origin will carry up to the first $49 million of a staged exploration program targeting both unconventional liquids and gas.

During FY2019, APLNG refinanced a total of US$4.5 billion of project finance debt; US$2.0 billion via a new 12-year US Private Placement note and US$2.5 billion via a new bank loan agreement with a syndicate of international and domestic banks. The estimated impact of the refinancing is a reduction in the distribution breakeven of ~US$3.5/boe and a higher cash distribution to Origin of ~A$100 million per annum on average over the FY2020 to FY2025 period, driven by lower interest cost and principal amortisation deferral.

Adjusted net debt

Movements in Adjusted Net Debt ($m)



Strong cash generation from both Energy Markets and Integrated Gas, combined with lower interest cost contributed to a $1.1 billion reduction in Adjusted Net Debt to $5,417 million.

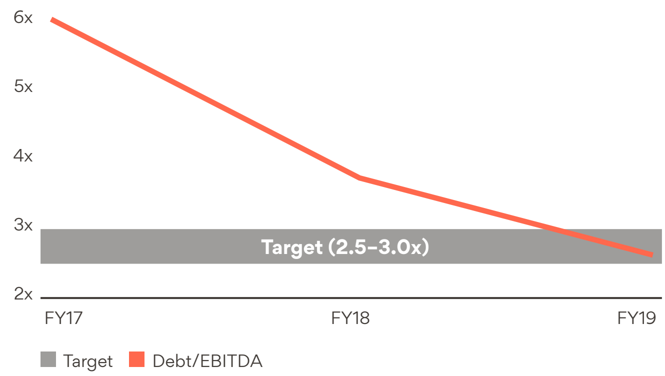
FX/Other primarily relates to non-cash translation of unhedged USD denominated debt (A$93 million), the on-market purchase of employee shares ($77 million) and the closing out of foreign currency contracts ($64 million).

Origin's objective is to achieve an Adjusted Net Debt/Adjusted Underlying EBITDA ratio at the low end of the 2.5–3.0x range which translates to a gearing target at the low end of ~25%–30% range.

As at 30 June 2019, this ratio was 2.6x and gearing was 29%, down from 3.7x and 36% respectively at 30 June 2018.

Reflecting the deleveraging and the strong cash flow generated during the period, the Company's long-term credit ratings were upgraded to BBB (stable) from S&P and Baa2 (stable) from Moody's – consistent with the target credit rating.

Adjusted Net Debt/Adjusted Underlying EBITDA



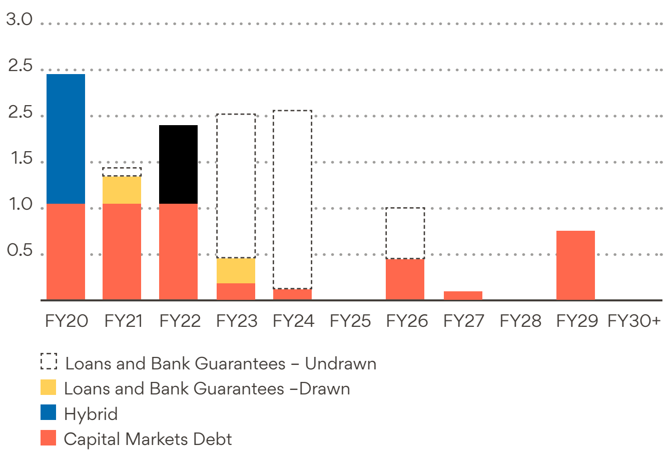
Debt portfolio management

Average term to maturity decreased from 3.1 years at June 2018 to 3.0 years at 30 June 2019. Average interest rate on drawn debt decreased from 6.5% in FY2018 to 5.9% in FY2019.

As at 30 June 2019, Origin held $1.5 billion of cash and $3.8 billion in committed undrawn debt facilities. This total liquidity position of $5.3 billion is held to repay $3.9 billion of drawn debt, guarantee and hybrid facilities maturing by December 2020, which primarily reflects debt raised during construction of the APLNG project.

The hybrid has a legal maturity of 2074, which is reflected in the Company's financial statements. However, the Company has the right to call the hybrid at par on 16 September 2019 ("first call date") and has notified noteholders of its intention to do so. For this reason, its maturity in the chart reflects the first call date. This is estimated to reduce FY2020 interest paid by $60 million.

Debt maturity profile ($b)



APLNG funding

During the construction phase of APLNG, shareholders contributed capital into APLNG 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% p.a. on the MRCPS, recognised as interest income by Origin, and second via buy-backs of MRCPS, refer to section 4.5 above. The fair value of MRCPS held by Origin at 30 June 2019 was A$3,045 million.

APLNG also funded construction via a US$8.5 billion project finance facility, signed in 2012. The outstanding balance at 30 June 2019 was US$6,939 million (A$9,896 million), gross of unamortised debt fees of US$98 million (A$139 million). As at 30 June 2019, gearing[1] in APLNG was 30%, down from 35% at 30 June 2018.

The table below outlines APLNG's project finance debt amortisation profile following the refinancing activity. APLNG's average interest rate associated with its project finance debt portfolio for FY2020 is estimated to be ~3.6%.

Closing balance as at 30 June (US$bn)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bank loan	2.5	2.3	2.0	1.7	1.4	1.2	0.9	0.6	0.3	–	–	–
US Exim	2.4	2.2	2.0	1.8	1.5	1.2	1.0	0.7	0.4	0.2	–	–
USPP	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.7	1.4	0.9	0.3
Total	6.9	6.5	6.0	5.5	4.9	4.3	3.8	3.1	2.4	1.6	0.9	0.3

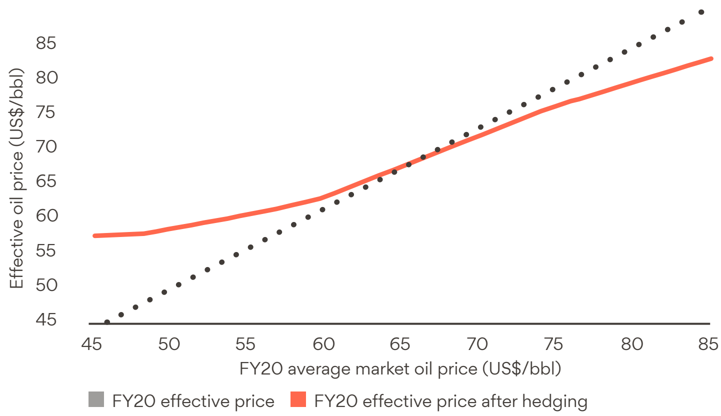
1 Gearing is defined as project finance debt less cash to project finance debt less cash plus equity.

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.

In FY2020, Origin's share of APLNG related JCC oil price exposure is estimated to be approximately 23 mmbbl. 11.6 mmbbl has been hedged at a floor of US$48/bbl, 2.5 mmbbl has been capped at US$85/bbl and 3 mmbbl has been fixed via a swap at A$97/bbl. These transactions were executed for a total premium cost of $28 million and based on forward market prices[1], the value of the hedge contracts in FY2020 is a gain of $21 million.

FY2020 Oil hedging



Effective oil prices are in JCC crude oil equivalents and are inclusive of contract pricing lags, hedging gains/(losses) and premium costs.

LNG hedging and trading

Uncontracted gas volumes produced by APLNG are sold to the domestic and spot LNG markets. To manage price risk associated with the LNG spot volumes, Origin entered into forward fixed price hedge contracts that settle over the period to the end of FY2020. FY2019 LNG hedging and trading costs were $84 million reflecting higher realised JKM prices. A previous hedge position for FY2020 has been fully closed out at a cost of $60 million. There are no LNG hedge positions related to APLNG's uncontracted sales exposure beyond FY2020.

In 2013, Origin established a Henry Hub linked contract to purchase 0.25 mtpa from Cameron LNG for a period of 20 years, which is expected to commence in FY2020 as commercial operations begin at that project. In 2016 Origin established a contract with ENN Energy Trading Company Limited to sell 0.28 mtpa on a Brent oil-linked basis commencing in FY2019 and ending in December 2023. The ENN contract provides a volumetric hedge for LNG from the Cameron contract for the period to December 2023. Based on forward market prices[1] the value of the contracts in FY2020 is a $17 million loss. The net present value of the combined contractual position, based on forward market and independent forecast prices, over the life of the contracts is not material.

1 As at 20 August 2019.

5. Review of segment operations

5.1 Energy Markets

Overview

Underlying EBITDA

$1,574M

Down $77m or 5% vs FY2018

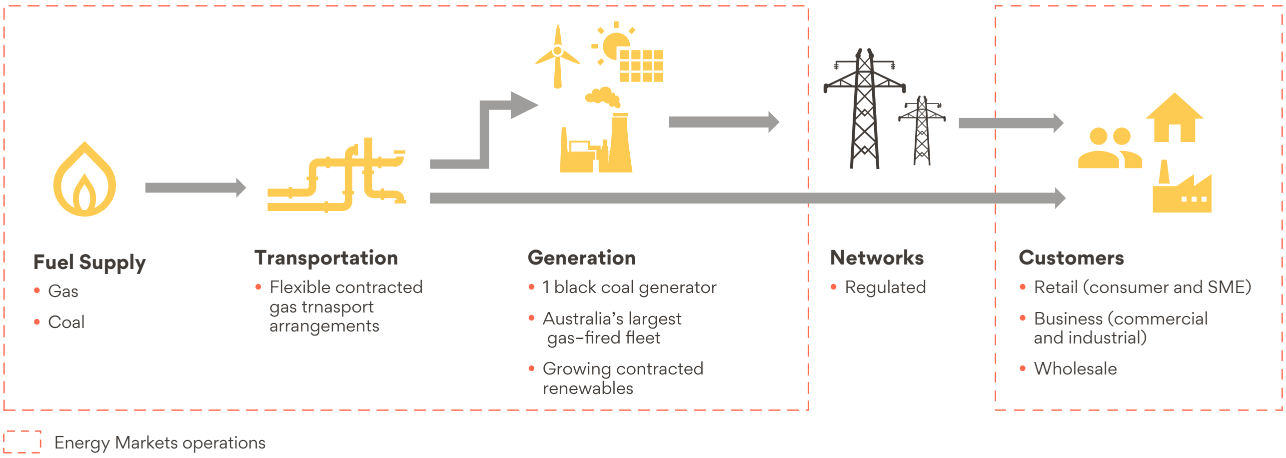
Record output at Eraring

16.5 TWh

Offset by less gas-fired generation

476 MW

new contracted renewable supply online in FY2019



Energy Markets comprises Australia's largest energy retail business 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 Eraring black coal-fired power station. Energy Markets reports on an integrated portfolio basis. Electricity and Natural Gas gross profit and retail costs to serve are reported separately, as are the EBITDA of the Solar and Energy Services, Future Energy and LPG divisions.

Operations

Wholesale energy prices remained elevated during FY2019. Electricity prices were impacted by low hydro storage levels in drought conditions, unplanned generation outages, delays in commissioning renewable capacity and extreme weather events. East coast gas prices continue to be impacted by tightening supply and strong medium term regional demand, partially offset by less demand for gas-fired generation. We have taken a leading role by increasing supply, including record output at Eraring despite an 11 week unit outage, and 476 MW of contracted renewable supply coming online.

Retail markets were highly competitive with margins reduced by actions to address customer affordability and the growth in discounts, primarily carried forward from FY2018. During FY2019, our customer accounts grew by 18,000 following the acquisition of 55,000 OC Energy customers. We focused on balancing share and managing value by targeting customer segments with different products, pricing and channels and minimising low value segments and pricing. Market churn reduced in the second half and we maintained a churn rate of 6% better than the market. Our price relief measures for customers included absorbing cost increases in New South Wales, low rates for hardship customers, a low rate concession product, and ensuring that no electricity customers on flat tariffs are paying above the Commonwealth Government's Default Market Offer introduced from 1 July 2019.

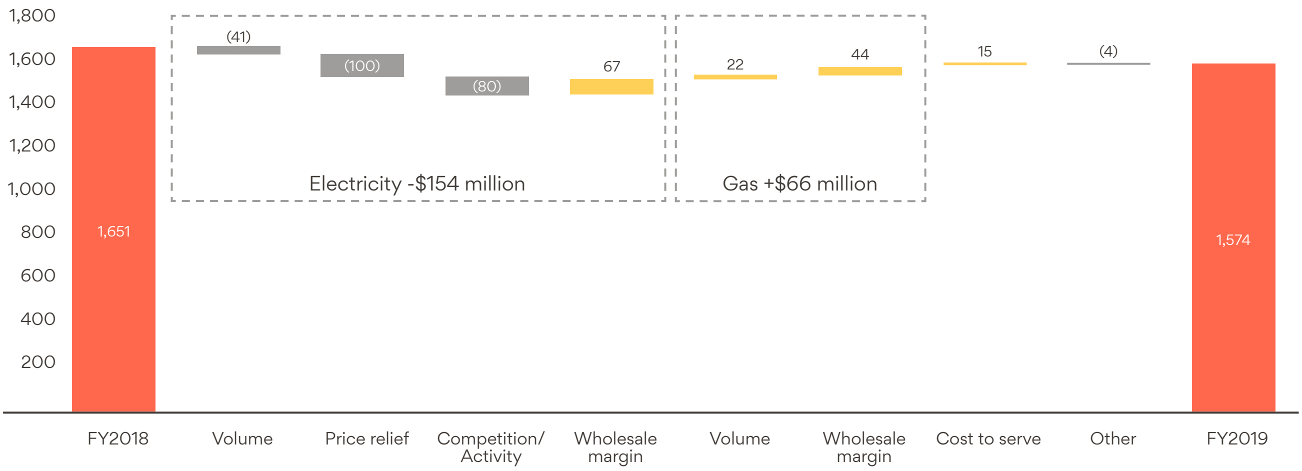
We commenced our Retail transformation program and we have lifted customer experience, reduced costs and grown in Solar, Broadband and Centralised Energy Services, including acquiring OC Energy. Our product suite has simplified with the retirement of ~38 products, 63% of customers on e-billing, digital interactions and self service increased to 83%, from 63% with service call volumes reducing by 20%. Onshore headcount has reduced by 10% throughout the year with a leaner operating model and expanded offshore capabilities. We remain on track to reduce cost to serve by $100 million from FY2018 to FY2021.

Financial summary

Underlying EBITDA

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Electricity gross profit	1,390	1,544	(154)	(10)
Natural Gas gross profit	715	649	66	10
Electricity & Natural Gas cost to serve	(610)	(624)	15	(2)
LPG EBITDA	68	91	(23)	(25)
Solar & Energy Services EBITDA	26	11	15	142
Future Energy costs	(15)	(19)	4	(20)
Underlying EBITDA	**1,574**	**1,651**	**(77)**	**(5)**
Underlying EBIT	**1,173**	**1,293**	**(120)**	**(9)**

Movements in Energy Markets Underlying EBITDA ($m)



5.1.1 Electricity

Volume Summary

Year ended 30 June Volumes sold (TWh)	2019 Retail	2019 Business	2019 Total	2018 Retail	2018 Business	2018 Total	Change TWh	Change %
NSW[(a)]	8.4	9.4	17.8	8.4	9.2	17.6	0.2	1
Queensland	4.6	3.5	8.1	4.9	4.0	8.9	(0.8)	(9)
Victoria	3.1	4.0	7.1	3.2	4.8	8.0	(1.0)	(12)
South Australia	1.3	1.9	3.2	1.2	1.8	3.0	0.2	7
Total volumes sold	**17.4**	**18.8**	**36.2**	**17.7**	**19.8**	**37.5**	**(1.4)**	**(4)**

(a) Australian Capital Territory customers are included in New South Wales.

Gross profit summary

Year ended 30 June	2019 $m	2019 $/MWh	2018 $m	2018 $/MWh	Change %	Change $/MWh
Revenue ($m)	**8,264**	**228.4**	**8,573**	**228.7**	**(4)**	**(0.3)**
Retail (consumer & SME)	5,056	290.5	5,262	297.9	(4)	(7.4)
Business	3,208	170.7	3,311	167.0	(3)	3.7
Cost of goods sold ($m)	**(6,874)**	**(189.9)**	**(7,028)**	**(187.5)**	**2**	**(2.6)**
Network costs	(3,287)	(90.8)	(3,417)	(91.1)	4	0.3
Energy procurement costs	(3,587)	(99.1)	(3,612)	(96.3)	1	(2.8)
Gross profit ($m)	**1,390**	**38.4**	**1,544**	**41.2**	**(10)**	**(2.8)**
Gross margin %	16.8%		18.0%		(7)	

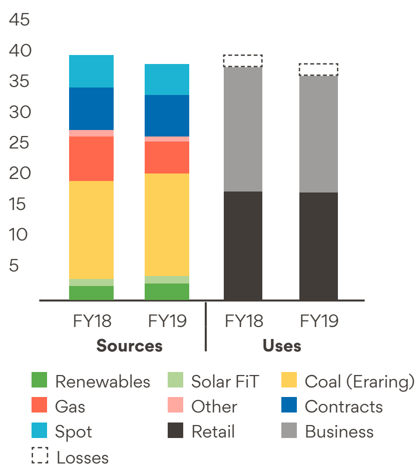
Electricity gross profit declined by $154 million driven by:

- $2.80/MWh reduction in unit margins comprising:
  - –$100 million from absorbing cost increases in NSW ($80 million) and price relief for concession customers from January 2019 ($20 million);
  - –$80 million from competition, primarily the full year impact of FY2018 discounting activity; partially offset by
  - A net +$67 million in wholesale margin, reflecting a higher contribution from Eraring and Business volumes repricing to market, partially offset by lower gas generation and LREC trading gains in the prior period not repeating.
- 1.4 TWh decrease in volumes (–$41 million) relating to fewer Business customer sites and lower Retail customer numbers and usage.

Owned and contracted generation decreased by 0.9 TWh, in line with sales volumes, reflecting lower gas-fired generation (-2.0 TWh) as gas was directed to wholesale customers, partially offset by record output at Eraring (+0.7 TWh), and increased output from contracted renewable supply coming online (+0.4 TWh).

Energy procurement costs increased by $2.80/MWh driven primarily by green regulatory schemes.

Sources and uses of Electricity (TWh)



Wholesale energy costs

Year ended 30 June	2019 $m	2019 TWh	2019 $/MWh	2018 $m	2018 TWh	2018 $/MWh
Fuel cost[(a)]	1,132	21.8	51.9	1,186	23.1	51.4
Generation operating costs	230	21.8	10.6	215	23.1	9.3
Owned generation[(a)]	1,363	21.8	62.4	1,401	23.1	60.7
Net pool costs[(b)]	449	5.0	90.5	447	5.1	88.3
Market contracts & bundled PPAs[(c)]	763	10.0	76.1	792	10.1	78.1
Solar feed-in tariff	127	1.2	103.3	131	1.1	117.1
Capacity hedge contracts	317			376		
Green schemes (excl. PPAs)	569			465		
Energy procurement costs	**3,587**	**38.0[(d)]**	**94.4**	**3,612**	**39.4[(d)]**	**91.6**

(a) Includes volume and cost from Pelican Point contracted generation.
(b) Net pool costs includes gross pool purchase costs net of pool revenue from generation, PPAs, and other contracts.
(c) Bundled PPAs includes cost of electricity and LRECs.
(d) Volume differs from sales volume due to energy losses of 1.8 TWh (2018: 1.9 TWh).

Electricity supply

Year ended 30 June	Nameplate Capacity (MW)	Type[a]	2019 Output (GWh)	2019 Pool Revenue ($m)	2019 Pool Revenue ($/MWh)	2018 Output (GWh)	2018 Pool Revenue ($m)	2018 Pool Revenue ($/MWh)	Change Output (GWh)	Change Pool Revenue ($m)	Change Pool Revenue ($/MWh)
Eraring	2,922										
Units 1-4	2,880	Black Coal	16,513	1,494	90	15,854	1,331	83	659	163	7
GT	42	OCGT	–	–	–	–	–	–	–	–	–
Darling Downs	644	CCGT	931	92	98	2,107	154	74	(1,176)	(62)	24
Osborne[b]	180	CCGT	759	105	138	1,279	132	103	(520)	(27)	35
Uranquinty	664	OCGT	333	53	160	565	62	110	(232)	(9)	50
Mortlake	566	OCGT	1,204	207	172	1,280	157	124	(76)	50	48
Mount Stuart	423	OCGT	9	1	132	10	1	123	(1)	–	9
Quarantine	230	OCGT	194	45	232	189	31	165	5	14	67
Ladbroke Grove	80	OCGT	157	29	182	168	24	145	(11)	5	37
Roma	80	OCGT	24	3	130	30	3	107	(6)	–	23
Shoalhaven	240	Pump/Hydro	157	20	130	99	12	121	58	8	8
Internal Generation	**6,029**		**20,281**	**2,050**	**101**	**21,581**	**1,907**	**88**	**(1,300)**	**143**	**13**
Pelican Point	240	CCGT	1,548			1,512			36		
Renewable PPAs[c]	1,207	Solar/Wind	2,744			2,333			411		
Owned and contracted Generation	**7,476**		**24,574**			**25,426**			**(852)**		

(a) OCGT = Open cycle gas turbine; CCGT = Combined cycle gas turbine.
(b) Origin has a 50 per cent interest in the 180 MW plant and contracts 100 per cent of the output.
(c) Reflects new contracted capacity coming online during the period, offset by legacy PPAs terminating.

5.1.2 Natural gas

Volume summary

Year ended 30 June Volumes sold (PJ)	2019 Retail	2019 Business	2019 Total	2018 Retail	2018 Business	2018 Total	Change PJ	Change %
NSW[(a)]	10.1	19.7	29.8	9.5	22.3	31.8	(2.0)	(6)
Queensland	3.3	92.3	95.5	3.1	83.7	86.5	8.7	10
Victoria	22.4	57.5	79.9	24.9	53.0	77.9	2.0	3
South Australia[(b)]	5.6	11.0	16.7	5.5	12.4	17.9	(1.2)	(7)
External volumes sold	**41.4**	**180.5**	**222.0**	**43.1**	**171.4**	**214.4**	**7.5**	**3**
Internal sales (generation)			49.4			66.6	(17.2)	(26)
Total volumes sold			**271.3**			**281.0**	**(9.7)**	**(3)**

(a) Australian Capital Territory customers are included in New South Wales.
(b) Northern Territory and Western Australia customers are included in South Australia.

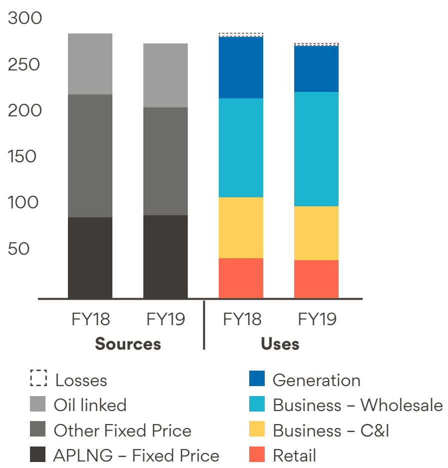
Gross profit summary

Year ended 30 June	2019 $m	2019 $/GJ	2018 $m	2018 $/GJ	Change %	Change $/GJ
Revenue ($m)	**2,926**	**13.2**	**2,644**	**12.3**	**11**	**0.8**
Retail (consumer & SME)	1,064	25.7	1,097	25.5	(3)	0.2
Business	1,862	10.3	1,547	9.0	20	1.3
Cost of goods sold ($m)	**(2,211)**	**(10.0)**	**(1,995)**	**(9.3)**	**(11)**	**(0.7)**
Network costs	(739)	(3.3)	(764)	(3.6)	3	0.2
Energy procurement costs	(1,472)	(6.6)	(1,231)	(5.7)	(20)	(0.9)
Gross profit ($m)	**715**	**3.2**	**649**	**3.0**	**10**	**0.2**
Gross margin %	24.4%		24.5%		–	

Natural gas gross profit increased $66 million driven by:

- 7.5 PJ increase in external sales ($22 million) due to higher volumes directed to short-term wholesale contracts in Queensland and Victoria, partially offset by Business customer losses and lower retail usage in Victoria; and
- $0.2/GJ increase in unit margins ($44 million) despite an increase in procurement costs reflecting market driven price increases to wholesale customers, including higher oil prices.

Sources and uses of Gas (PJ)



5.1.3 Electricity and natural gas cost to serve

Year ended 30 June	2019	2018	Change $	Change %
Cost to maintain ($ per average customer[a])	(126)	(124)	(1)	1
Cost to acquire/retain ($ per average customer[a])	(43)	(46)	4	(9)
Elec & Natural Gas cost to serve ($ per average customer[a])	**(169)**	**(171)**	**3**	**(2)**
Maintenance Costs ($m)	(455)	(455)	–	–
Acquisition & Retention Costs[b] ($m)	(155)	(170)	15	(10)
Elec & Natural Gas cost to serve ($m)	**(610)**	**(624)**	**15**	**(2)**

(a) Represents cost to serve per average customer account, excluding CES accounts.
(b) Customer wins (FY2019: 527,000; FY2018: 631,000) and retains (FY2019: 1,796,000; FY2018: 1,894,000).

Year ended 30 June	2019	2018	Change $	Change %
Retail and Business	(411)	(428)	17	(4)
Wholesale	(62)	(63)	1	(1)
Corporate services and IT	(136)	(134)	(3)	2
Elec & Natural Gas cost to serve ($m)	**(610)**	**(624)**	**15**	**(2)**

During the year we commenced our transformation activities and are on track to deliver the target of >$100 million cost reduction by FY2021. Electricity and natural gas cost to serve reduced with the benefits of transformational activities beginning to be realised, with lower headcount, bad and doubtful debt, commissions and advertising. Bad debt expense as a percentage of total Electricity and Natural Gas revenue has decreased to 0.71% from 0.74% in FY2018.

Customer accounts

As at	30 June 2019			30 June 2018			
Customer Accounts ('000)[c]	**Electricity**	**Natural Gas**	**Total**	**Electricity**	**Natural Gas**	**Total**	**Change**
NSW[a]	1,193	312	1,505	1,200	284	1,483	22
Queensland	660	182	842	696	176	872	(30)
Victoria	558	474	1,032	545	472	1,018	14
South Australia[b]	229	223	451	225	213	438	13
Total	**2,639**	**1,191**	**3,830**	**2,666**	**1,145**	**3,811**	**18**
Average	**2,645**	**1,157**	**3,802**	**2,678**	**1,125**	**3,802**	**–**

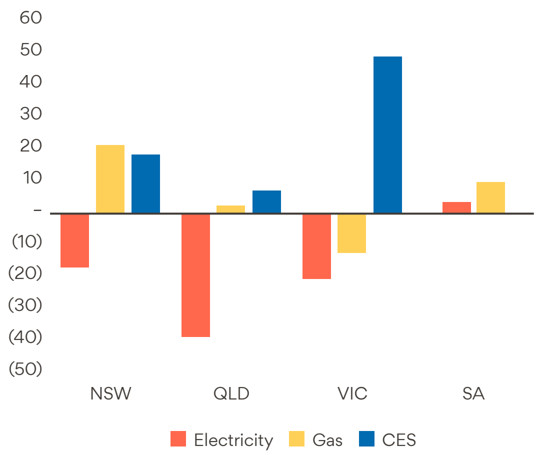
(a) Australian Capital Territory customers are included in New South Wales.
(b) Northern Territory and Western Australia customers are included in South Australia.
(c) Includes 233,000 CES customers (FY2018: 159,000).

Electricity customers reduced by 27,000, reflecting losses of 66,000 due to heightened competition in Queensland, Victoria and New South Wales, partially offset by 39,000 embedded network customers acquired as part of the OC Energy acquisition. Natural Gas customers increased by 46,000, primarily in NSW and South Australia, including 16,000 OC Energy serviced hot water customers.

We competed actively during the period, with churn of 16.3% compared to market churn of 22.3%. Since December 2018, market activity has moderated slightly.

In addition, at 30 June 2019, Origin had 8,000 Broadband customer accounts.

Customer Movement ('000)



5.1.4 LPG

Our LPG business is one of Australia's largest LPG and propane suppliers, and we procure and distribute LPG to residential and business locations across Australia and the Pacific. As at 30 June 2019, Origin had 362,000 LPG customer accounts, down from 370,000 customer accounts at 30 June 2018.

Year ended 30 June	2019	2018	Change	Change (%)
Volumes (kT)	426	450	(24)	(5)
Revenue ($m)	674	654	20	3
Cost of Goods Sold ($m)	(470)	(434)	(37)	8
Gross Profit ($m)	**204**	**220**	**(17)**	**(8)**
Operating Costs ($m)	(136)	(129)	(6)	5
Underlying EBITDA ($m)	**68**	**91**	**(23)**	**(25)**

Gross Profit decreased by $17 million due to higher shipping and fuel costs ($9 million) and lower volumes and margin in both Australia and Asia Pacific ($6 million). Operating costs increased $6 million due to labour and terminal maintenance cost increases.

5.1.5 Solar and Energy Services

Our Solar business provides installation of solar PV systems and batteries to residential and business customers, and provides ongoing support and maintenance services. Centralised Energy Services supplies both electricity and gas to owners and Body Corporates of buildings through embedded networks and centralised serviced hot water. During the period we acquired OC Energy, which added 55,000 customers, primarily in New South Wales and Victoria.

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Revenue	**216**	**186**	**30**	**16**
CES Gross profit	57	44	14	30
Solar Gross profit	26	22	3	18
Other Gross profit	6	21	(15)	(71)
Gross Profit	**89**	**87**	**2**	**2**
Operating Costs	(64)	(76)	13	(16)
Underlying EBITDA	**26**	**11**	**15**	**136**

Underlying EBITDA increased by $15 million primarily driven by CES including the acquisition of OC Energy in February 2019. The sale of Acumen resulted in a reduction in Other gross profit, offset by a reduction in operating costs.

5.1.6 Future Energy

Our Future Energy business is focussed on new business models to connect distributed assets and data to customers through:

- Developing a platform to connect millions of distributed assets
- Developing leading digital and analytics capability
- Investing in technology for new customer solutions both in front of and behind the meter

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Operating Costs	(15)	(19)	4	(21)
Investments	(35)	(9)	(26)	289

Lower operating costs during the period driven by lower consultancy costs. Investments comprise primarily the US$20 million minority equity investment in Intertrust Technologies Corporation, a US based private technology company aimed at developing new data driven products for the energy market.

5.2 Integrated Gas

Financial summary

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Share of APLNG	2,123	1,405	718	51
Integrated Gas Other (see section 5.2.2)	(231)	(154)	(77)	50
Underlying EBITDA	**1,892**	**1,251**	**641**	**51**
Underlying depreciation and amortisation	(18)	(22)	4	(18)
Underlying share of ITDA	(1,504)	(1,194)	(310)	26
Underlying EBIT	**370**	**34**	**336**	**997**

5.2.1 Share of APLNG

Underlying EBITDA

$2,123M

Up $718m or 51% vs FY2018

Production (37.5%)

255 PJ

In line with FY2018

Commodity revenue

36% ↑

vs FY2018

Operating cost

$1.0/GJ

Down 17% vs FY2018 (upstream operated)

Well cost

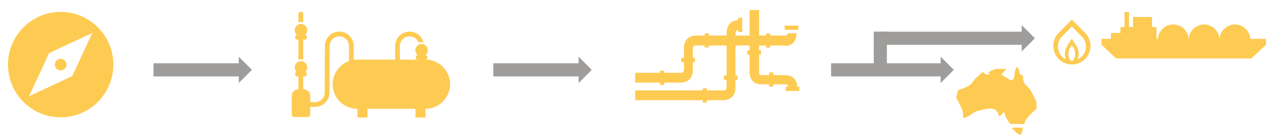
$1.4m/well

Down 26% vs FY2018 (standard unfracked vertical Surat well)

$943M

Net cash to Origin, up from $363 million in FY2018

Overview



Exploration and Appraisal | Drilling and Gathering | Processing and Transportation | Domestic customers | Liquefaction and export customers

Origin has a 37.5% shareholding in APLNG (an equity accounted incorporated joint venture). APLNG operates Australia's largest CSG to LNG export project (by nameplate capacity) and has Australia'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 two train LNG liquefaction facility at Gladstone in Queensland.

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

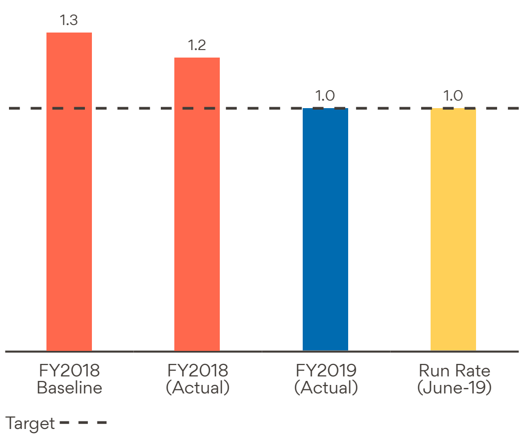
1 As per EnergyQuest EnergyQuarterly, June 2019. Approximately 21% of APLNG's 2P and 3P CSG reserves respectively (as at 30 June 2019), are subject to reversionary rights and an ongoing interest in favour of Tri-Star. Refer to section 7 for further information.

Operations

APLNG continued to deliver stable production in FY2019, despite planned upstream maintenance. APLNG shipped 124 cargoes in FY2019 and remains a large contributor to the Australian east coast domestic gas market, supplying 195 PJ in FY2019 (100% APLNG), ~30% of domestic east coast gas demand.

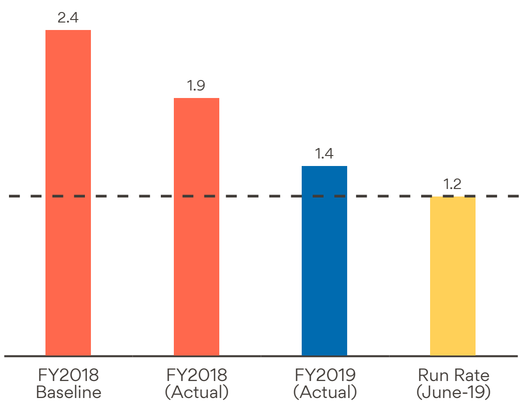
Under a smaller, leaner, asset-led structure, Origin, as upstream operator of APLNG, has been able to achieve its June 2019 run-rate targets of $1.0/GJ for operating costs and $1.2 million per standard unfracked vertical Surat well for Origin-operated areas.

Operating cost (A$/GJ)
(upstream operated)



Origin's operating cost per GJ has decreased from $1.2/GJ (FY2018) to target of $1.0/GJ for FY2019 and June run rate, reflecting lower overheads, reduced electricity costs and streamlined maintenance activities.

Cost per well (A$m/well)
(standard unfracked vertical Surat well)



Cost per well decreased from $1.9 million/well (FY2018) to $1.4 million/well (FY2019), with a June 2019 run rate of $1.2 million/well reflecting lower owners' costs, simplified well design, competitive tendering for rig and gathering contracts and execution efficiencies.

APLNG commenced the planned four yearly maintenance of 15 upstream operated gas processing facility trains during the year. Maintenance on 12 trains was completed during FY2019 and the remaining three are expected to be completed by the end of CY2019.

Construction of the Eurombah Reedy Creek Interconnect (ERIC) pipeline was finalised in FY2019 and brought online in July 2019, enabling connection of excess gas supply to processing capacity between Reedy Creek and Spring Gully fields.

During the year, APLNG announced a number of commercial agreements:

- New gas sales of more than 50 PJ to domestic manufacturing customers from development of a tender block in close proximity to existing Talinga infrastructure. Armour Energy is a 10% joint venture partner.
- Agreements for sharing QGC infrastructure and an oil-linked gas purchase of up to 350 PJ (2024–2034).
- An LNG customer has elected to defer delivery of 30 cargoes over six years (2019–2024). The customer will pay for the deferred cargoes and APLNG expects to re-sell the gas during the period 2019–2024, and then deliver the deferred cargoes during the period from 2025 to the end of the LNG sale and purchase agreement.

APLNG acquired various CSG interests from Tri-Star in 2002 that are subject to reversionary rights and an ongoing royalty in favour of Tri-Star. These interests represent approximately 21% of both APLNG's 2P and 3P CSG reserves (as at 30 June 2019), refer to section 7 for disclosure relating to Tri-Star litigation associated with these CSG interests.

Financial Summary

Profit and Loss

Year ended 30 June ($m)	2019		2018	
	100% APLNG	Origin share	100% APLNG	Origin share
Commodity and other revenue[(a)]	7,443	2,791	5,528	2,073
Operating expenses	(1,781)	(668)	(1,782)	(668)
Underlying EBITDA	**5,662**	**2,123**	**3,746**	**1,405**
Depreciation and amortisation	(2,116)	(794)	(1,853)	(695)
MRCPS interest expense	(602)	(226)	(605)	(227)
Project finance interest expense	(590)	(221)	(449)	(168)
Other financing expense	(72)	(27)	(83)	(31)
Interest income	51	19	17	6
Income tax expense	(699)	(262)	(222)	(83)
Underlying ITDA[(b)]	**(4,027)**	**(1,510)**	**(3,195)**	**(1,198)**
Underlying Profit	**1,635**	**613**	**551**	**207**

(a) Includes commodity revenue as reported in the Quarterly Report plus other revenue of $5 million (100%) in FY2019 related to cost recoveries (FY2018: $50 million (100%) primarily related to gas bank settlement and cost recoveries).

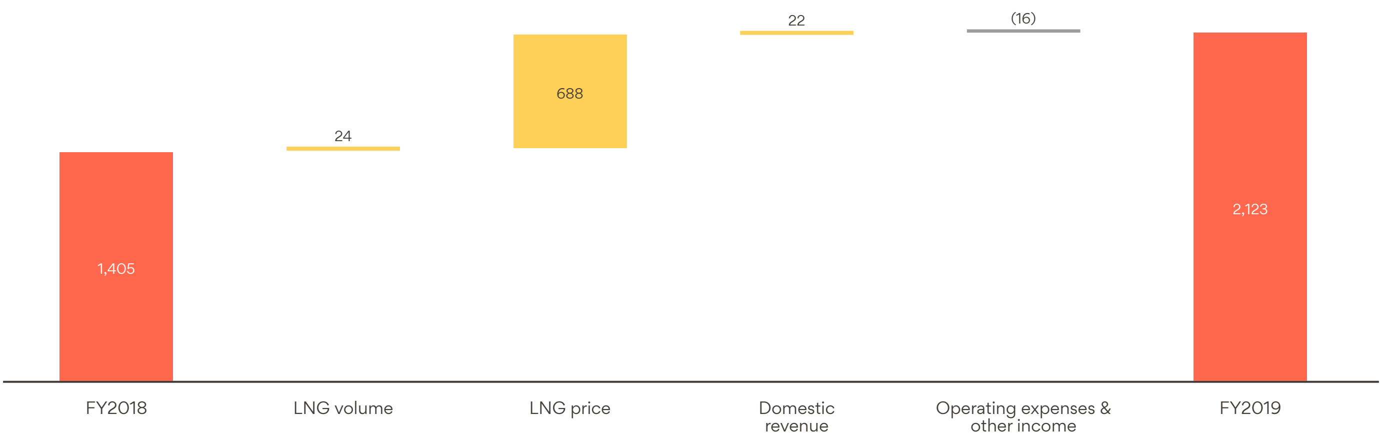
(b) See Origin 30 June 2019 Financial Statements note B1 for details relating to the $6 million difference between APLNG ITDA and Origin's reported share of ITDA.

Origin share of depreciation and amortisation increased $99 million to $794 million primarily driven by a lower AUD/USD rate as well as a review of future workover frequency impacting amortisation from April to June 2019.

Project finance interest expense increased due to write-off of unamortised fees from refinancing, foreign exchange movements and an increase in USD floating interest rates, partly offset by lower USD interest expense from refinancing and a reduction in debt during FY2019. See Section 4.6 for details relating to APLNG funding.

APLNG Underlying EBITDA (Origin share)

Movements in Origin Share of APLNG EBITDA ($m)



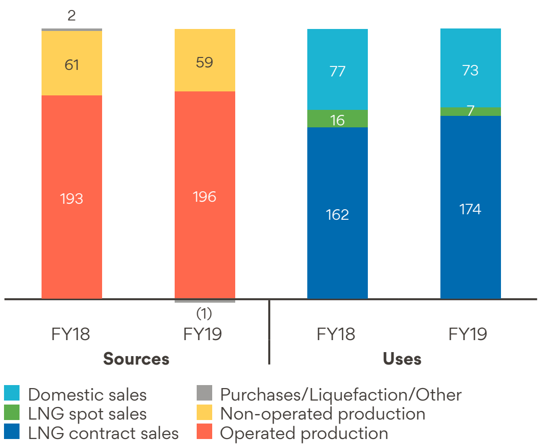
Origin share of APLNG Underlying EBITDA increased by $718 million primarily reflecting higher realised LNG prices and domestic oil linked gas prices as well as a lower AUD/USD rate.

Operating expenses and other income increase of $16 million primarily relates to increased royalties due to higher effective oil prices (–$73 million), FY2019 planned four yearly maintenance program costs (–$24 million) and lower other income (–$17 million), partly offset by one-off FY2018 write offs (+$65 million) including Gilbert Gully, FY2019 unit cost savings (+$27 million) and lower purchase costs (+$10 million).

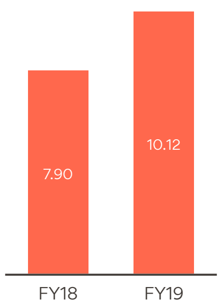
APLNG Volume Summary

Year ended 30 June Volumes (PJ)	2019 100% APLNG	2019 Origin share	2018 100% APLNG	2018 Origin share
Production volumes				
Operated	522	196	515	193
Non-operated	157	59	162	61
Total production	**679**	**255**	**676**	**254**
Purchases	32	12	45	17
Liquefaction/other	(35)	(13)	(41)	(15)
Sales volumes	**676**	**254**	**680**	**255**
Domestic gas sales volumes	195	73	205	77
LNG contract sales volumes	464	174	433	162
LNG spot sales volumes	17	7	42	16
Commodity revenue (A$m)	**7,436**	**2,789**	**5,478**	**2,054**
Domestic gas sales	983	369	923	346
LNG sales	6,453	2,420	4,555	1,708
Realised price (A$/GJ)	**11.00**		**8.06**	
Domestic Gas (A$/GJ)	5.04		4.50	
LNG (US$/mmbtu)	10.12		7.90	

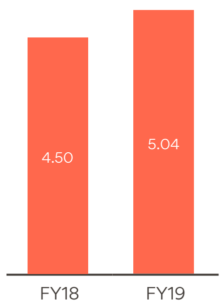
APLNG – source and uses of gas (Origin share) (PJe)



APLNG LNG price (US$/mmbtu)



APLNG domestic gas price (A$/GJ)



Origin's share of APLNG production was stable in FY2019 at 255 PJ, reflecting an increase in operated production despite four yearly planned maintenance on gas processing facilities, partially offset by a decrease in non-operated production.

The average realised LNG price increased 28% to US$10.12/mmbtu reflecting higher oil and spot LNG prices, despite lower prices towards the end of the year.

The average realised domestic gas price increased 12% to $5.04/GJ primarily from higher revenue on oil-linked sales.

Cash flow – APLNG 100%

Year ended 30 June	2019 ($m)	2018[(a)] ($m)	Change ($m)	Change (%)
Underlying EBITDA	5,662	3,746	1,916	51
Non-cash items in underlying EBITDA	(4)	159	(163)	(103)
Change in working capital	(34)	49	(83)	(169)
Other	(88)	(30)	(58)	193
Operating cash flow*	**5,536**	**3,924**	**1,612**	**41**
Capital expenditure*	(1,277)	(1,186)	(91)	8
Capitalised de-watering costs*	(101)	(109)	8	(7)
Interest income*	50	16	34	213
Proceeds from sale of assets*	30	–	30	n/a
Loan repaid by/(advanced to) Origin	31	(76)	107	(141)
Loans paid by other shareholders	9	33	(24)	(72)
Investing cash flow	**(1,258)**	**(1,322)**	**64**	**(5)**
Project Finance interest and transaction costs*	(513)	(418)	(95)	23
Repayment of project finance*	(808)	(915)	107	(12)
Other financing activities*	(85)	(70)	(15)	21
MRCPS interest	(611)	(603)	(8)	1
MRCPS buy-back	(1,987)	(360)	(1,627)	452
Shareholder cash calls	–	198	(198)	(100)
Financing cash flow	**(4,004)**	**(2,168)**	**(1,836)**	**85**
Net increase in cash and cash equivalents	**274**	**434**	**(160)**	**(37)**
Effect of exchange rate changes on cash*	113	41	72	176
Net increase in cash including FX movement	**387**	**476**	**(89)**	**(17)**
Distributable cash flow*	**2,945**	**1,284**	**1,661**	**129**

* Included in distributable cash flow. Distributable cash flow represents net increase in cash including FX movements before MRCPS interest and buy backs and transactions with shareholders.

(a) FY2018 has been reclassified to align to statutory financial statement classifications, no change to net increase in cash and cash equivalents.

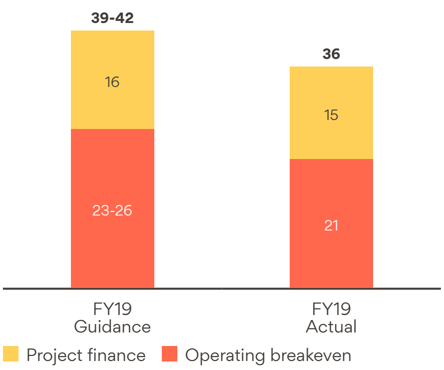
APLNG generated distributable cash flow of $2,945 million (Origin's 37.5% share: $1,104 million) at an effective oil price of US$73/bbl for FY2019 (FY2018: US$56/bbl) and after servicing project finance interest and principal. Net cash to Origin amounted to $943 million with surplus cash retained for operational and project finance requirements as well as consideration for the acquisition of Ironbark in August 2019.

APLNG breakeven

APLNG FY2019 distribution breakeven of US$36/boe is lower than FY2019 guidance of US$39–42/boe driven by:

- Lower Sustain and E&A capital expenditure spend due to deferral of activity and reduced scope including fewer wells requiring fracture stimulation from better than expected flow rates in Combabula/Reedy Creek
- Higher non-oil linked spot LNG and domestic revenue driven by a higher volume of domestic sales

Distribution Breakeven (US$/boe)
AUD/USD 0.72



APLNG operating cash costs (100%)

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Operated upstream operating expenses[(a)]	634	649	(15)	(2)
APLNG Corporate operating expenses[(b)]	94	82	12	15
Purchases	235	262	(27)	(10)
Downstream operating expenses	228	227	1	0
Royalties and tariffs[(c)]	433	239	194	81
Non-operated operating expenses	225	199	26	13
Other[(b)]	94	74	20	27
Total operating cash costs	**1,943**	**1,732**	**211**	**12**
Capitalised and other costs	(162)	50	(212)	n/a
Total operating costs per Profit and Loss	**1,781**	**1,782**	**(1)**	**–**

(a) Production from operated areas during the period was 522 PJ, equating to unit operating costs of $1.0/GJ (excluding pipeline and major turnaround costs).
(b) FY2018 reclassification of $39 million to include IT and marketing related costs within Corporate from Other.
(c) Reflects actual royalties paid. At break-even prices royalties and tariffs amounted to $139m (FY2018: $179 million).

Total operating cash costs increased $211 million primarily driven by higher royalties and tariffs of $194 million due to higher effective commodity prices and restructuring payments ($25 million). Operated upstream operating expenses decreased $15 million with $/GJ savings ($71 million) partly offset by major maintenance costs ($64 million).

Capitalised and other costs includes capitalised de-watering costs of $101 million (FY2018: $109 million). The $212 million reduction from FY2018 is driven by FY2018 write offs including Gilbert Gully ($109 million) not repeated and restructuring costs accrued in FY2018, but paid in FY2019.

APLNG capital expenditure (100%)

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Operated upstream – sustain	515	722	(207)	(29)
Operated upstream – infrastructure	122	39	83	213
Exploration & appraisal (E&A)	102	65	37	57
Operated SIB – including workover costs	179	105	74	71
Downstream	39	49	(10)	(21)
Non-operated	336	189	147	78
Other	(16)	17	35	n/a
Total capital expenditure	**1,277**	**1,186**	**90**	**8**

Total capital expenditure increased by $90 million due to increased non-operated development spend ($147 million) primarily on Arcadia, Angry Jungle and Fairview, an increase in infrastructure spend due to the construction of the ERIC pipeline ($62 million) and Talinga-Orana Gas Gathering Station ($32 million), an increase in operated SIB primarily due to higher workover spend ($83 million) and higher E&A due to drilling of deep conventional wells Burunga South 2 and Westgrove 9 and seismic surveys and drilling in Peat Flank, offset by a $207 million reduction in Operated upstream – sustain due to dollar per well savings, reduction in required scope and phasing of activity.

Operated upstream – sustain includes the cost of drilling 251 wells in FY2019 (FY2018: 290 wells) including 243 Surat vertical wells (FY2018: 273 wells) as well as costs of fracture stimulation of 91 wells (FY2018: 79 wells), completion, gathering, electrification, commissioning and owners' costs.

5.2.2 Integrated Gas – Other

This division comprises unconventional exploration interests in the Beetaloo Basin, the southwest Queensland Cooper Basin and a potential conventional development resource in the offshore Browse Basin. It also includes costs (net of recoveries) incurred as upstream operator and corporate service provider to APLNG, other costs incurred in managing Origin's investment in APLNG and exposure to LNG pricing risk and impacts of LNG trading positions held by Origin.

Operations

Beetaloo (Northern Territory)

Origin has a 70% interest in exploration permits over 18,500 km^2 in the Beetaloo Basin. In February 2017, a 2C contingent resource of 6.6TCF[1] (100%) relating to the Velkerri B shale dry gas play was booked following a production test of the Amungee NW-1H well. Interpretation of data obtained from the Amungee well, and other wells drilled in the Beetaloo Basin indicates a promising exploration opportunity with four stacked, unconventional hydrocarbon plays.

Stage 2 appraisal is underway, targeting the Kyalla and Velkerri shale liquids rich gas plays. Two horizontal appraisal wells are planned to be drilled, fracture stimulated and put on extended production testing during FY2020. A number of preparatory activities were completed during the year including sacred site clearances, other access negotiations, water bore drilling to obtain baseline data, well pad and access road preparation, environmental approvals, and securing all services required for the campaign including the Ensign 963 rig. Current well status:

- Kyalla – drilling and stimulation, water bore and civils Environment Management Plans have been approved and water extraction licence is in place. Water bores have been drilled and access road and well pad construction are nearing completion.
- Velkerri – water bore and access roads Environmental Management Plans have been approved and water extraction licence is in place. Awaiting well pad civils and drilling and stimulation approvals. Survey work is being completed and water bores are being drilled.

The objective of the Stage 2 campaign is to test the ability to flow liquids-rich gas from the two independent liquids-rich gas plays.

Financial Summary

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Origin only commodity hedging and trading	(199)	(111)	(88)	79
Other Origin only costs	(32)	(43)	11	(25)
Underlying EBITDA	**(231)**	**(154)**	**(77)**	**50**
Underlying depreciation and amortisation/ITDA	(12)	(18)	6	(34)
Interest income – MRCPS	226	227	(1)	–
Underlying profit/(loss)	**(17)**	**54**	**(72)**	**(131)**

Commodity hedging and trading reflects:

- Oil hedging costs of $115 million, inclusive of $34 million in premiums (FY2018: $95 million, inclusive of $68 million premiums); and
- LNG hedging and trading costs of $84 million (FY2018: $16 million) reflecting higher realised JKM prices.

Other Origin only costs reflect recoveries relating to Origin's upstream operatorship of APLNG.

1 Origin is not aware of any new information or data that materially affects the information included in the announcement to the ASX on 15 February 2017 and all material assumptions and technical parameters underpinning these estimates continue to apply and have not materially changed.

6. Sustainability performance

6.1 Climate: Getting energy right for the planet

We unequivocally support the United Nations Framework Convention on Climate Change's Paris Agreement to limiting the world's temperature rise to well below 2 degrees Celsius above pre-industrial levels. In October 2017, we released a paper on the resilience of our wholesale electricity portfolio to a low-carbon economy. We are in the process of updating our scenario analysis and the impact of a trajectory which limits the rise to less than 1.5°C and will be publishing this report in the second half of 2019.

We have a five-pillar approach to progressively decarbonise our business:

1. Exit coal-fired generation by 2032.
2. Significantly grow renewables in our portfolio.
3. Utilise our strong gas position as a lower-emissions firming fuel.
4. Empower customers with cleaner, smarter energy solutions.
5. Demonstrate leadership in climate change advocacy.

In line with this approach, we have made the following commitments:

- Reduce Scope 1 and Scope 2 greenhouse gas emissions[1] by 50% and value chain Scope 3 emissions[2] by 25% by 2032, targets approved by the Science Based Targets initiative; and
- Have more than 25% of our owned and contracted generation capacity from renewables and storage by 2020.

Australia is on track to become the world's largest exporter of LNG and is playing an important role in meeting energy demand while facilitating the global shift to lower emissions. Exports of LNG from APLNG to Asia contribute to lowering greenhouse gas emissions and reducing air pollution when replacing coal-fired generation and coal heating.

What have we done:

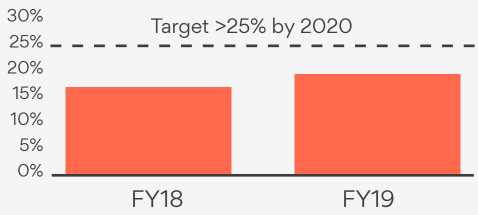
- Commenced offtake from the second stage of the 220 MW Bungala Solar Farm in South Australia and from Daydream Solar (150 MW), Clare Solar (100 MW) and Darling Downs Solar (110 MW) in Queensland.
- Installed the largest commercial office battery in Australia in our Melbourne office.
- Commenced an optimisation project at Eraring Power Station that yielded a 136,000 tonne[3] reduction in CO_2-e emissions in FY2019, and is targeting 1 million tonnes reduction in CO_2-e emissions by 2025.
- Held methane emissions from venting and leaks to approximately 0.1 per cent of metered sales from operated areas.
- Commenced a program to transition our small to medium passenger vehicle fleet to electric vehicles. Three vehicles have been ordered to date with up to 10 vehicles expected in our fleet by the end of 2019.

1 Scope 1 emissions are from sources that are owned or operated by Origin, in particular electricity generation and gas development. Scope 2 emissions result from the electricity that we consume to power our offices and operating sites.

2 Scope 3 encompasses indirect emissions, other than Scope 2, relating to our value chain that we do not own or control, including wholesale purchases of electricity from the NEM. LPG and corporate Scope 3 emissions are excluded as their emissions are not material.

3 Compared to FY2016 baseline performance.

Renewable + storage as % of total owned and contracted generation capacity



441,000

Origin customers had solar installed at their properties as at end of FY2019

136,000

tonnes CO_2-e

Reduction at Eraring

Taskforce on Climate-related Financial Disclosures (TCFD)

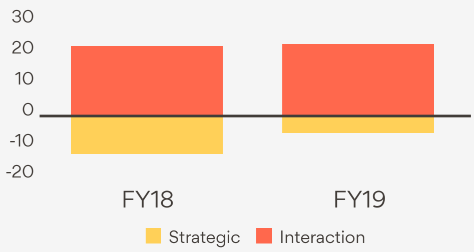
Report consistent with TCFD guidelines

Refer to our Sustainability Report released on 13 September 2019 for our FY2019 disclosures under TCFD: originenergy.com.au/about/sustainability/sustainability-reports

43,600

Customers on Power On hardship program

Net Promoter Score (NPS)



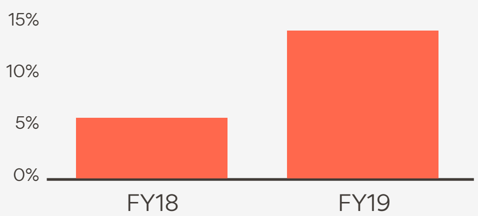
Top energy retailer

Rated by Reader's Digest

Top for customer satisfaction

Rated by Canstar Blue

Regional Procurement Spend as % of total spend



6.2 Getting energy right for our customers

More affordable energy

- We went beyond what is required by the Commonwealth Government's Default Market Offer (DMO) and ensured that no electricity customers on flat rate tariffs pay more than the DMO.
- Supported over 43,000 customers experiencing financial hardship with our Power On program.
- Co-developed and committed to an industry wide Energy Charter to embed a customer centric culture throughout the industry to create improvements in affordability and service.
- We continued to deliver the South Australian Government's SA Concessions Energy Discount Offer and increased the level of support by uplifting the discount from 18 per cent of usage and supply to 20 per cent on both gas and electricity.

Simpler, easier and more sustainable energy

- Rolled out the Usage Buster tool which splits customers' electricity usage by appliance.
- Expanded Origin Broadband allowing customers to easily organise their energy and broadband in one call.
- Launched multi-channel experiences across web and mobile apps, making it easier for customers to interact with us.
- Simplified the customer journey in moving houses or renewing a plan.
- Trialled a demand response initiative where customers can opt to have their air-conditioning temperature automatically adjusted on hot days while assisting to reduce peak electricity prices.

Origin's strategic NPS improved by seven points from FY2018 to a result of –6 in FY2019 including an eight point increase in the measure that Origin provides "good value for money".

APLNG remains committed to supporting the domestic market, supplying approximately 30% of east coast gas demand during FY2019 and entering into gas sale agreements with three Australian manufacturers to supply more than 50 PJ of gas.

6.3 Getting energy right for our communities

We respect the rights and interests of the communities in which we operate, by listening to them, understanding and managing the environmental, economic and social impacts of our activities. This support is reflected in our response to community feedback, which includes our *Regional Buy* program.

In FY2019, we spent $247 million with regional suppliers and we procured goods and services from 34 Indigenous businesses.

In the Beetaloo Basin in the Northern Territory, our host Traditional Owners are supportive of our project and are optimistic about the economic and employment opportunities it can deliver to their families and communities into the future.

We worked with the Northern Land Council and the Native Title holders to complete sacred site clearance and avoidance surveys, secured Aboriginal Areas Protection Authority certification for nine potential exploration locations and participated in seven on-country meetings with Native Title holder families. Our agreements with Native Title holders are secured through mutual negotiations guided by the principles of free, prior and informed consent.

We exceeded our environmental performance target with no environmental consequence incidents occurring during FY2019. An environmental consequence incident is an incident that results in an actual consequence of a moderate short-term impact to the environment (or above).

Through the Origin Foundation we support programs which enable equality of educational opportunity for young people – particularly those from rural and regional locations, Aboriginal and Torres Strait Islander heritage.

The Foundation's volunteer program was recognised at the 2018 Workplace Giving Excellence Awards, winning GOLD in the 'Best Pro Bono/Volunteering' category. We were also recognised by GoodCompany, who ranked Origin number one in their Top 40 Workplaces to Give Back survey for 2019, in recognition of our matched giving and volunteering programs.

6.4 People

Our people are critical to Origin's success. We employed 5,360 people at the end of FY2019, 63 per cent were males and 37 per cent were females.

Our engagement score was 61 per cent, consistent with last year's result despite organisational changes throughout the year. We remain ahead of the energy and utilities industry engagement score, however, below our FY2019 target of 68 per cent.

We achieved 30 per cent of women in senior roles in FY2019 and continue to deliver gender pay equality on an equal pay for equal work basis.

Origin continues to be recognised as an Employer of Choice for Gender Equality by the national Workplace Gender Equality Agency and remains accredited by the Australian Breastfeeding Association as a Breastfeeding Friendly organisation.

6.4.1 Personal safety

Everyone has a part to play in making Origin a safe workplace so we, and those impacted by our activities, can all return home safe and well at the end of every workday.

Following an improvement in our TRIFR performance over the previous two years, in FY2019 we did not meet the expectation we set for ourselves. Disappointingly, our TRIFR increased to 4.5 – which means 35 more people were injured than in FY2018.

This decline in personal safety performance has reinforced the need for us to do better. We all remain committed to preventing injuries and maintaining zero fatalities in our workplace. We are consolidating our Safety Leadership Programs into one Origin-wide program that equips our people with consistent knowledge and understanding of the tools and techniques that drive an HSE focused culture where everyone is accountable, mindful of risk and continuously learning.

In FY2019, there were no Tier 1 and eight Tier 2 process safety events, an improvement on the FY2018 performance. A contributing factor was the introduction of a company-wide process safety dashboard to improve the reporting and visibility of key process safety indicators.

$25 million

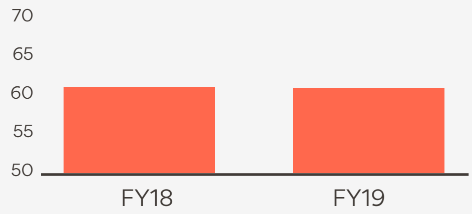
Origin Foundation support for communities since 2010

2,000

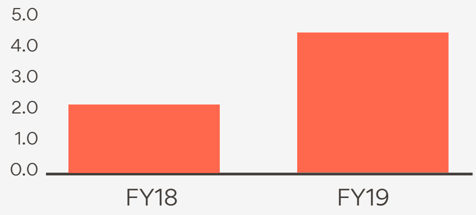
instances of volunteering

Origin employees participated

Staff engagement



TRIFR



7. 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.

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

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
Competition	Origin operates in a highly competitive retail environment which can result in pressure on margins and customer losses. 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.	• Our strategy to mitigate the impact of this risk on our retail business is to effectively manage customer lifetime value and build customer loyalty and trust by delivering simple, seamless and personalised customer experiences and offering innovative and differentiated products and services. • 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	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. Advances in technology have the potential to create new business models and introduce new competitors.	• Origin actively monitors and participates in technological developments through local and global start-up accelerator programs, trialling new energy technology and exploring investments in new products or 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.
Changes in demand for energy	Any decrease in energy demand driven by price, consumer behaviour, mandatory energy efficiency schemes, Government policy, weather and other factors can reduce Origin's revenues and adversely affect Origin's future financial performance. Conversely, failure to adequately prepare for any increases in future energy demands, including the emergence of new sources of demand, may restrict Origin in optimising our future financial opportunities.	• Origin is partially mitigating the impact of this risk by applying advanced data analytics capability to smart meter data to better predict customer demand and enable Origin to develop data-based customer propositions. • Our strategy of growing our gas reserves, increasing our supply of renewables, and investing in new technology supports Origin's ability to meet future increases in energy demand.
Regulatory policy	Origin has broad exposure to regulatory policy change and other government interventions. Changes to policy and other government interventions will 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 capacity, government direct investment in generation, energy market design, climate change policies, domestic gas market interventions, and royalties and taxation policy.	• 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.
Climate change	Climate change impacts many parts of Origin's business. Key risks and opportunities include ongoing decarbonisation of energy markets, decreased demand for fossil fuels in some markets, reduced lifespan of carbon-intensive assets, changes to energy market dynamics caused by the intermittency of renewables and community demand for lower-carbon sources of energy. There is also increased risk of climate change related litigation against Origin and/or 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.	• Our strategy for transitioning to a carbon constrained future is focused on growth in renewables, gas and cleaner, smarter customer solutions. Origin has prepared for a range of decarbonisation scenarios. • Origin has committed to significantly growing supply of renewable generation, including 1,200 MW of committed large scale solar and wind energy since March 2016. • Origin uses the flexibility in its gas supply and peaking generation capacity to manage the intermittency of renewables. • Origin is using the framework recommended by the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) for governance oversight and reporting of our climate change risks. • Committed to halving Scope 1 and Scope 2 greenhouse gas emissions and reducing value chain Scope 3 emission[1] by 25% by 2032 in a science-based target.

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	Origin has a long-term exposure to international oil, LNG and gas prices through the sale of gas 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. 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.	• 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 in foreign currency long-term borrowings, through the sale and purchase of gas and LPG, and through its investments in APLNG and the Company's foreign operations. Interest rate movements and foreign exchange fluctuations could lead to a decrease in Australian dollar revenues or increased payments in Australian dollar terms.	• 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.	• 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.	• 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	Malfunctioning plant, major infrastructure failure, incorrect application of procedures, unsafe practices, a physical security breach, a cyber attack or a major weather event such as a cyclone, flood or earthquake may lead to the loss of lives, asset damage, environmental damage and other impacts to third parties. A production outage or constraint, network or IT systems outage, would affect Origin's ability to deliver electricity and gas to its customers. A serious incident or a prolonged outage may also damage Origin's financial prospects and reputation.	• Core operations are subject to comprehensive operational, safety and maintenance procedures and directives. • 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	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.	• 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. • 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.
	A third party's actions may 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.	• 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.

Risk	Consequences	Management
Cyber security	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.	• A dedicated cyber risk team, reporting directly to the executive responsible for Risk, is responsible for implementing a Board-approved cyber strategy. • External cyber security specialists are regularly employed to assess our cyber security profile, including penetration testing. • 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.
APLNG gas reserves, resources and deliverability	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. As at 30 June 2019, 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.	• 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 and/or acquires reserves from alternate sources. • APLNG is progressing an exploration campaign to test high materiality plays that, if successful, could mitigate the deliverability risk. • APLNG continues to progress commercial arrangements for long-term gas supply, and has the ability to substitute gas or LNG to meet contractual requirements if required.
Conduct	Unethical business practice or failure to comply with Origin's Values may affect Origin's risk profile by impacting its business operations, financial prospects or reputation, particularly with customers and community stakeholders.	• Origin's Purpose, Values, Behaviours and Code of Conduct guide conduct and decision making across Origin. • All Origin's people are trained every two years in Origin's Code of Conduct, and we conduct training for insider trading, privacy and competition and consumer law. • Conduct risk is identified as a material risk within Origin's risk management framework and is regularly reported to the appropriate Board Committee. Controls specific to the different parts of Origin's business are the accountability of Business Units and are subject to Internal Audit.
Joint venture	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.	• 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.

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 21% of APLNG's 3P CSG reserves (as at 30 June 2019), and approximately 21% of APLNG's 2P CSG reserves (as at 30 June 2019).

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 was revenue for purposes of the 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. These relate to other aspects of the reversion trigger (including as to the calculation of interest) and the calculation of the royalty payable by APLNG to Tri-Star. The outcome of these other claims may impact when reversion may occur in the future but will not result, if determined in favour of Tri-Star, in reversion having already occurred.

APLNG denies these claims and filed its defence and counter-claim in April 2016. Tri-Star responded with its reply and answer to APLNG's defence and counter-claim in March 2018.

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 $3.1 billion (as at 31 December 2015); 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, in its reply and answer:
  - estimated the value of such gas to be $2.06 billion (as at 31 December 2017) and approximately $1.08 billion per annum thereafter. Tri-Star has sought leave of the court to update its estimate of the value of such gas to be approximately $3.37 billion (as at 31 March 2019) and approximately $1.3 billion per annum thereafter in an amended statement of claim (discussed further below); and
  - alleged that it should be entitled to set-off the value of such gas from any amount owing to APLNG arising from its 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.

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.

Tri-Star has also commenced proceedings against APLNG ('markets proceeding') which allege that APLNG breached three CSG joint venture 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. Tri-Star is seeking damages and/or an order that APLNG offer Tri-Star (and the other minority participants in those CSG joint venture agreements) the opportunity to participate in those sales agreements for their proportionate share of production from those three CSG joint ventures.

In July 2019, Tri-Star filed applications for the leave of the court to file an amended statement of claim in each of the reversion proceeding and the markets proceeding. APLNG has objected to Tri-Star's application for leave and the amended claims being filed in the form proposed by Tri-Star because they seek to (among other things) add new claims that APLNG consider to be statute-barred.

Tri-Star's draft amended statement of claim in the reversion proceeding:

- includes a new claim for damages for the value of the gas taken and sold by APLNG since the alleged past reversion dates (a claim originally pleaded by Tri-Star in its reply and answer); and
- seeks additional determinations from the court in relation to (amongst other things) the calculation of aspects of the reversion trigger including the calculation of interest and the nature and quantum of APLNG's expenditures that can be included, the calculation of royalty payable by APLNG to Tri-Star and, if reversion occurs, the extent of the reversionary interests principally with respect to Tri-Star's ownership and/or rights to use or access certain project infrastructure.

Tri-Star's draft amended statement of claim in the markets proceeding seeks additional declarations and/or other relief in respect of:

- the nature and scope of the obligations of APLNG as operator pursuant to the CSG joint venture 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 venture agreements.

The court hearing to decide the extent to which the amendments proposed by Tri-Star are permitted to be included in its pleadings is scheduled to occur in September 2019.

APLNG intends to defend the claims in both proceedings (as amended, to the extent that leave of the court is granted for amendments to be made).

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.

Once Tri-Star's amended pleadings have been finalised, APLNG will file its response in each of the markets proceeding and reversion proceeding. Once the pleadings have closed, the usual court process would involve a period of document disclosure, potentially court-ordered mediation and then finally a hearing. The timing for each of these steps is difficult to predict at this stage. APLNG expects that the two proceedings will be managed in parallel.

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 4.3 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. Non-IFRS 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.

Appendices

Appendix 1: Financial instruments and fair value adjustments

($m)	Financial asset/(liability) 30 Jun 2019	Financial asset/(liability) 30 Jun 2018	Balance Sheet Impact: Inc/(dec) in financial instrument	Balance Sheet Impact: Inc/(dec) in other net assets	Balance Sheet Impact: Total inc/(dec) in net assets	Income Statement Impact: Gain/(loss) included in Underlying Profit	Income Statement Impact: Pre-tax Gain/(loss) excluded from Underlying Profit	Income Statement Impact: Post-tax Gain/(loss) excluded from Underlying Profit
Oil and gas derivatives								
Oil and gas hedges – Integrated Gas	(60)	(160)	100	(159)	(59)	(146)	87	60
Oil and gas hedges – Energy Markets	21	92	(71)	74	3	5	(2)	(1)
Other commodity hedges	(8)	14	(22)	33	11	11	–	–
	(47)	**(54)**	**7**	**(52)**	**(45)**	**(130)**	**85**	**59**
Electricity derivatives								
Electricity swaps and options	172	13	159	2	161	176	(15)	(11)
Power purchase agreements	(512)	(405)	(107)	104	(3)	104	(107)	(75)
Environmental derivatives	(127)	(123)	(4)	–	(4)	–	(4)	(3)
	(467)	**(515)**	**48**	**106**	**154**	**280**	**(126)**	**(88)**
FX and interest rate derivatives								
Foreign exchange contracts	(195)	(249)	54	(64)	(10)	1	(11)	(8)
Foreign currency debt hedges	658	805	(147)	109	(38)	–	(38)	(27)
Interest rate swaps	(18)	(6)	(12)	–	(12)	–	(12)	(8)
	445	**550**	**(105)**	**45**	**(60)**	**1**	**(61)**	**(43)**
Decrease in fair value of derivatives (Note A1(a))							**(102)**	**(72)**
Other financial assets/liabilities								
MRCPS issued by APLNG[1]	3,045	3,465	(419)	970	551	226	325	228
Environmental certificates and surrender obligation	2	(151)	153	(824)	(671)	(715)	44	31
Settlement Residue Distribution Agreement units	53	46	7	(5)	2	(20)	22	15
Other investments	61	131	(70)	70	–	–	–	–
Increase/(decrease) in fair value of other financial assets/liabilities (financial statements Note A1(b))							**391**	**274**
Foreign exchange loss on LNG-related financing							**(90)**	**(63)**
Total fair value and foreign exchange movements							**199**	**139**

Reconciliation of net derivative liability to financial statements

Derivative assets	1,434	1,639
Derivative liabilities	(1,503)	(1,658)
Net derivative liability	**(69)**	**(19)**

1 June 2018 MRCPS has been restated for comparative purposes only. Under AASB 9, from 1 July 2018, MRCPS is held at fair value, rather than at cost.

Appendix 2: Reconciliation to FY2018 cash flow

Year Ended 30 June ($m)	2018 Pre-reclass	Electricity futures collateral	Share based remuneration	Bad debt Expense	2018 Post-reclass
Underlying EBITDA	2,787	–	–	–	2,787
APLNG Underlying EBITDA (non-cash)	(1,405)	–	–	–	(1,405)
Non-cash items in Underlying EBITDA	136	–	25	88	250
Change in working capital	(245)	(170)	–	(88)	(503)
Other	(82)	–	(25)	–	(108)
Tax/Other	(38)	–	–	–	(38)
Cash flow from operating activities	**1,153**	**(170)**	**–**	**–**	**983**
Electricity Futures Collateral (previously in financing activities)	(170)	170	–	–	–

Appendix 3: Energy Markets segment revenue reconciliation

The table below reconciles the difference between segment revenue and customer revenue disclosed in the Electricity, Natural Gas, LPG and Solar & Energy Services tables.

Year ended 30 June	2019 ($m)	2018 ($m)	Change ($m)	Change (%)
Energy Markets Segment Revenue	14,293	14,344	(51)	–
Less pool and other revenue:				
Internal Generation	(2,050)	(1,907)	(143)	8
Renewable PPAs[(a)]	(40)	(190)	150	(79)
Other PPAs[(a)]	(27)	(80)	53	(66)
Pool Revenue	**(2,117)**	**(2,177)**	**60**	**(3)**
Other[(b)]	(96)	(111)	14	(13)
Total Customer Revenue	**12,080**	**12,057**	**23**	**–**

(a) FY2019 includes only gross settled PPAs, following a change in the revenue recognition policy from 1 July 2019. FY2018 included both net settled and gross settled PPAs.
(b) Other includes ancillary services, transmission use of system and other items which are partially offset in cost of energy.


origin

Remuneration Report

For the year ended 30 June 2019

The Remuneration Report (Report) for the year ended 30 June 2019 (FY2019) forms part of the Directors' Report, and has been prepared in accordance with the *Corporations Act 2001* (Cth) (the Act) and in compliance with AASB 124 *Related Party Disclosures*, 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 FY2019.

FY2019 remuneration outcomes

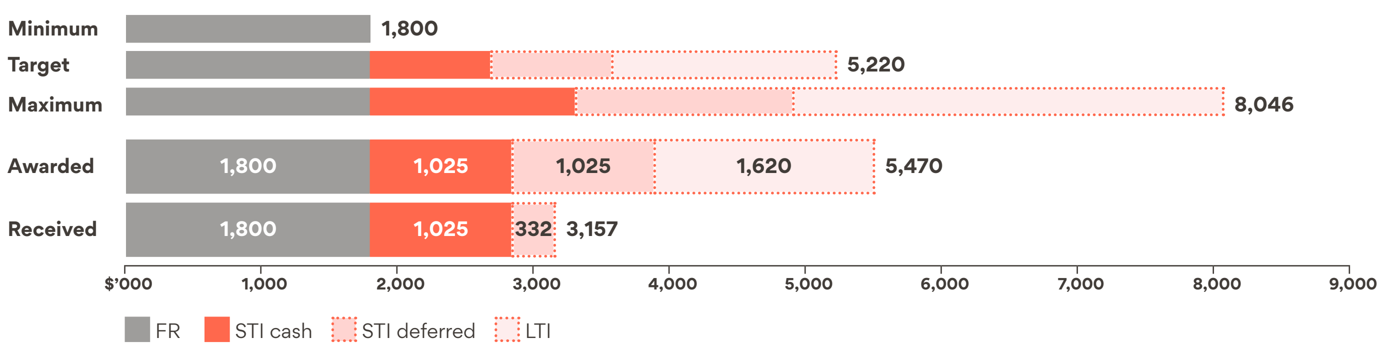
Remuneration outcomes for FY2019 for the CEO are summarised below. The CEO's Short Term Incentive (STI) scorecard outcome for the year was 113.9% of target (which also represents 113.9% of his Fixed Remuneration (FR) or $2.05m) compared to 123.0% of FR in the prior year. The average Executive KMP STI payout as a percentage of the dollar target values was 123.0%, compared to 129.1% in the prior year. These outcomes reflect strong outperformance for financial metrics, above target for customer metrics and below target for people metrics.

No vesting occurred in FY2019 from prior year Long Term Incentive (LTI) allocations. This reflects the fact that recent strong short term outcomes are yet to be translated into sustained long-term share price growth.

The share price decline during the year impacted the value of management's deferred compensation, unvested incentives and equity holdings. This reflects the inherent shareholder alignment created by the various equity components of our framework, which we believe responded appropriately. The creation of sustainable shareholder value remains of utmost focus. The failure to meet the shareholder return tests resulted in zero vesting for Options and for PSRs awarded in October 2014, and these were forfeited during FY2019.

The diagram below illustrates the amounts awarded for FY2019, including conditional pay that may vest in the future, as detailed in section 4.5. This corresponds to a level just above target total remuneration. The remuneration actually received during FY2019 (which includes vesting of prior years' deferred remuneration, as detailed in section 4.6) corresponded to a level between minimum and target of the CEO's total remuneration (section 3.6).

CEO pay received in and awarded for FY2019, relative to remuneration package range



FY2019 changes

During the year, no material changes were made to our remuneration framework. We reviewed the framework to ensure alignment with our purpose, strategy, values and behaviours. We balanced metrics which were within management's control and those which were not, but materially influence our shareholders' experience, such as commodity prices. We ensured our focus on long-term decision making was reflected in the choice of short-term metrics and long-term measures of success consistent with that focus. We reviewed the balance of fixed versus at risk remuneration and undertook comprehensive benchmarking to ensure competitive levels of remuneration opportunity. We incorporated a specific metric that reflects how our executives model our values and behaviours, and considered non-financial risks as inputs into the overall exercise of discretion that remained a key element of our framework.

LTI metrics continue to reflect belief that sustainable creation of shareholder value is the most reliable evidence of the effectiveness of all the strategic inputs, including customer, people and sustainability initiatives. ROCE is similarly retained as an internal metric predictive of value creation.

As disclosed in the FY2018 report, after two years in the role, the CEO's FR was realigned to market benchmarks effective 1 July 2018. The 5.9% uplift in fixed remuneration was offset by a reduction in STI target opportunity. Other Executive Leadership Team (ELT) members' FR was also realigned to market benchmarks reflecting their tenure in the roles. The details are outlined in section 4.3.

Greg Lalicker was appointed as an independent, Non-executive Director during the year. There were no other changes to KMP during the year or to the date of preparation of the report.

FY2020 plans and focus

FR changes effective early in FY2020 for Executive KMP are expected to average less than 2% in line with general executive market movements, compared with general uplifts of around 2.5% for the broader organisation. No changes are envisaged to incentive structure or opportunity levels in FY2020.

Following a review of fee levels, the RPC recommended no changes to base fees for the Chairman or Non-executive Directors, or for the Chairman and members of the Audit Committee for FY2020. Reflecting the increase in other Committee workloads and to bring closer alignment across Committees, the Chairman fees for the Risk Committee and the Health, Safety & Environment Committee were aligned with those for the RPC, and for those three Committees the Member fees were set at half the respective Chair fee. Total fees remain well within the cap approved by shareholders in October 2017.

A key focus of the RPC is to ensure that our remuneration policy is fit for purpose. It needs to generate outcomes that appropriately reflect the performance of the Company and our executives as well as retain, attract and fairly reward talented executives and promote discretionary effort. As our strategy develops, so too will elements of the remuneration framework to ensure alignment. The RPC continues to test the remuneration framework against these objectives. We review various alternative structures, engage openly with our major shareholders, proxy advisers and remuneration experts, and seek to simplify and refine the framework in line with changing industry conditions. This process will result in refinements to the annual STI metrics and potential further simplification of our framework going forward.

Scott Perkins
Chairman, Remuneration and People Committee

Report structure

The report is divided into the following sections:

1 Key Management Personnel (KMP)

This section provides details of the Directors and named Executives subject to the disclosure requirements above who form the focus of this report.

2 Remuneration link with Company performance and strategy

This section describes the connection between the remuneration framework, the Company's strategy and performance against that strategy.

3 Remuneration framework details

This section explains each element of the framework. This includes the process for setting KMP remuneration arrangements, the potential value range of those arrangements, and fixed versus variable nature of each remuneration element.

4 Company performance and remuneration outcomes

This section summarises Company performance over the last five years, with particular focus on FY2019, and corresponding remuneration outcomes. Outcomes are expressed in terms of amounts paid and awarded in respect of FY2019, and amounts actually received in FY2019 that relate to both current and prior years' awards.

5 Governance

This section describes the control of the remuneration process exercised by the Board and the RPC. Through their respective oversight, discretionary powers, risk management, and plan design, these serve to ensure that the framework is fit for purpose and prevents the award (or retention) of inappropriate benefits.

6 Non-executive Director (NED) fees

This section describes the basis for the payment of fees to NEDs for the services they provide.

7 Statutory tables and disclosures

This section includes an overview of executive service agreements, other statutory disclosures not covered in earlier sections, and remuneration information prepared in accordance with accounting standards. Those standards require equity-related items to be shown on the basis of amortised fair values. Those values are not actually provided to executives and therefore differ from the allocated and received amounts shown in the sections above.

1. Key Management Personnel (KMP)

The report discloses the remuneration arrangements and outcomes for people listed below, who are those 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	Appointment	RPC
Non-executive	Board	G Cairns	Chairman, independent	23 October 2013	✓
Non-executive	Board	J Akehurst	Independent	29 April 2009	
Non-executive	Board	M Brenner	Independent	15 November 2013	
Non-executive	Board	T Engelhard	Independent	1 May 2017	✓
Non-executive	Board	G Lalicker	Independent	1 March 2019	
Non-executive	Board	B Morgan	Independent	16 November 2012	
Non-executive	Board	S Perkins	Independent	1 September 2015	Chair
Non-executive	Board	S Sargent*	Independent	29 May 2015	✓
Executive	Board	F Calabria	Chief Executive Officer (CEO)	19 October 2016	
Executive		L Tremaine	Chief Financial Officer (CFO)	10 July 2017	
Executive		J Briskin	Executive General Manager (EGM), Retail	5 December 2016	
Executive		G Jarvis	EGM Energy Supply & Operations	5 December 2016	
Executive		M Schubert	EGM Integrated Gas	1 May 2017	

* Steve Sargent is also Chair of the Origin Foundation

Although focused on the remuneration arrangements and outcomes for the KMP listed in the table above, the report also provides a perspective across the broader ELT.

The term "senior executives" in this report is a collective reference to the ELT excluding the CEO. The term "Other Executive KMP" (abbreviated "Other" in tables and charts) refers to the three Executive General Managers (EGMs) (for Retail, Energy Supply & Operations, and Integrated Gas).

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 and summarised in the diagram below.

Strategy

Leading the transition to a cleaner, smarter and customer-centric future

Connecting customers to the energy and technologies of the future; Leading customer experience and solutions; Accelerating towards clean energy; Embracing a decentralised and digital future; Striving to be a low-cost operator; Developing resources to meet growing gas demand; Maintaining disciplined capital management.

Remuneration principles

Attract and retain the right people	Pay fairly	Drive focus and discretionary effort
The framework secures high calibre individuals from diverse backgrounds and industries, with the talent to execute the strategy.	The framework is market competitive. Outcomes are a function of Company performance, reflect our behavioural expectations and our values, and align with shareholder expectations.	The framework encourages executives to think and act like owners and to deliver against long-term strategies and the short-term business priorities that are expected to drive long-term outcomes.

Remuneration framework

Element	Performance measures	Link to principles and strategy
Fixed Remuneration (FR) Comprises cash salary, superannuation and benefits. *Details in section 3.1*	Determined by the scope of the role and its responsibilities and benchmarked annually against similar roles.	Set at competitive levels to attract and retain the right people and to pay fairly.
Variable Remuneration (VR) A significant proportion of total pay is "at risk" to reward outperformance, the majority delivered in deferred equity to build executive shareholding. *Details in sections 3.2 and 3.6*	Divided into short term and long term as set out below.	A significant proportion of total remuneration is set as VR ("at risk"), tied to the achievement of specific strategy related objectives in order to drive focus and discretionary effort.
Short Term Incentive (STI) Annual bonus opportunity, half paid in cash, half in shares restricted for two years *Details in section 3.3 and 3.5*	Metrics arising from a balanced scorecard of objectives (generally 60% financial, 40% non-financial) including a behaviour assessment.	Metrics are shorter-term milestones that are expected to contribute to longer-term value creation. Metrics link to financial performance, operating efficiency, customer experience, safety, and measures supporting the attraction and retention of the right people.
Long Term Incentive (LTI) Granted in performance share rights allocated at face value, deferred for a total of four years. *Details in section 3.4 and 3.5*	Internal (return on capital employed) and external (relative total shareholder return) performance metrics measured over three years.	Metrics reflect belief that sustainable creation of shareholder value is the most reliable evidence of all the strategic inputs, including customer, people and sustainability initiatives. ROCE similarly included as internal metric predictive of shareholder value creation.

Minimum shareholding requirement (MSR)	Relatively high shareholding requirements result in executives thinking like owners, thereby aligning with shareholders (*details in section 2.3*)
Robust governance	Manages risk and protects against reward for failure (*details in section 5*)

2.2 Behaviour assessment

Remuneration is aligned to market benchmarks for delivering against both short and long-term metrics that are expected to drive sustained creation of shareholder value. 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 behaviour assessment (based on behaviourally anchored rating scales or BARS methodology) now forms part of the framework.

2.3 Minimum shareholding requirement (MSR) for senior executives

A key objective of the framework is to promote employee share ownership and to encourage employees to think and act as owners. This in turn drives focus and incentivises discretionary effort. Equity is therefore a key element of both the STI and LTI plans. This is supplemented by other share plan arrangements that incorporate concessional tax provisions, salary sacrifice, and share purchase and matching plans (section 3.7).

All senior executives are required to build and maintain a minimum shareholding in the Company within four years of ELT appointment. The MSR is the equivalent of 200% of FR for the CEO, and 100% of FR for ELT members. A disposal restriction applies until the MSR is met. The restriction is in addition to any other trading or holding lock restriction and applies to shares released or vested from equity incentive grants after 1 July 2017, except to the extent reasonably required to meet taxation obligations. Restricted Shares (RS) and unvested equity that is not subject to performance hurdles, may be counted towards the MSR. Executive KMP shareholdings are shown in section 7 (table 7-3).

2.4 Framework review

The RPC reviews the operation of the framework on an ongoing basis to verify that remuneration outcomes are consistent with its principles. As part of that process the RPC monitors regulatory and market developments both domestically and internationally, takes expert advice, and engages with stakeholders including proxy advisors and major shareholders (see section 5).

3. Remuneration framework details

3.1 Fixed Remuneration (FR)

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

FR is reviewed annually. ELT roles are benchmarked with reference to the S&P/ASX 50 (excluding the six largest organisations), and other roles are benchmarked against independent third party references (primarily Korn Ferry's "all organisations" dataset). The policy is for FR to approximate the 50th percentile (P50) of these markets. In the absence of special factors, new or newly promoted incumbents commence below this reference and move to P50 over time. Roles are positioned above this reference where it is appropriate for key talent retention purposes or where it is necessary to attract and secure key skills to fill a business-critical role.

FR levels and movements for FY2019 are identified in section 4.3.

3.2 Total Remuneration (TR) and benchmarks

Total Remuneration (TR) is the sum of FR and VR. The range of possible TR values is calculated according to the table below.

TR	=	FR	+	STI	+	LTI
TR minimum	=	Yes	+	None awarded	+	None awarded
TR target (TRT)	=	Yes	+	STI awarded at the target level	+	Full face value awarded; on the assumption that 50% will vest (this is the risked or "expected" value). See section 3.4
TR maximum (TRM)	=	Yes	+	STI awarded at the maximum level	+	Full face value awarded; on the assumption that 100% will vest (this is the unrisked or maximum value)

The calculations represent "present day values". They exclude the potential impact of future share price movements on equity values which can reduce or increase the ultimate value of the equity components (deferred STI and LTI).

TR is benchmarked against the same peer group markets as for FR, measured at TRT. Origin's TRT and TRM are benchmarked to be at approximately P50 and the 75th percentile (P75) of market TRT respectively. When Origin strongly performs it is intended to provide a total reward that matches upper quartile market target outcomes.

When considering market positioning of remuneration the RPC considers three references FR at P50, and TRT at P50 and P75. Market variation means that exact alignment with all three is rarely possible.

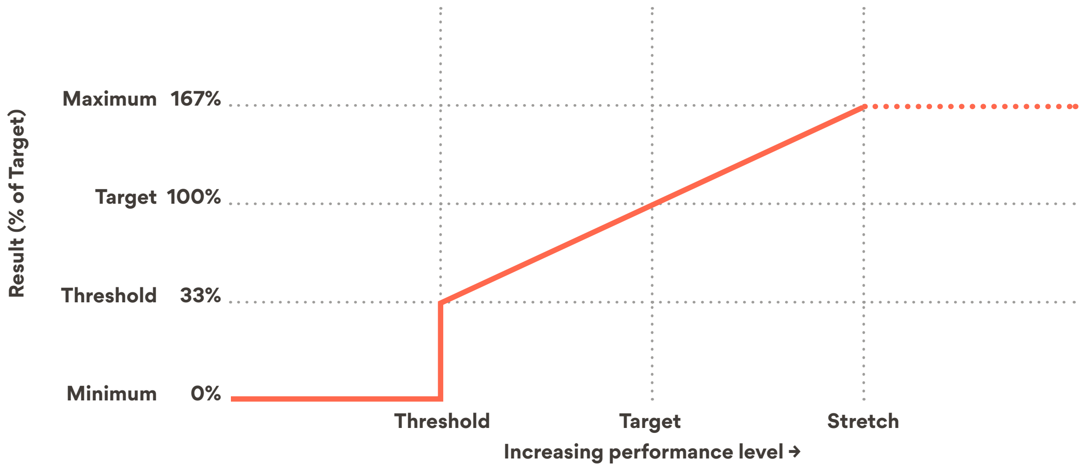
In setting VR opportunity levels, the RPC also has regard for market practice for the split between STI and LTI, and increasing the weighting toward LTI for the more senior roles (which tend to be longer-term focused).

3.3 STI details

A detailed description of the STI plan operation is provided in the table below.

Parameter	Details
Award basis	The annual performance cycle is 1 July to 30 June. Individual balanced scorecards are agreed comprising both shared Group objectives as well as targeted divisional objectives. Objectives are set across financial, customer and people categories. The CEO's FY2019 scorecard detail and Other Executive KMP summary scorecard outcomes are shown in section 4.2.
Opportunity amount	The STI opportunity level varies according to the executive's role, increasing with role size, accountability and the capacity to influence business outcomes. They are set with reference to market benchmarks (see section 3.2). The FY2019 opportunity levels at minimum, target and at maximum (which operates as a cap) are set out below.

	STI opportunity (% FR)		
Executive KMP	Minimum	Target	Maximum
CEO	0	100	167
CFO	0	100	167
Other Executive KMP	0	75	125

Parameter	Details
Award calculation	**$ FR (at 30 June)** × **STI target opportunity (% FR)** × **Balanced scorecard outcome (% target)** = **STI award ($)** ↑ Discretion including behaviour assessment (see below)
Scorecard operation	Target represents the expectation for achieving robust annual plans. Threshold performance is that which results in satisfactory outcomes, usually representing year-on-year improvement and contribution towards delivery of annual plans but failing to meet the target level. Failure to reach a threshold measure is not rewarded. Stretch targets are those that would deliver exceptional outcomes well above expectations. The spread of results below or above the target will result in different remuneration outcomes for ELT members, notwithstanding that a material element of remuneration metrics are shared. The incentive and corresponding reward for out-performance is capped at 167% of the target level. This represents the maximum result (for individual objectives and for the total scorecard). Achieving threshold measures results in a reward of 33% of the target level, with pro-rata between these points. 
Assessment	Achievement and performance against each executive's scorecard is assessed annually as part of the Company's broader performance review process. The RPC also considers how remuneration outcomes have been achieved. This includes an assessment of factors such as conduct, regulatory compliance, and other non-financial risks. A behaviour assessment (based on BARS methodology, see section 2.2) was introduced in FY2019 to ensure that executives met the requirements of the new Origin values and behavioural requirements. In addition to Board discretion, this allows scorecard outcomes to be adjusted downward to reflect the impact of behaviours that are not aligned to Origin's values. In extraordinary cases of exceptional demonstration of model behaviours formulaic outcomes may be varied upwards, within the maximum prescribed levels. A failure to meet behavioural or conduct requirements during or after the performance period may result in more serious sanctions (see section 5.5).
Delivery	The STI award is delivered half in cash, and half in equity that is deferred for two years. The cash component is generally paid in September following the end of the financial year in which it was earned. The equity component (deferred STI) is awarded in the form of RS which are subject to a two-year holding lock. RSs are granted to executives for no cost as they represent part of the recipient's remuneration. Prior to FY2018 deferred STI was awarded in the form of Deferred Share Rights (DSRs), this was changed in FY2018 at the time practice was changed to source shares for equity awards on market.
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 the deferred component is forfeited if such a cessation occurs during the restriction period.
RS allocation	**Deferred STI amount ($)** (50% of STI Award) ÷ **Face value share price ($)** (30 day VWAP to 30 June, no discount) = **Number of RSs** (rounded to nearest whole)

Parameter	Details
Equity grants	Except for the CEO, equity grants are made as soon as practicable after Board approval, which is generally at the end of August following the end of the financial year. For the CEO, the Board's recommendation for the deferred STI award is submitted for approval at the AGM following the end of the financial year, and the equity grant is made as soon as practicable after shareholder approval has been obtained. Shareholder approval for the CEO is not required where RSs are to be purchased on market. However, in the interests of good governance and to preserve flexibility to issue shares where it may be appropriate to do so, the Board's practice is to seek shareholder approval.
Vesting release and exercise	RSs are released (and DSRs are vested) when the service conditions are met (or else as described under Employment cessation below). Exercise of DSRs is automatic on vesting and there is no exercise price.
Dividends	RSs carry dividend entitlements and voting rights. DSRs do not.
Employment cessation	No STI award is made where the service conditions have not been met in full, except where the Board decides otherwise, which it generally does in "good leaver" circumstances. Those are typically in cases of death, disability, redundancy, and genuine retirement. The requirement for deferral is waived in such circumstances. Previously awarded but unvested deferred awards vest at cessation of employment in good leaver circumstances, unless the Board determines otherwise.
Sourcing	The Board's preferred approach is to purchase RSs on market (unless circumstances arise where the Board determines otherwise). Otherwise, the Board may issue equity or make the award in alternative forms (including cash or deferred cash) where appropriate to do so.
Governance and MSR	Trading in vested or released shares is subject to minimum shareholding requirements (section 2.3) and all incentive awards are subject to the governance provisions in section 5.5.

3.4 LTI details

A detailed description of the LTI plan operation is provided in the tables below.

Parameter	Details
Award basis	LTI is an award of conditional equity that may have future value, subject to the company meeting or exceeding performance conditions, and subject also to the executive meeting service and personal conduct and performance requirements. Awards are considered annually.
Opportunity amount, and minimum and maximum value	The LTI 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). It represents the face value of an equity award (not discounted for hurdles or for dividends). An award may be granted at a face value anywhere between zero and the maximum in the table below (the Award Face Value), but in the absence of special reasons is normally granted at the standard role-based level (i.e. the standard is the maximum).

	LTI opportunity (% FR)	
Executive KMP	Minimum	Maximum
CEO	0	180
CFO and Other Executive KMP	0	120

The **maximum value** of the LTI is the maximum face value from the table above, assuming 100% of the award vests. This represents a "present day value" because it is not possible to predict the ultimate value without assuming a future share price.

The actual future value of the award will depend on the proportion that vests (which depends on the company's performance relative to the performance conditions) and the future share price.

The **minimum value** of the award is zero, which will be the case where PSRs are not granted, or where service conditions are not met, or where performance conditions are not met and there is no vesting.

The **expected value** (also referred to as the **target value**) is the risked value. For market-based hurdles this is the expected value of the vesting outcome obtained through a Monte Carlo simulation applied to a Black-Scholes option pricing model. For non-market hurdles, the vesting expectation is determined from reasonable operating forecasts and estimates of the degree of difficulty in achieving the hurdle. Origin uses both a market and non-market hurdle and has previously determined the risk factor as approximately 50% for both. Therefore a face value LTI allocation of 180% FR to the CEO has an expected (risked) value of 90% FR (see section 3.2).

Parameter	Details
Behaviour Assessment	The behaviour assessment referred to in section 3.3 may be taken into account by the RPC when recommending LTI awards, or when considering the application of the governance provisions to awards made (section 5.5).
Delivery	Performance Share Rights (PSRs). A PSR is a right to a fully paid ordinary share in the company, subject to the fulfilment of performance and service conditions. The PSRs are granted at no cost because they are awarded as remuneration.

Parameter	Details
PSR allocation	**$ FR (at 30 June)** × **Award face value (%FR)** ÷ **Face value share price ($)** (30 day VWAP to 30 June, no discount) = **Number of PSRs** (rounded to nearest whole)
Performance period and deferral length	The deferral period is a total of four years, made up of a three-year performance period (three financial years) followed by a holding lock of one year.
Service conditions	Unless the Board determines otherwise, unvested LTI awards are forfeited if the executive resigns or is dismissed for cause prior to the end of the relevant vesting period.
Performance conditions	Two performance conditions have been chosen to provide a balance between internal and external metrics. The two tranches are tested separately and vest separately. These are described in the graphic on the following page, together with commentary on the nature of the metrics, why they have been chosen, how they operate, and how each tranche vests. The same tranches and performance conditions (and therefore vesting outcomes) apply to all LTI participants.
Grant	Except for the CEO, equity grants are made as soon as practicable after Board approval, which is generally at the end of August following the end of the financial year. The CEO's LTI equity award is submitted for approval at the Annual General Meeting, and the equity grant is made as soon as practicable after shareholder approval has been obtained. Shareholder approval for CEO LTI equity awards is not required where vested shares are to be purchased on market. However, in the interests of good governance and to preserve flexibility to issue shares where it may be appropriate to do so, the Board's practice is to always seek shareholder approval.
Vesting release and exercise	PSRs vest according to the level at which each of the performance conditions have been met. Exercise of PSRs is automatic on vesting and there is no exercise price. Shares allocated after vesting are subject to a holding lock for one year and may not be traded until released from the holding lock. In exceptional circumstances (for example, an LTI recipient residing in an international jurisdiction, or where it is inappropriate to provide shares) the Board may determine to cash settle an award.
Dividends	PSRs carry no dividend entitlements or voting rights. Vested shares, while under holding lock and following the lifting of restrictions, carry dividend entitlements and voting rights.
Employment cessation	Unvested LTI awards held at cessation of employment will lapse on the date of cessation, unless the Board determines otherwise. Typically the Board will exercise such discretion only in limited "good leaver" circumstances, those which arise in consequence of death, disability, redundancy, genuine retirement or other exceptional circumstances as approved by the Board. In good leaver circumstances, unvested LTI awards may be held "on foot" subject to their original performance conditions and other terms and conditions being met (except for the waived service condition) or dealt with in an appropriate manner as determined by the Board.
Sourcing	The Board's preferred approach is to satisfy vesting by purchasing shares on market (unless circumstances arise where the Board determines otherwise). Otherwise, the Board may issue equity or make the award in alternative forms (including cash or deferred cash) where appropriate to do so.
Governance and MSR	Trading in released shares is subject to minimum shareholding requirements (section 2.3), and all incentive awards (whether paid, vested, unvested, restricted or released) are subject to the governance provisions in section 5.5.

LTI tranches and performance conditions

Number of PSRs to be awarded

50%[1] → **Internal hurdle** — **Return on capital employed (ROCE) tranche**

- **50%** → **Energy Markets (EM) hurdle**
- **50%** → **Integrated Gas (IG) hurdle**

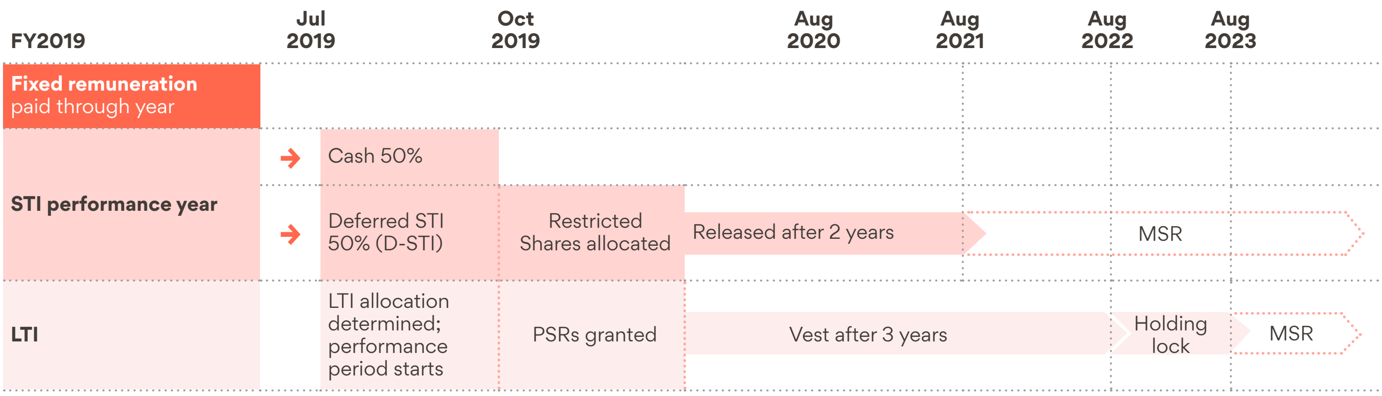
50%[1] → **External hurdle** — **Relative total shareholder return (RTSR) tranche**

	Internal hurdle – Return on capital employed (ROCE) tranche	External hurdle – Relative total shareholder return (RTSR) tranche
Rationale	ROCE is a profitability ratio that measures the efficiency of profit generation from capital employed. It predicts superior shareholder returns over the long term and reflects the importance of prudent capital allocation to generate sufficient returns.	TSR measures the growth in capital of a purchased share assuming reinvestment of dividends. Relative TSR measures a company's TSR performance relative to a reference group. It is an objective assessment of shareholder value, albeit with limitations reflecting the relative risk and expected return of each company compared to the reference group. It aligns executive reward to shareholder returns and does not reward general market uplifts. Vesting occurs only when Origin outperforms the market.
Definition	The ROCE tranche is split into two equal parts, one for the EM business and the other for the IG business. Separate ROCE targets are set for each, recognising their differing capital characteristics, risk and growth profiles. The average ROCE over three years must equal or exceed the average of three annual targets which are reflective of delivering WACC for each business. The starting point for the ROCE calculation is statutory EBIT divided by average capital employed for the relevant business. Statutory EBIT is adjusted for fair value and foreign exchange movements in financial instruments which are highly volatile and outside the control of management. Other adjustments to the ROCE calculation may be made in limited circumstances where the Board considers it to be appropriate. For example, it may be appropriate to adjust EBIT when it is adversely impacted by short-term factors associated with value creating initiatives (for example, acquisitions).	The reference group is the S&P/ASX 50 (as constituted at the start of the performance period). This represents the most meaningful group with which Origin competes for shareholder investment and executive talent. There is an insufficient number of operationally similar competitors to provide a useful 'selected' comparator group. Share prices are determined from three-month volume weighted average prices (VWAPs) ended on the start and end (respectively) of the performance period.
Vesting	Testing and vesting is independent for the two parts. In each case, half of the relevant PSRs will vest if the target is met, and all of the relevant PSRs will vest if the target is exceeded by two percentage points or more. Straight-line pro-rata vesting applies between these two points. Full vesting occurs only when both targets are exceeded by two percentage points or more.	Vesting occurs only if Origin's TSR over the performance period ranks it higher than the 50th percentile (P50) of the reference group of companies. Half of the PSRs vest on satisfying that condition, and all of the PSRs vest if Origin's ranks at or above the 75th percentile (P75). Straight-line pro-rata vesting applies between these two points.

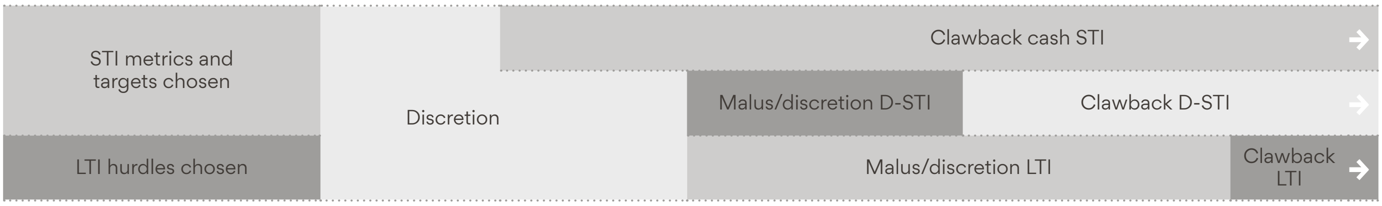
1 Where the number of PSRs to be allocated is an uneven number, the number allocated to the ROCE tranche is rounded to the nearest even number, and the balance of the PSRs is allocated to the RTSR tranche.

3.5 Remuneration cycle timelines

The FY2019 remuneration cycle and timelines are summarised graphically in the chart below. The cycle runs across five years from the beginning of the STI performance year in July 2018 through to August 2023 when the holding lock on vested LTI (if any) is lifted. MSR and clawback provisions continue beyond this date.



Governance map (see section 5)



The governance map illustrates the periods in which the Board is able to cancel, adjust or recover VR awards as detailed in section 5. These periods span the full cycle.

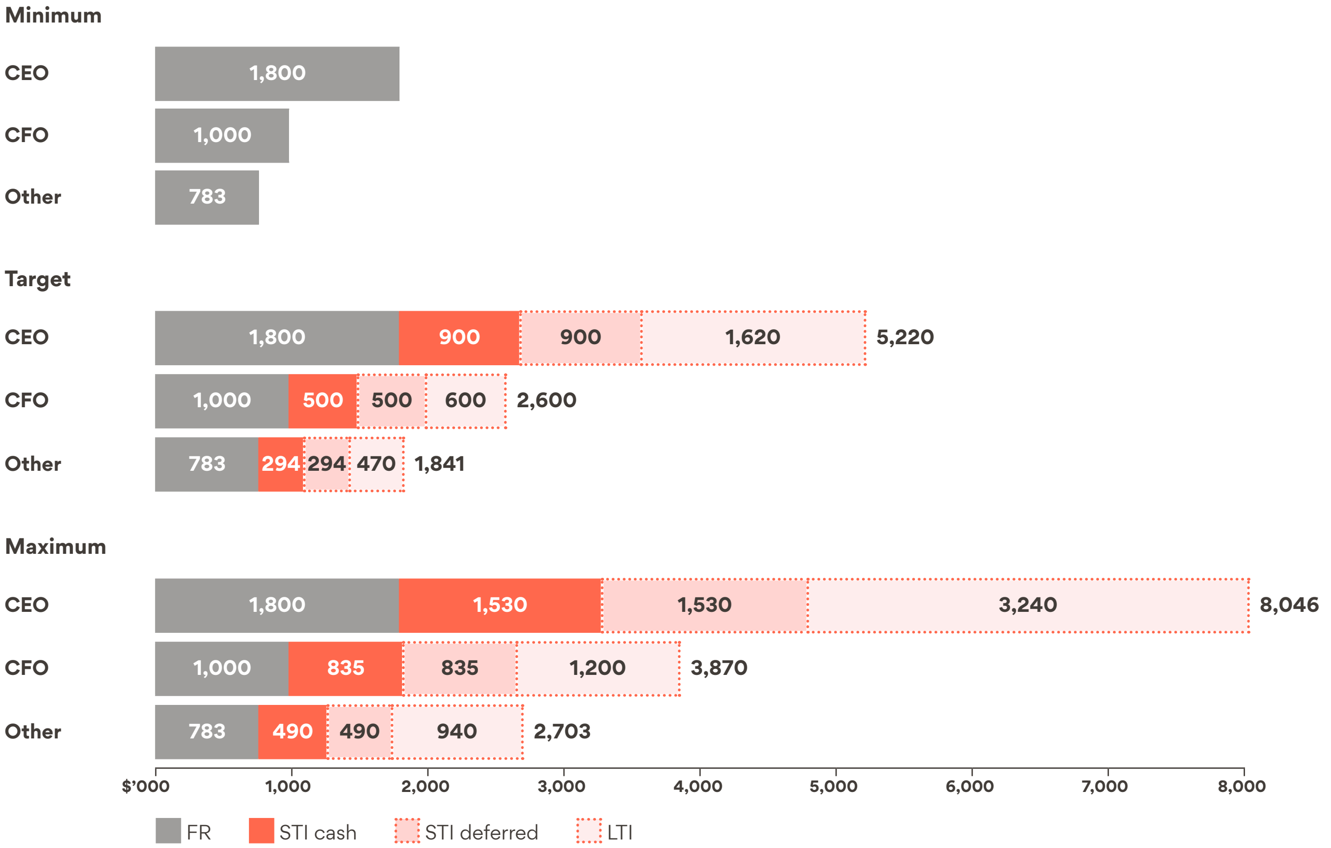
3.6 Remuneration range and mix

FR and STI-LTI opportunity levels at 30 June 2019 are summarised in the table below, together with the possible value range of those arrangements (based on the definitions in section 3.2).

Executive KMP	FR ($000)	VR opportunity (% FR) STI			LTI			TR ($000)		
		Minimum	Target	Maximum	Minimum	Target[1]	Maximum[1]	Minimum	Target	Maximum
CEO	1,800	0	100	167	0	90	180	1,800	**5,220**	8,046
CFO	1,000	0	100	167	0	60	120	1,000	**2,600**	3,870
Other (average)	783	0	75	125	0	60	120	783	**1,841**	2,703

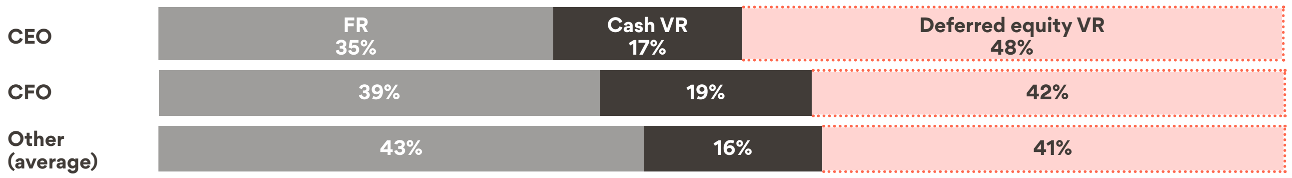
1 See sections 3.2 and 3.4 for derivation of LTI values.

Half of the STI award is in cash, and half is awarded as deferred equity. The remuneration ranges for Executive KMP, broken into the component elements, are shown schematically in the chart below.



The remuneration mix expressed in percentages of TR at target (TRT), and broken down into the elements of STI cash, STI deferred and LTI is summarised in the table and chart below.

Role		FR	STI cash	STI deferred	LTI	TRT	Variable	Deferred
CEO	$000	1,800	900	900	1,620	**5,220**	3,420	2,520
	proportion % TRT	35	17	17	31	**100**	65	48
CFO	$000	1,000	500	500	600	**2,600**	1,600	1,100
	proportion % TRT	39	19	19	23	**100**	61	42
Other (average)	$000	783	294	294	470	**1,841**	1,058	764
	proportion % TRT	43	16	16	25	**100**	57	41



Note: "Deferred equity" is the sum of Deferred STI and LTI allocations. Percentages may be rounded.

The proportion of the package that is variable (VR) increases (and the proportion that is FR correspondingly decreases) with higher roles. At target, the CEO's package is 35% fixed and 65% variable, and almost half of it is in deferred pay (deferred STI and LTI) that is conditional and subject to forfeiture subsequent to award.

3.7 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 of shares annually.

Under the $1,000 scheme, shares are restricted for three years (or until cessation of employment, whichever occurs first). Shares purchased under the sacrifice scheme are restricted for up to two years (or until cessation, whichever occurs first).

For every two shares purchased under the sacrifice scheme, participants are granted one matching share right at no cost which vests on the second trading day following the release of the Company's FY2020 full year results, 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, following approval by shareholders at the 2018 AGM, may participate in a new NED Share Acquisition Plan via salary sacrifice of Board fees. All NEDs currently meet their minimum shareholding requirements, and as yet no shares have been acquired under the new scheme.

The Committee regularly assesses the risk of the Company losing key people in areas of intense market activity, for example critical employees who manage core activities or have skills that are being actively solicited in the market. Where appropriate it may consider the selected use of deferred payment arrangements to reduce the risk of such critical loss. No deferred cash or retention equity was awarded to KMP during the current or the prior period.

From time to time it may be necessary to offer remuneration to offset amounts forfeited when a new executive leaves another employer in order to take up employment with Origin. In general, foregone equity awards would be replaced with Origin equity of the same fair value and with conditions and vesting periods that mirror those of the forfeit. No "sign-on" awards were granted to Executive KMP during the period.

4. Company performance and remuneration outcomes

This section summarises remuneration outcomes for FY2019 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 FY2015 to FY2019, grouped and compared with short-term and long-term remuneration outcomes.

Key performance metrics FY2015-FY2019[1]

	FY2015	FY2016	FY2017	FY2018	FY2019
Operational measures					
Underlying EPS cents per share[2]	54.0	23.2	31.3	58.2	58.4
Underlying EPS cents per share[2] (continuing activities[3])	47.7	18.1	22.8	47.7	58.4
Net cash from/(used in) operating and investing activities (NCOIA) ($m)	(2,081)	1,215	1,378	2,645	1,914
Energy Markets EBITDA (underlying) ($m)	1,260	1,330	1,492	1,811	1,574
Integrated Gas EBITDA (underlying, total operations) ($m)	498	386	1,104	1,521	1,892
Strategic Net Promoter Score (sNPS)[4]	(39)	(16)	(16)	(13)	(6)
Total Recordable Injury Frequency Rate (TRIFR)[5]	3.8	4.2	3.2	2.2	4.5
Female representation in senior roles[6] (%)	28	27	29	32	30
Origin engagement score[7]	52	53	58	61	61
STI award outcomes					
Executive KMP outcome (% of $ target)	**81.0**	**43.8**	**91.7**	**129.1**	**123.0**
Return measures					
Closing share price[2] at end June ($)	10.47	5.75	6.86	10.03	7.31
Weighted average share price[2] during year ($)	11.22	5.67	6.39	8.55	7.64
Dividends (cents per share)[8]	50.0	10.0	0.0	0.0	25.0
Annual TSR (%)	(15.0)	(42.0)	19.3	46.2	(26.1)
3-year TSR (CAGR % p.a.)[9]	2.8	(18.5)	(14.2)	(2.6)	12.0
Group Statutory EBIT ($m)	(280)	(411)	(1,958)	480	1,432
Group Statutory EBIT (continuing activities[3]) ($m)	(257)	47	(1,746)	473	1,432
LTI outcomes					
LTI vesting % in the year	**0**	**0**	**0**	**0**	**0**

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 profit from FY2019; or for the reclassification of futures collateral balances to operating cashflows (previously in financing cash flows in prior periods). For comparability purposes only, for FY2018 a restatement for these factors is provided in the Consolidated Financial Statements at note A1 Segments and the Statement of cash flows, for each item respectively.

2 EPS and share price have been restated for the bonus element of the rights issue completed in October 2015. The opening share price at the commencement of FY2015 was $12.79.

3 Excludes Contact Energy (FY2015–FY2016) and Lattice Energy (FY2016–FY2018).

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

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

6 Senior roles refers to all those people in specific job grades (standard Korn Ferry Hay Grades), currently corresponding to a TRT of approximately $180,000 pa.

7 Employee engagement is measured as a score through an annual Company-wide survey conducted independently, based on AON-Hewitt methodology.

8 Dividends represent the interim and final dividends determined for each FY. This includes the final dividend for FY2019 determined on 22 August 2019 to be paid on 27 September 2019. The amounts paid within each FY are 50.0c, 35.0c, 0.0c, 0.0c and 10.0c respectively.

9 For TSR calculation purposes, share prices at 30 June are based on a three-month VWAP, reflecting the LTI methodology for calculating TSRs for Origin and the comparator group companies.

The remuneration metric outcomes for FY2019 reflect strong financial performance, on target customer outcomes and below target people outcomes.

The financial metrics reflected outperformance against targets, favourable commodity prices, significant progress in APLNG operating efficiency, improvements in working capital, debt reduction, and disciplined capital management. The Energy Markets' results were above target reflecting improved results from the gas business driven by the inherent flexibility of its long-term supply and downstream strategy, and the impacts of the robust response to increasingly challenging retail market conditions. During the year, the two main credit rating agencies lifted their ratings for the Company in response to these improvements.

The customer metrics reflected a small decline in market share, above target NPS performance and close to target customer value.

People results were below target. Engagement was flat following a year of significant restructuring. The proportion of females in senior roles declined slightly, and the opportunity for improvement was limited due to low hiring rates during a year of consolidation. The decline in the TRIFR measure countered the improvements in recent years although progress was recorded in other important safety metrics such as process safety and incident levels.

The table above shows that overall awarded STI outcomes for Executive KMP were 123.0% of target on a dollar-weighted basis. Awards have varied from 43.8% to 129.1% of target over the last five years, underlining the variability of STI outcomes with company performance.

The share price declined 11% over the year measured on a weighted average basis, and 27% on a year-end basis. This followed increases of 34% and 46% (respectively) for the prior year. No LTI vested during the year. Options and PSRs awarded in October 2014 were forfeited, reflecting the share price underperformance of recent years. This highlights the inherent shareholder alignment created by the various equity components of our framework, which we believe responded appropriately. The creation of sustainable shareholder value remains of utmost focus. Improving annual business performance under the current management team has laid the foundations that are expected in due course to be reflected in stronger share price performance and in the LTI vesting pattern.

The specific performance metrics for the CEO scorecard, together with individual results for FY2019 STI are provided in the table below.

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, and discretion may be required to vary targets or outcomes to reflect the intended purpose and/or the 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.

4.2 STI awards and scorecard details for FY2019

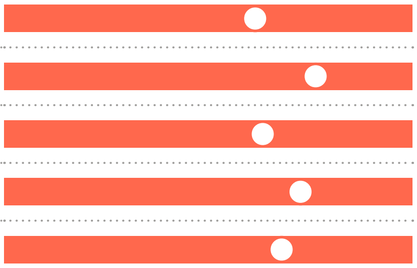
STI awards are calculated on the basis of a balanced scorecard using the concepts of setting requirements at threshold, target and stretch achievement levels. The CEO's scorecard was weighted 60% to financial measures and 20% each to Customer and People measures, with FY2019 results as set out below.

CEO FY2019 STI scorecard

Weight	Measure, rationale and FY2019 performance	Scorecard result				Outcome (% target)
		Threshold	Target	Stretch		
12.5%	**EPS (underlying)** cents per share Measure of Origin's earnings and profitability Strong operational results and favourable commodity prices and FX	40.9	46.3	51.7	58.4	167.0
12.5%	**Net cash from operating and investing activities** $m Measure of effective cash flow generation Strong earnings combined with disciplined capital investment.	1241	1358	1476	1914	167.0
8.75%	**FY2019 distribution breakeven** US$/boe Measure of global competitiveness which reflects the oil price above which APLNG generates cash distributions. Strong performance reflects a comprehensive efficiency program	42.5	40.9	37.5	36.2	167.0
4.38%	**Operating cost at FY2019 end (APLNG)** $/GJ Measure of global competitiveness. Around target performance reflects material major improvements in operational efficiency	1.15	1.00	0.85	1.004	98.2
4.37%	**Well costs at FY2019 end (APLNG)** ($m/well) Measure of global competitiveness. At target performance reflects reduction in finding and development costs	1.4	1.2	1.0	1.18	106.7
17.5%	**EM EBITDA** ($m) Measure of operating performance of the Energy Markets business. Above target performance notwithstanding impact of regulatory changes and competitive conditions. Reflects tight cost management and competitive offers for customers	1435	1512	1589	1574	153.9
60%	**Financial**					**153.8**
10%	**Strategic Net Promoter Score** Measure of customer experience and advocacy. Result represents a 7-point improvement from prior year	-13	-10	-4	-6	145.0
5%	**Customer value (retail gross margin including solar)** Measure of value created by product offering. Performance below target, impacted by regulatory changes and competitive conditions (excludes OC acquisition and new products)	775	817	859	801.6	75.4
5%	**Customer market share (retail customer movement)** Reflects a disciplined approach to market conditions, customer value management and improved customer experience	-25k	-12k	+ve	-39.6	0.0
20%	**Customer**					**91.5**
20%	Includes Origin engagement score, female representation in senior roles, Origin total recordable injury frequency rate, behavioural alignment and culture Targeted improvements in engagement were not achieved reflecting organisational change and uncertainty. Increasing the representation of women in senior roles was not achieved during the year. TRIFR results declined disappointingly after several years of improvement. New Purpose, Values and Behaviours metric embedded and tested at meeting expectations	consolidated metrics				16.5
20%	**People**					**16.5**
100%	**TOTAL**					**113.9**

The remuneration awards were approved after consideration of a range of other non-formulaic inputs, including advice from the Risk and Audit Committees, and reflection on the overall appropriateness of the STI framework outcomes. Results from an inaugural management behaviours review were also considered (section 2.2).

The majority of the CEO's scorecard objectives are shared across Other Executive KMP however, their weightings will differ according to the incorporation of specific divisional metrics. This will lead to a degree of variability of outcomes across Executive KMP. For FY2019 the overall scorecard outcomes ranged between 113.9% and 136.1% of target as summarised below.



Executive KMP	Scorecard result			Outcome (% target)
	Threshold 33	**Target** 100	**Stretch** 167	
F Calabria				**113.9**
L Tremaine				**136.1**
J Briskin				**118.8**
G Jarvis				**131.2**
M Schubert				**124.7**

The average scorecard outcome for Executive KMP was 124.9% of target, and the payout outcome (dollar-weighted) was 123.0% of target.

4.3 FR paid for FY2019

The table below summarises FR changes during the year and the actual FR paid for FY2019. The changes implemented during the year reflect our policy to shift recent appointees closer to P50 over a period of two to three years, with most of the management team reaching that tenure level over the last year.

	FR ($000)			
	30 June 2018	**30 June 2019**	**Received in FY2019**[1]	**Changes**
F Calabria	1,700	1,800	1,800	As disclosed in the FY2018 report, after two years in the role the CEO's package was realigned to market benchmarks effective 1 July 2018. The 5.9% uplift in FR was offset by a reduction in STI target opportunity also from 1 July 2018.
L Tremaine	1,000	1,000	1,000	No change, aligned with external benchmarks
J Briskin	675	750	750	Realigned to benchmarks after two years in the role.
G Jarvis	724	800	788	Realigned to benchmarks after two years in the role.
M Schubert	724	800	788	Realigned to benchmarks after two years in the role.

1 FR received represents payments received over the year taking into account salary changes occurring during the year. It includes salary sacrifice amounts.

FR changes for Executive KMP for FY2020 are expected to average less than 2% in line with general executive market movements, compared with general uplifts of around 2.5% for the broader organisation.

4.4 VR awarded for FY2019

The table below summarises the STI and LTI awards for FY2019 performance by Executive KMP. The STI award represents the total award amount, half of which will be paid in cash (including superannuation) during September 2019 and the other half awarded in the form of Restricted Shares (restricted for 2 years) shortly thereafter. The CEO's Restricted Share award and LTI face value award will be put to shareholders for approval in October 2019.

	STI target ($000)[1]	STI Scorecard (% target)[2]	STI award ($000)	STI awarded % max[1]	STI forfeited % max[1]	LTI award % FR[1]	LTI face value ($000)[1]	LTI expected value ($000)[3]
F Calabria	1,800	113.9	**2,050**	68.2	31.8	180	3,240	**1,620**
L Tremaine	1,000	136.1	**1,361**	81.5	18.5	120	1,200	**600**
J Briskin	562.5	118.8	**668**	71.3	28.7	120	900	**450**
G Jarvis	600	131.2	**787**	78.7	21.3	120	960	**480**
M Schubert	600	124.7	**748**	74.8	25.2	120	960	**480**

1 The derivation of STI target values, STI maximum values, and standard LTI face value allocations are covered in section 3.6.
2 Scorecard results are as tabled in section 4.2.
3 The derivation of LTI expected (risked) values is covered in section 3.2, and is one-half of the (unrisked) face value.

The total STI payment outcome for Executive KMP ($5,614,000) as a percentage of their total STI target amounts ($4,562,500) represented 123.0% of target.

4.5 TR awarded for FY2019

The Total Remuneration awarded for FY2019 comprises the FR tabulated in section 4.3 and the STI and LTI awards as described in section 4.4, as summarised in the table below.

		VR awarded			
FY2019 ($000)	**FR received[1]**	**STI cash[2]**	**STI deferred[3]**	**LTI expected value[4]**	**TR**
F Calabria	1,800	1,025	1,025	1,620	**5,470**
L Tremaine	1,000	681	681	600	**2,962**
J Briskin	750	334	334	450	**1,868**
G Jarvis	788	394	394	480	**2,056**
M Schubert	788	374	374	480	**2,016**

1 FR received is the amount shown in section 4.3.
2 STI cash represents half of the "STI award" from section 4.4. The STI cash is allocated to the earning year even though it is physically paid in September 2019 after the end of FY2019.
3 STI deferred is the balance of the "STI award" from section 4.4, and represents the undiscounted face value that will be allocated as Restricted Shares in September 2019 (or, for the CEO, following shareholder approval to be sought in October 2019).
4 The LTI expected value is from the table in section 4.4 and will be allocated (on the basis of undiscounted face value) as PSRs in September 2019 (or, for the CEO, following shareholder approval to be sought in October 2019).

4.6 Pay received in FY2019

In line with general market practice a (non-AASB) presentation of actual pay received in FY2019 is provided below, as a summary of real or "take home" pay. The (AASB) statutory remuneration presentation is provided in table 7-1.

Pay received (real "take home" pay) includes FR plus the cash component of the FY2019 STI award, plus equity that has vested from equity grants made in prior periods, whether from Deferred STI or from LTI vesting.

The value of vested Deferred STI depends on the company's share price at the time of vesting (or on the lifting of restrictions on restricted shares). This ensures that the original award is exposed to variability in Origin's share price throughout the deferral period, aligning with shareholder experience.

The table shows that no value was obtained in FY2019 from prior year LTI allocations. Amounts that were previously reported as statutory remuneration from those allocations and were forfeited during the year are shown in the equity forfeited column.

		Variable pay received				
Executive KMP	**FR received[1]**	**STI cash[1]**	**DSRs vested[2]**	**LTI vested[3]**	**Actual pay received[4]**	**Equity forfeited[5]**
F Calabria	1,800	1,025	332	0	**3,157**	(660)
L Tremaine	1,000	681	1,433	0	**3,114**	0
J Briskin	750	334	100	0	**1,184**	(65)
G Jarvis	788	394	188	0	**1,370**	(124)
M Schubert	788	374	238	0	**1,400**	0

1 FR received and STI cash are as shown in section 4.5.

2 DSRs vested were from Deferred STI grants awarded in 2015, 2016 and for L Tremaine from a sign-on grant in 2017. The vested value is calculated as the number of vested securities multiplied by the closing price of Origin ordinary shares on the day of vesting (or the date of release of restriction where applicable).

3 LTI vested represents the value of LTI awards from prior years that vested wholly or partially during the year. Options and PSRs awarded in October 2014 were the only LTI tests during FY2019, and these were forfeited with nil vesting. Additional information about the nature of these awards and applicable vesting criteria can be found in the 2014 Annual Report.

4 Actual pay received is the sum of FR received, STI cash, DSRs vested and LTI vested.

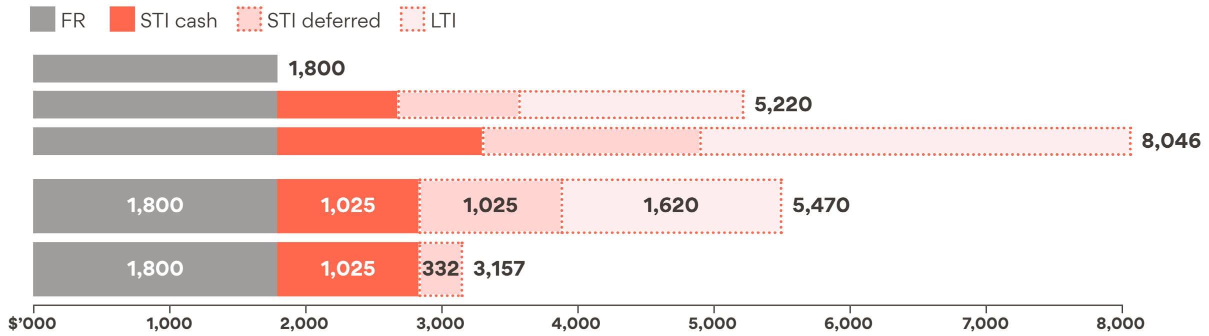
5 LTI that was awarded for FY2014, granted in October 2014, was tested and 100% forfeited in October 2018. The forfeited value represents the original LTI allocation value that was attributed to remuneration (for the CEO, as reported in Table 14 of the 2014 Remuneration Report).

4.7 Pay awarded and pay received in FY2019 relative to remuneration range

To summarise the preceding sections and to provide an overall context, the charts below compare the remuneration range (section 3.6) with the pay awarded for FY2019 (section 4.5) and the actual pay received for FY2019 (from section 4.6).

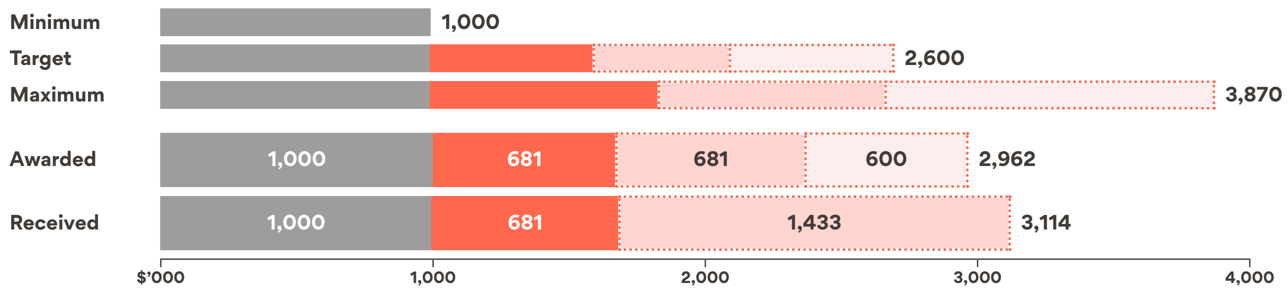
CEO

The chart below illustrates that for the CEO the pay awarded was slightly above target TR, and the pay received was between the minimum and target TR.



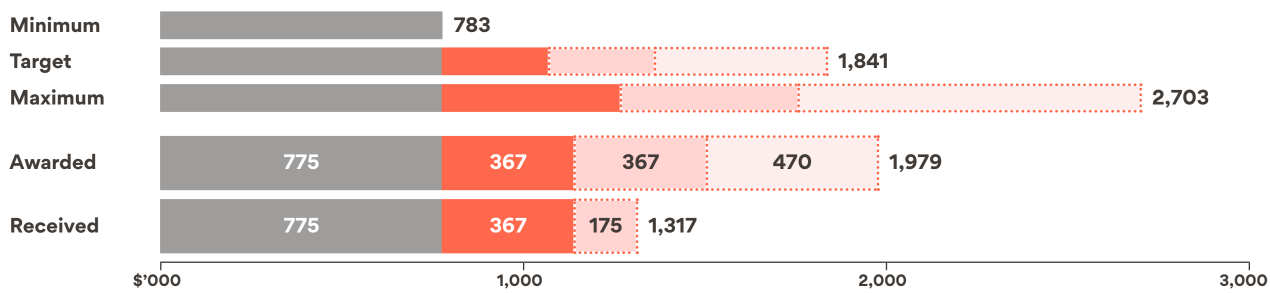
CFO

The chart below compares the CFO's FY2019 pay awarded and pay received, both above target TR. The pay received was inclusive of the vesting of sign-on equity that substituted equity that was forfeited from a previous employer in consequence of accepting employment with Origin.



Other Executive KMP (average)

The chart below represents an average of the Other Executive KMP, showing that the pay awarded in FY2019 was slightly above target, and the pay received was between minimum and target.



5. Governance

5.1 Role of the Remuneration and People Committee (RPC)

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 has four members (including its Chairman) who are all 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 will not be present at times when their own remuneration is under discussion.

The role of the RPC and its operational relationships with the Board, management, stakeholders and external advisors is depicted in the diagram below.

Board

The Board approves

- executive remuneration policy
- remuneration for the CEO and ELT
- STI and LTI targets and hurdles
- NED fees
- CEO and ELT succession and appointments

Remuneration and People Committee (RPC)

The RPC makes recommendations to the Board on the matters subject to its approval (above). The RPC approves remuneration scales, movements and equity allocations for employees other than the CEO and ELT.

In addition, the RPC stewards and advises the Board and management on remuneration and people matters, including:

- future leader talent pipelines and development processes
- people strategies and culture development
- corporate governance and risk matters relating to people and remuneration (including conduct, diversity and gender pay equity)
- effectiveness of remuneration policy and implementation

Information exchange with other board committees notably Audit and Risk Committees to ensure that all relevant matters are considered prior to RPC making remuneration recommendations and decisions

Consultation with external stakeholders and shareholders

Regular dialogue with shareholders and proxy advisors

Independent remuneration advisors

The RPC appoints an external independent advisor to assist it with market and governance issues, benchmarking, best practice observations and general advice

Management

Management provides data and information relevant for RPC consideration (practice insights, legal, tax, accounting and actuarial advice) and makes recommendations to the RPC concerning remuneration and people matters.

5.2 Remuneration advisors

The RPC engages external advisors from time to time to conduct benchmarking, to advise on regulatory and market developments, and to 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 Act. The protocols are to ensure independence and the avoidance of 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 communication with company management except as authorised by the Chairman and 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 FY2019. EY was appointed its advisor during FY2019, however EY 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 RPC activities in FY2019

The RPC met formally six times during the reporting period. In addition, the RPC Chairman and Origin Chairman consulted with external stakeholders and reported back to the RPC. The activities are summarised below.

RPC activities FY2019

Remuneration framework

- Reviewed the operation of the remuneration framework relative to its objectives
- Reviewed FY2019 performance metrics and progress through the year, and considered changes for FY2020
- Reviewed benchmarks and made adjustments to variable pay arrangements at lower organisational levels
- Continued to monitor market trends and developments
- Oversaw review and simplification of incentive plan rules and documentation and recommended for Board approval

Remuneration recommendations/decisions

- Reviewed performance and behavioural alignment for CEO and ELT members
- Reviewed market data and made recommendations for CEO and ELT remuneration and incentive awards
- Reviewed market data and workload requirements and recommended minor changes to committee fee levels
- Approved annual FR adjustments and cash STI awards below ELT based on review of benchmark data, performance outcomes and management recommendations; and recommended equity awards below ELT for deferred STI and LTI for approval by Board

Other remuneration matters

- Reviewed gender pay gap data and initiatives to ensure equal pay for equal work
- Oversaw new trust arrangements for implementing new policy to acquire shares on market to satisfy STI equity awards, vesting LTI, and matching share plan
- Reviewed operation of universal share plans and authorised FY2020 continuation of arrangements
- Sought external advice on improved governance for non-financial risk
- Met with shareholders and proxy advisors

Other People matters

- Raised committee awareness and deepened its involvement with management on general people matters, particularly surrounding pipeline talent, cultural issues and leadership development, coaching and mentoring
- Reviewed and provided input to management on behavioural assessments and diversity initiatives

5.4 Conduct, risk management and accountability framework

The remuneration framework, while substantially defined by specific metrics that relate to the Company's strategy and are measured objectively, also requires the exercise of judgement, which may result in the utilisation of discretion to adjust formulaic outcomes.

In addition, the framework has a number of features that serve to manage risk, and to encourage good conduct while preserving the opportunity for reward even in the presence of external headwinds and adverse business conditions. These features and their relevance to the management of risk and conduct are summarised in the table below.

	Framework feature	Link to conduct and risk management
1	Performance metrics are aligned with the long-term financial plan and the Company's strategic priorities	Focuses effort on the most critical aspects of Origin's operations and strategy
2	Performance metrics are balanced between controllable and non-controllable items	Ensures that reward for strong performance is not limited to a favourable external environment
3	Performance metrics are largely shared and common, supplemented by relevant divisional measures as appropriate	Encourages the ELT to act as one team while also rewarding specific divisional results
4	Short and long-term measures are separated into the STI and LTI remuneration elements	Ensures a dual focus on annual deliverables and long-term decisions. STI metrics are consistent with longer-term strategy. Avoids outcomes where LTI vests in the absence of longer-term performance
5	The LTI element uses a combination of internal and external metrics	Aligns executives' interests with both long-term business performance and operational efficiency and with shareholder experience
6	Metrics results are reviewed by the RPC and substantiated independently and/or subject to other assurance processes including audits	Provides transparency and consistency
7	Prior to the determination of incentive awards a Behaviour Assessment is undertaken by RPC, which includes taking input from Risk and Audit Committee chairmen	Ensures that awards are determined in a holistic context that considers financial and non-financial risk Establishes an accountability framework for applying consistent remuneration consequence where behaviour and conduct requirements are not fully met, plus further sanctions for more serious matters
8	The substantial part of incentive awards is deferred and delivered in equity	Incentivises the taking of a long-term approach to decision making Discourages excessive risk-taking and/or short-term bias Delivery in equity ensures that the reward is "time-tested" (exposed to share price movements subsequent to grant) and provides alignment with shareholders
9	Hedging of unvested equity is prohibited	Avoids the limitation of the economic risk intended under equity award arrangements, and provides for alignment with shareholders
10	A minimum shareholding obligation (section 2.3) is imposed on executives (and NEDs), additional to disposal restrictions associated with deferral	Facilitates the building and maintaining of a meaningful equity stake in the Company and provides for alignment with shareholders
11	Overarching discretion, malus and clawback provisions are incorporated into plan rules	Prevents the award (or the retention) of inappropriate benefits (see section 5.5)

The Committee has increased its focus in the area of assessment of people behaviours in parallel with the Company's launch of restated new values and behaviours during the year.

During FY2019 a more structured approach was adopted with clearer remuneration consequences for any deficiency or inconsistency in meeting required behavioural standards, and greater clarification of consequences attaching to more serious breaches. This approach does not represent a change in standards, rather it added rigour and consistency in terms of application.

5.5 Overarching discretion, malus and clawback

The RPC is guided by a set of overarching principles to apply in the assessment of items or events that impact risk (including non-financial risk) or performance (both positive and negative) and to ensure a consistent approach to determining whether discretionary adjustments are warranted to achieve fairness to executives and to shareholders. More generally, the RPC and Board have wide discretionary tools to prevent the award (or retention) of inappropriate benefits.

The governance map shown in section 3.5 identifies periods throughout the remuneration cycle at which the Board has powers to set targets and to cancel or vary outcomes or awards.

In exercising discretion the Board may take into account any factor that it reasonably considers appropriate, including personal performance and/or conduct, the performance of a person's business unit or function or for which they have accountability, the performance of the company, or matters impacting the reputation of the company.

Fraud, dishonesty, gross misconduct, negligence, breach of duties and other serious matters will have consequences additional to the remuneration discretions referred to in this section.

Pre-grant/pre-payment discretion

The RPC reviews and approves STI performance metrics each year when they are chosen and when their corresponding targets are set. This is to ensure that the metrics and targets are appropriate to focus effort on the right priorities and business objectives. Similarly, the RPC considers LTI performance hurdles regularly and in particular when confirming the hurdles to apply to LTI equity grants. The Board can vary results up (but capped to the specified maximum) or down (including to zero) before advising or confirming payments and awards to participants.

Malus

Malus refers to 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.

The Board has, from time to time, applied malus. For example, it awarded zero STI and LTI allocations for some executives in both FY15 and FY16 to ensure that outcomes were aligned to the overall circumstances of the company, even though some of the relevant performance conditions had been met and preliminary award advice had been given.

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.

5.6 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.

5.7 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 (NED) fees

6.1 Remuneration policy and structure for NEDs

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

The aggregate cap for overall NED remuneration is $3,200,000 per annum, as approved by shareholders on 18 October 2017.

Board and committee fees take into account market rates for similar positions at relevant Australian organisations (those of comparable size and complexity) that fairly reflect the time commitments and responsibilities involved.

The Origin Chairman receives a single fee that is inclusive of 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. There has been no change to the Chairman or NED Base Fee since FY2013. Minor adjustments have been made for FY2020 to simplify and align committee fees as shown in the table below. These changes reflect the substantial increase in workload in the respective committee.

NED and committee fees ($'000)

Office	FY2019	FY2020	Changes for FY20-20
Board – Chairman (inclusive of committee fees)	677	677	
NED Base Fee (exclusive of committee fees)	196	196	
Audit – Chairman	57	57	
Audit – Member	29	29	
RPC – Chairman	47	47	
RPC – Member	21	23.5	Member fee moved to half Chair fee
Health, Safety and Environment – Chairman	42	47	Alignment to RPC
Health, Safety and Environment – Member	21	23.5	Alignment to RPC
Risk – Chairman	42	47	Alignment to RPC
Risk – Member	21	23.5	Alignment to RPC
Nomination – Chairman	nil	nil	
Nomination – Member	nil	nil	
Origin Foundation – Chairman	nil	nil	

6.2 Minimum shareholding requirement (MSR) for NEDs

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 requirement for the Chairman is 200% of the NED Base Fee, and for all other NEDs it is 100% of the NED Base Fee.

The MSR must be reached within three years of appointment, or, where the requirement has been increased, within two years of the increase. At the date of this Remuneration Report, all NEDs met the minimum requirement. Details on NED shareholdings are included in table 7-3.

A new Non-executive Director Share Plan (NEDSP) was approved by shareholders at the 2018 AGM. The NEDSP is a salary sacrifice plan, which 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. As at the date of the report, no share rights have been purchased and no shares allotted under this NEDSP. There are no participants remaining in Origin's legacy Non-executive Director Share Plan which was suspended in 2013.

7. Statutory tables and disclosures

Table 7-1 Executive KMP and NED statutory remuneration ($'000)

		Short term				Long term					Totals		
		PEB[1]					Share based						
		FR[1]						Deferred STI[4]					
		Base salary	Super-annuation	Non-monetary benefits[3]	Cash STI[2]	Leave accrual[6]	Matching Share Rights	RS	DSR	LTI[5]	Total accounting remuneration	At risk (%)	Share based (%)
Executive Director													
F Calabria	2019	1,710	21	39	1,025	86	–	601	303	812	4,597	60	37
	2018	1,646	24	33	1,046	43	–	–	697	612	4,101	57	32
Other Executive KMP													
J Briskin	2019	715	21	16	334	21	–	194	59	143	1,503	49	26
	2018	655	20	11	328	68	–	–	188	110	1,380	45	22
G Jarvis	2019	730	22	32	394	51	0.6	218	68	191	1,707	51	28
	2018	684	27	27	347	18	–	–	220	161	1,484	49	26
M Schubert	2019	752	21	12	374	13	–	208	58	179	1,617	51	28
	2018	704	20	10	330	9	–	–	223	121	1,417	48	24
L Tremaine[7]	2019	934	21	42	681	12	0.6	407	624	245	2,967	66	43
	2018	961	20	11	697	12	–	–	221	1,784	3,706	73	54
Former Executive KMP													
G Mallett[7]	2019	–	–	–	–	–	–	–	–	–	–	–	–
	2018	70	1	1	0	0	–	–	1	5	78	8	8
Executive Total[8]	**2019**	**4,841**	**106**	**141**	**2,808**	**183**	**1.2**	**1,628**	**1,112**	**1,570**	**12,390**	**57**	**35**
	2018	**4,720**	**112**	**93**	**2,748**	**150**	**–**	**–**	**1,550**	**2,793**	**12,166**	**58**	**36**
Non-Executive Directors													
J Akehurst	2019	233	21	0.2	–	–	–	–	–	–	254	–	–
	2018	239	20	0	–	–	–	–	–	–	259	–	–
M Brenner	2019	241	21	0.2	–	–	–	–	–	–	262	–	–
	2018	247	20	0	–	–	–	–	–	–	267	–	–
G Cairns	2019	642	21	16	–	–	–	–	–	–	679	–	–
	2018	657	20	13	–	–	–	–	–	–	690	–	–
T Engelhard	2019	220	21	0.2	–	–	–	–	–	–	241	–	–
	2018	221	20	0	–	–	–	–	–	–	241	–	–
G Lalicker[9]	2019	54	7	0.1	–	–	–	–	–	–	61	–	–
	2018	–	–	–	–	–	–	–	–	–	–	–	–
B Morgan	2019	268	21	0.2	–	–	–	–	–	–	289	–	–
	2018	275	20	0	–	–	–	–	–	–	295	–	–
S Perkins	2019	266	21	0.2	–	–	–	–	–	–	287	–	–
	2018	273	20	0	–	–	–	–	–	–	293	–	–
S Sargent	2019	212	21	0.2	–	–	–	–	–	–	233	–	–
	2018	218	20	0	–	–	–	–	–	–	238	–	–
Non-Executive Total	**2019**	**2,136**	**154**	**17**	**–**	**–**	**–**	**–**	**–**	**–**	**2,306**	**–**	**–**
	2018	**2,130**	**140**	**13**	**–**	**–**	**–**	**–**	**–**	**–**	**2,283**	**–**	**–**

1 FR comprises base remuneration and superannuation (post-employment benefit "PEB").
2 STI cash represents one half of the STI award. The STI cash is paid after the end of the financial year to which it relates but allocated to the earning year. The balance of the STI award is Deferred STI.
3 Non-monetary benefits include insurance premiums and fringe benefits such as car parking and expenses associated with travel.
4 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.
5 LTI includes all long-term incentives (i.e. those not awarded under 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 in the financial statements for details on share-based remuneration accounting.
6 Movement in long service leave provision over the reporting period.
7 For FY2018, pro-rata periods for KMP office are: G Mallett 1 July 2017 to 9 July 2017, and L Tremaine 10 July 2017 to 30 June 2018.
8 FY2018 totals represent the sums of rounded ($'000) line items that were previously disclosed in whole dollars. The totals here may vary slightly from totals in those disclosures.
9 For FY2019, pro-rata period for G Lalicker was 1 March 2019 to 30 June 2019.


origin

Key for Tables 7-2 to 7-4

DSR – Deferred Share Rights

PSR – Performance Share Rights (TSR and/or ROCE hurdles)

PSR (TSR) – Performance Share Rights with relative TSR performance hurdle

PSR (ROCE) – Performance Share Rights with ROCE hurdles

RS-STI – Restricted Shares held in trust under the Deferred STI arrangements

MR – Matching Rights under the Employee Share Purchase and Matching Rights plan (see section 3.7)

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

Rights to equity and restricted shares in the Company granted to Executive KMP during the reporting period are listed below. These were provided at no cost to the recipients.

	Type	Number granted	Grant date fair value[1]($)	Exercise price($)	Grant date	Vest date	Expiry date[2]
Executive Director							
F Calabria	PSR (TSR)	156,123	3.65	–	17-Oct-18	23-Aug-21	22-Aug-22
	PSR (ROCE)	156,122	7.71	–	17-Oct-18	23-Aug-21	22-Aug-22
	RS-STI	106,684	8.15	–	17-Oct-18	24-Aug-20	–
Other Executive KMP							
J Briskin	PSR (TSR)	30,995	3.14	–	10-Sep-18	23-Aug-21	22-Aug-22
	PSR (ROCE)	30,995	7.38	–	10-Sep-18	23-Aug-21	22-Aug-22
	RS-STI	33,435	8.33	–	14-Sep-18	24-Aug-20	–
G Jarvis	PSR (TSR)	33,245	3.14	–	10-Sep-18	23-Aug-21	22-Aug-22
	PSRs (ROCE)	33,245	7.38	–	10-Sep-18	23-Aug-21	22-Aug-22
	RS-STI	35,375	8.33	–	14-Sep-18	24-Aug-20	–
	MR	163	0.473	–	26-Sep-18	31-Oct-20	–
M Schubert	PSR (TSR)	33,245	3.14	–	10-Sep-18	23-Aug-21	22-Aug-22
	PSR (ROCE)	33,245	7.38	–	10-Sep-18	23-Aug-21	22-Aug-22
	RS-STI	33,717	8.33	–	14-Sep-18	24-Aug-20	–
L Tremaine	PSR (TSR)	61,225	3.14	–	10-Sep-18	23-Aug-21	22-Aug-22
	PSR (ROCE)	61,224	7.38	–	10-Sep-18	23-Aug-21	22-Aug-22
	RS-STI	72,500	8.33	–	14-Sep-18	24-Aug-20	–
	MR	163	0.473	–	26-Sep-18	31-Oct-20	–

1 For MR, fair value is per $1 contributed by the executive.
2 Rights may expire earlier, for example if they fail to vest on testing, they will lapse on the test date.

Table 7-3 Details of, and movements in, equity rights and ordinary shares of the company

This table covers holdings and movements for 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. Details of the terms and vesting and exercise conditions attaching to the rights are set out in table 7-4.

	Type	Held at start[1]	No. granted[2,11] acquired[3,9]	Value ($)	No. vested	No. exercised/ shares received on exercise of DSRs[4]	Value at exercise[5] ($)	No. forfeited[6]/ shares disposed[7]	Value forfeited[8] ($)	Held at end[1,9,10]	MSR[11]
Executive Director											
F Calabria	Options	1,430,210	–	–	0	0	0	227,065	495,000	1,203,145	Met
	PSRs	271,895	312,245	1,773,550	0	0	0	20,271	165,000	563,869	
	DSRs	216,214	–	–	40,212	40,212	332,434	0	0	176,002	
	RS-STI	0	106,684	869,475	0	0	0	0	0	106,684	
	Shares	191,905	0	–	–	40,212	–	0	–	232,117	
Other Executive KMP											
J Briskin	Options	86,910	–	–	0	0	0	0	0	86,910	Met
	PSRs	88,210	61,990	352,103	0	0	0	7,986	65,000	142,214	
	DSRs	34,888	–	–	11,548	11,548	99,775	0	0	23,340	
	RS-STI	0	33,435	278,514	0	0	0	0	0	33,435	
	Shares	29,051	123	–	–	11,548	–	0	–	40,722	
G Jarvis	Options	278,811	–	–	0	0	0	28,384	61,875	250,427	Met
	PSRs	83,790	66,490	377,663	0	0	0	7,602	61,875	142,678	
	DSRs	47,810	–	–	21,817	21,817	188,499	0	0	25,993	
	RS-STI	0	35,375	294,674	0	0	0	0	0	35,375	
	MRs	0	163	1,135	0	0	0	0	0	163	
	Shares	35,315	929	–	–	21,817	–	22,000	–	36,061	
M Schubert	Options	237,410	–	–	0	0	0	0	0	237,410	Met
	PSRs	72,136	66,490	377,663	0	0	0	0	0	138,626	
	DSRs	47,884	–	–	28,939	28,939	237,649	0	0	18,945	
	RS-STI	0	33,717	280,863	0	0	0	0	0	33,717	
	Shares	43,911	123	–	–	28,939	–	17,000	–	55,973	
L Tremaine	Options	81,441	–	–	0	0	0	0	0	81,441	Met
	PSRs	24,415	122,449	695,508	0	0	0	0	0	146,864	
	DSRs	335,875	–	–	165,860	165,860	1,433,030	0	0	170,015	
	RS-STI	0	72,500	603,925	0	0	0	0	0	72,500	
	MRs	0	163	1,135	0	0	0	0	0	163	
	Shares	0	449	–	–	165,860	–	–	–	166,309	
Non-executive Directors[12]											
J Akehurst	Shares	71,200	0	–	–	–	–	0	–	71,200	Met
M Brenner	Shares	22,117	6,250	–	–	–	–	0	–	28,367	Met
G Cairns	Shares	163,660	0	–	–	–	–	0	–	163,660	Met
T Engelhard	Shares	0	34,421	–	–	–	–	0	–	34,421	Met
G Lalicker	Shares	0	100,000	–	–	–	–	0	–	100,000	Met
B Morgan	Shares	47,143	0	–	–	–	–	0	–	47,143	Met
S Perkins	Shares	30,000	0	–	–	–	–	0	–	30,000	Met
S Sargent	Shares	31,429	0	–	–	–	–	0	–	31,429	Met

1 The number of instruments that are held at the start/end of the period, or, where the holder is KMP for part-year only, on the relevant start/end dates of holding KMP office.
2 Rights to equity and restricted shares 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 Purchases and transfers in. For Other Executive KMP this includes allotments of fully paid ordinary shares granted under the General Employee Share Plan (GESP) and allotments of fully paid ordinary shares acquired under the Matching Share Plan (MSP). Executive Directors do not participate in the ESP.
4 After vesting and after payment of the exercise price (the exercise price for DSRs is nil).
5 The value of rights exercised is calculated as the closing market price of the company's shares on the Australian Securities Exchange (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 22 October 2015 (vested 22 October 2018), 30 August 2016 (vested 20 August 2018), 30 August 2017 (vested 10 July 2018) and 7 December 2015 (vested 15 January 2019).
6 Forfeited Options and PSRs were granted in October 2014.
7 Sales and transfers out.
8 The value of equity forfeited represents prior year Origin equity allocations that were forfeited during the year (i.e. the relevant grants realised no benefit and lapsed without value). The forfeited value represents the grant date value that was disclosed and attributed to remuneration at the time of the grant.
9 Rights are automatically exercised on vesting. There were no vested options as at the end of the period.
10 Other than rights and restricted shares disclosed elsewhere in this Report, no other equity instruments including shares in the company were granted to KMP during the period.
11 Minimum shareholding requirements are set out in sections 2.3 and 6.2. The test applied here uses the weighted average share price during the period of $7.64 (as tabled in section 4.1).
12 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.

Table 7-4 Details of equity granted

The table below lists all unissued shares potentially arising from equity-based incentive grants current at 30 June 2019 held by current or former employees (including Executive Directors and Executive KMP). Equity-based incentives are not granted to NEDs. No terms of equity-settled share-based transactions have been altered or modified subsequent to grant. Equity grants that failed to meet their performance hurdles on their final test dates prior to 30 June 2019 have all been lapsed.

Granted	Number Outstanding	Exercise Price	Last possible expiry[1]
Legacy Options			
22 October 2015	2,199,410	$6.78	21 October 2025
30 August 2016	1,484,094	$5.67	28 August 2026
19 October 2016	450,000	$5.21	28 August 2026
30 August 2017	81,441	$7.37	28 August 2026
30 August 2017	949,570	$7.37	23 August 2027
18 October 2017	401,288	$7.37	23 August 2027
Performance Share Rights			
22 October 2015	1,120,138	–	21 October 2019
30 August 2016	1,184,706	–	24 August 2020
19 October 2016	129,558	–	24 August 2020
30 August 2017	841,583	–	23 August 2021
30 August 2017	24,415	–	24 August 2020
18 October 2017	126,866	–	23 August 2021
10 September 2018	1,387,159	–	23 August 2021
17 October 2018	312,245	–	23 August 2021
Deferred Share Rights			
30 August 2016	38,404	–	26 August 2019
30 August 2016	38,404	–	24 August 2020
30 August 2017	93,813	–	10 July 2019
30 August 2017	76,202	–	10 July 2020
30 August 2017	1,478,161	–	26 August 2019
30 August 2017	42,627	–	24 August 2020
30 August 2017	16,570	–	23 August 2021
18 October 2017	45,556	–	26 August 2019
18 October 2017	45,556	–	24 August 2020
18 October 2017	45,556	–	23 August 2021
Matching Share Rights			
26 September 2018	73,999	–	31 October 2020

1 The expiry date is the same as the vesting date where the terms of the grant apply automatic exercise on vesting. Where there is no automatic exercise on vesting, the expiry date is the last possible expiry. Rights and options may expire earlier, for example if the rights/options fail to vest on testing, they will lapse on the vesting date.

Table 7-5 Executive service agreements

The main terms of executive service agreements at 30 June 2019 are set out in the table below.

Item	Details
Basis of contract	Ongoing (no fixed term)
Notice period	CEO – 12 months by either party CFO – 6 months by either party Other Executive KMP – 3 months by either party Shorter notice may apply by agreement No notice for defined circumstances which include but are not limited to serious or persistent or wilful misconduct, or breach of contract, or conduct likely to seriously injure the reputation of the Company
Termination benefits for cause	Statutory entitlements only
Termination benefits for resignation	Notice as above or payment in lieu of notice that is not worked; current-year STI forfeited; all unvested equity lapses; statutory entitlements
Termination benefits for **other than** resignation or cause	Notice worked (or payment in lieu of any portion not worked); prorata STI for the period worked (no deferral applicable); all unvested equity lapses unless held “on foot” in accordance with Equity Incentive Plan Rules (for example in cases of death, disability, genuine retirement or extraordinary circumstance); and statutory entitlements All except CEO – 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
Remuneration	As set out in section 3.1, remuneration is reviewed annually or as required to maintain alignment with policy and benchmarks

Table 9-5 Loans and transactions with KMP

No KMP held any loans with the Company during the financial year. See Notes G4 and G5 in the Notes to the Financial Statements.

Signed in accordance with a resolution of Directors

Gordon Cairns
Chairman

Sydney, 22 August 2019

Lead Auditor's Independence Declaration

KPMG

Lead Auditor's Independence Declaration under Section 307C of the Corporations Act 2001

To the Directors of Origin Energy Limited

I declare that, to the best of my knowledge and belief, in relation to the audit of Origin Energy Limited for the financial year ended 30 June 2019 there have been:

i. no contraventions of the auditor independence requirements as set out in the *Corporations Act 2001* in relation to the audit; and

ii. no contraventions of any applicable code of professional conduct in relation to the audit.

KPMG

KPMG

Duncan McLennan
Partner

Sydney

22 August 2019

Corporate Governance Statement

For the year ended 30 June 2019

This statement has been approved by the Board and summarises the Company's governance practices which were in place throughout the financial year ended 30 June 2019. During the financial year and to the date of this Report, Origin has complied with all the ASX Corporate Governance Principles.

People and culture

Purpose, values and behaviours

Origin's purpose, "Getting energy right for our customers, communities and planet", was launched in FY2018, and is supported by five values:

1. Work as one team, one Origin.
2. Be the customer champion.
3. Care about our impact.
4. Find a better way.
5. Being accountable.

During FY2019, a set of behaviours, linked to each value, was implemented to set expectations for how Origin asks its people to work every day and with each other.

Policies

Origin has a number of policies that set out conduct expectations and decision-making rights across the Group.

Code of Conduct

Origin's Code of Conduct is based on its purpose and values and outlines how all directors, employees and other persons that act on behalf of Origin are expected to care for its people, business and reputation, and to perform their job in line with high ethical standards and applicable legal requirements.

The Board, through the Remuneration and People Committee, is informed of any material breaches of the Code of Conduct and its consequences.

A summary of the Code of Conduct is available on Origin's website.

Reporting and escalating concerns

Origin is committed to a culture that encourages its people and others to speak up about issues or conduct that concerns them.

Origin has a policy for eligible individuals to report concerns, either through their manager, People & Culture, nominated officers within the Group, or an external reporting service where the person may remain anonymous. Those who report are protected from retaliation or victimisation, including protection from termination of employment, harassment and discrimination.

Anti-bribery and facilitation payments

Origin prohibits the offer, payment, solicitation or acceptance of bribes and facilitation payments in any form. It also provides appropriate controls around the provision of gifts and gratuities, both directly and indirectly, to public officials or relatives or associates of public officials. The giving or receiving of gifts or hospitality is prohibited in all circumstances that do not align with Origin's Code of Conduct.

Dealing in Securities Policy

Origin's Dealing in Securities Policy prohibits Origin and its personnel from dealing in the securities of Origin or other companies in a way that breaches the law prohibiting insider trading, harms Origin's reputation, or compromises confidence in Origin's practices in relation to securities dealings. It precludes any Origin personnel from engaging in short-term dealings in the Company's securities and margin loans should not be entered into if they could cause a dealing that requires, or allows for, Origin securities to be disposed of at a time that would be a breach of the policy, or is in breach of the general insider trading provisions of the *Corporations Act 2001* (Cth).

Origin personnel are also prohibited from entering into hedging transactions that operate to limit the economic risk of any of their unvested equity-based incentives. The Dealing in Securities Policy is available on the Company's website.

Diversity

Origin's Diversity and Inclusion policy applies to all aspects of employment including recruitment, selection, promotion, training, remuneration benefits and performance management. There are also procedures in place to prevent and eliminate unlawful discrimination and harassment. The Diversity and Inclusion Policy is available on the Company's website.

Origin promotes a culture where managers and employees proactively apply the diversity policies and programs through effective leadership and communication.

Details of Origin's diversity practices and performance during FY2019 can be found in the Sustainability Report.

Gender diversity

The Board and the Remuneration and People Committee oversees Origin's strategies on gender diversity, including monitoring achievement against gender targets set by the Board.

Origin's diversity targets for FY2019 and the performance against these targets are set out below.

Target	Performance
1. Deliver equal average pay for men and women at each job grade	On an equal-pay-for-equal-work basis[1] the pay gap was within Origin's policy tolerance of ±1 percentage point variation at the conclusion of the 2018–19 annual remuneration review process.
2. Improve the rate of appointment of women to senior roles by 15 per cent compared to FY2018 (i.e. from 31.5% to 36.2%)	The FY2019 result was the in line with prior year (maintained at 31.5%).
3. Reduce the gap between male and female turnover to zero	Total turnover gap moved from −11 percentage points in the prior year to +6 points. While the "gap" reduced and moved closer to zero, it moved from a more favourable female retention to more favourable male retention. A more focused target has been adopted going forward to directly measure female retention, thus complementing the appointment target.

The Remuneration and People Committee monitors the progress towards achieving these gender diversity objectives, including gender pay, and oversees the Company's initiatives to promote broad diversity and inclusion and assess the effectiveness of these programs.

Definition of seniority

For the purpose of gender diversity targets, 'senior roles' includes all people in Hay Pay Scale job grades that pay approximately $180,000 per annum in Fixed Remuneration.[2]

Seniority is defined by reference to standard Hay Pay Scale job grades, rather than reporting relationship to the CEO, for two reasons:

- to make genuine comparisons of seniority. A large number of senior people in corporate support areas such as legal, company secretary, human resources, strategy and communications are only two or three levels below the CEO, while in the operating businesses there are many roles with significant line management responsibility that are more than three levels below; and
- to make analysis comparable over time. Any restructure that changes ELT roles also changes the reporting relationships for hundreds of people at lower levels, making it less valid to accurately compare progress on gender pay equality at those levels before and after the restructure. While Origin does not use reporting relationship to the CEO to define Origin's gender diversity targets, the gender profile of these cohorts is of interest to some external stakeholders and is presented in the cohorts by gender table below.

Female representation within Origin (%)

Female representation (%)	2017	2018	2019
Board[3]	25.0	25.0	25.0
CEO-1[4]	11.1	22.2	22.2
CEO-2[5]	26.2	33.8	40.6
Senior roles	28.9	32.3	30.3
Origin Group	35.1	37.5	36.6

FY2020 targets

Origin's diversity targets for FY2020 will be to increase the proportion of women in senior roles by:

1. delivering equal average pay for men and women at each job grade
2. improving the appointment rate of women to senior roles by 15% year-on-year (to 36.2%)
3. improving the retention rate for women in senior roles from 79% (FY2019) to 85%

The Board has set itself a target of females being at least 40 per cent of the Board by end 2020.

Remuneration

The Remuneration Report sets out details of the Company's policies and practices for remunerating Directors, key management personnel and employees. It also sets out the Remuneration and People Committee's activities.

The remuneration of Non-executive Directors is structured separately from that of the Executive Directors and senior executives.

1 Equal work is defined in terms of the same job grade, measured using Korn Ferry Hay job evaluation methodology.
2 The dollar number is approximate because the boundary is defined by Korn Ferry Hay Group position grading methodology. The corresponding market rate varies with time.
3 Board includes Executive and Non-executive Directors.
4 "CEO-1" is a classification within the WGEA guidelines, which equates to the ELT excluding the CEO.
5 "CEO-2" is a classification within the WGEA guidelines which equates to CEO-1 and their direct reports who are themselves responsible for managing people.

Board and Committees

Board composition, independence and skills

The Board's size and composition is determined by the Directors, within limits set by Origin's Constitution, which requires a Board of between five and 12 Directors. The composition of the Board shall:

- take into account the needs of the Company, including diversity in all respects;
- be of an appropriate size; and
- collectively have the skills, commitment and knowledge of the Company and the industry in which it operates, to enable it to discharge its duties effectively and to add value.

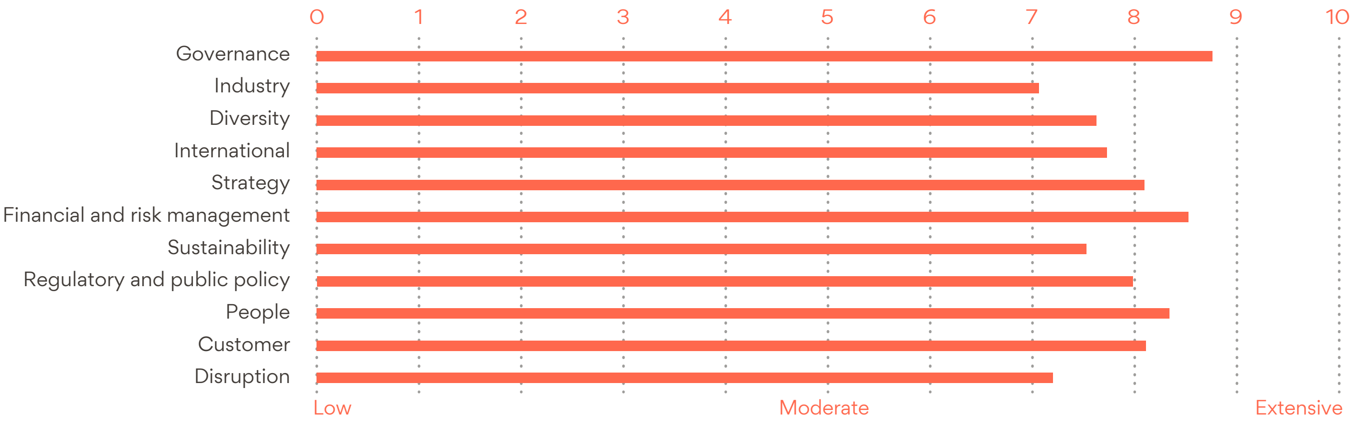
Directors' names, tenure, profiles and details of their skills, experience and special expertise are set out in the Directors' Report.

The Company's policy on the Independence of Directors requires that the Board is comprised of a majority of independent Directors. The Board reviews each Director's independence annually. At its review for the FY2019 reporting period, the Board formed the view that all Non-executive Directors were independent. In defining the characteristics of an independent Director, the Board uses the ASX Principles, together with its own considerations of the Company's operations and businesses and appropriate materiality thresholds. The Independence of Directors Policy which is part of the Board Charter, is available on the Company's website.

The Board reviews the skills matrix periodically to ensure it covers the skills needed to address existing and emerging business and governance issues relevant to the entity.

Together, the Directors contribute the following key skills and experience:

Board skills and experience



Skills and experience

Governance

A commitment to and experience in setting best practice corporate governance policies, practices and standards. Ability to assess the effectiveness of senior management.

Industry

Experience in the energy or oil and gas industry, or upstream or integrated exploration and production company including in-depth knowledge of the Company's strategy, markets, competitors, operational issues, technology and regulatory concerns. This includes advisory roles for these industries.

Diversity

Diversity in gender, background, geographic origin, experience (industry and public, private and non-profit sectors).

International

Exposure to international regions either through experience working in an organisation with global operations or through management of international stakeholder relationships. Understanding of different cultural, political, regulatory and business requirements.

Strategy

Senior executive and directorship experience, dealing with complex business models and projects. Experience in developing, setting and executing strategic direction and driving growth.

Financial and risk management

Senior executive experience in financial accounting and reporting, corporate finance, risk and internal controls. Experience in anticipating and evaluating risks that could impact the business, recognising and managing these risks through sound risk governance policies and frameworks.

Sustainability

Experience in programs implementing health, safety and environment, including mental health and physical wellbeing. Ability to identify economically, socially and environmentally sustainable developments and to set and monitor sustainability aspirations, including relating to climate change.

Regulatory and public policy

Experience in the identification and resolution of legal and regulatory issues. Experience in public and regulatory policy, including how it affects corporations.

People

Experience in building workforce capability, setting a remuneration framework which attracts and retains a high calibre of executives, promotion of diversity and inclusion.

Customer

Experience in industries which have high degrees of customer centricity.

Disruption

Background in an industry that has faced significant disruptive change.

Roles and responsibilities

The Board's roles and responsibilities are formalised in a Board Charter, which is available on the Company's website. The Charter sets out those functions that are delegated to management and those that are reserved for the Board.

The Board selects and appoints the Chairman from the independent Directors. The Chairman, Mr Cairns, is independent and his role and responsibilities are separate from those of the Managing Director and Chief Executive Officer (CEO).

The Company Secretary is accountable directly to the Board, through the Chairman, on all matters to do with the proper functioning of the Board.

Prior to joining Origin, Directors and senior executives are provided with letters of appointment, together with key Company documents and information, setting out their term of office, duties, rights and responsibilities, entitlements on termination, and the requirement to notify the Company of, or to seek the Company's approval before accepting, any new role that could impact upon the time commitment expected of the Director or give rise to a conflict of interest. Directors are also asked to specifically acknowledge to Origin that they will have sufficient time to fulfil their responsibilities as a director.

Board and senior executive appointment and re-election

Prior to considering the appointment of a new Director, the Committee evaluates the balance of skills, knowledge, experience, independence and diversity on the Board, and identifies the appropriate capabilities required based on that assessment. If these criteria are met and the Board appoints the candidate as a Director, that Director will stand for election by shareholders at the following Annual General Meeting (AGM).

Before a Director is appointed, Origin undertakes appropriate evaluations. These include independent checks of a candidate's character, experience, education, criminal record, bankruptcy history, and any other factors which would affect the Company's or the individual's reputation.

Prior to the engagement of senior executives, appropriate background checks are also carried out, in accordance with Origin's recruitment policies.

Each year the performance of the Directors retiring by rotation and seeking re-election under the Constitution is reviewed by the Nomination Committee (other than the relevant Director), the results of which form the basis of the Board's recommendation to shareholders. The review considers a Director's expertise, skill and experience, along with his/her understanding of the Company's business, preparation for meetings, relationships with other Directors and management, awareness of ethical and governance issues, independence of thought and overall contribution.

Where a candidate is standing for election or re-election as Director, the notice of meeting will set out information on the candidate including biographical details, qualifications and experience, independence status, outside interests and the recommendation of the rest of the Board on the resolution. It will confirm that the Company has conducted appropriate checks into the candidate's background and experience and will advise if those checks had revealed any information of concern.

Director induction and professional development

New Directors undertake induction training, tailored to their existing skills, knowledge and experience on Origin's strategy, structure, operations, culture and key risks. New Directors are provided with copies of Origin's key governance documents and policies and participate in comprehensive briefings with the Chairman of the Board, Chairs of each Board Committee, the CEO and the ELT, the Company Secretary, and the internal and external auditor. New Directors also undertake visits to Origin's major sites.

Directors also receive continuing professional education through ongoing briefings and workshops on industry, regulatory or other relevant topics and attendance at industry or governance conferences to deal with new emerging business and governance issues.

Performance review

Each year, the Directors review the performance of the whole Board, Board committees and individual Directors. This year, a full review was undertaken with assistance from an independent external consultant, covering individual Director performance, the Board and Committees' activities and work program, time commitments, meeting efficiency and Board contribution to Company strategy, monitoring, compliance and the governance processes which support the Board. The results of the review were discussed by the whole Board, and initiatives to improve or enhance Board performance and effectiveness were considered and recommended. Individual Director feedback was discussed directly between that Director and the Chairman. The Chairman's performance feedback is shared with the Board for discussion.

The performance of all key executives, including the CEO, is reviewed annually against:

- a set of personal financial and non-financial goals;
- Company and Business-Unit specific goals; and
- adherence to the Company's culture and behaviour standards.

The Remuneration and People Committee and the Board consider the performance of the CEO and all members of the Executive Leadership Team (ELT) when deciding whether to award performance-related remuneration through short-term and long-term incentives for the year completed and when assessing fixed remuneration for future periods. Further information on the outcomes of the FY2019 assessment of executive remuneration is set out in the Remuneration Report.

Board Committees

Five Committees assist the Board in executing its duties. Each Committee has its own Charter which sets out its role, responsibilities, composition, structure, membership requirements and operation. These are available on the Company's website. From time to time, other special Committees are convened to assist the Board with particular matters or to exercise the delegated authority of the Board. Each Committee's Chairman reports to the Board on the Committee's deliberations at the following Board meeting where the Committee meeting minutes are also tabled. All Directors have access to Committee papers and may attend Committee meetings unless there is a conflict of interest.

The members of each Committee and their attendance at Board and Committee meetings during FY2019 is set out in the Directors' Report.

Audit	Remuneration and People	HSE	Nomination	Risk
Each of the Committees assists the Board on matters relating to:				
– the integrity and adequacy of the Company's accounting and corporate reporting systems, policies and processes; – the internal control framework; and – the external and internal audit functions.	– Origin's people strategies, policies, practices and Company culture; – the remuneration strategy, policy and structure and specific remuneration outcomes for the CEO and ELT; and – senior executive appointments, development and succession planning including diversity.	– Origin's HSE risks and/or impacts arising out of the activities and operations of Origin; – compliance with statutory HSE obligations and internal HSE requirements; – specific HSE risks and/ or impacts and learnings from those; – activities of executive management to enhance the HSE culture of Origin; and – environment (emissions reduction).	– the composition of the Board, including Board skills, independence and diversity; – Board and CEO succession planning including the process for identifying and appointing new directors and the CEO; – Board and director performance evaluation; and – Director induction and continuing professional development.	– Origin's risk management framework; – the performance against the risk management framework; – material and emerging risks, such as conduct risk, digital disruption, cyber-security, privacy and data breaches, sustainability and climate change; – the Company's compliance framework; – fraud; and – sustainability disclosures.
The Committee's membership consists of:				
– four Non-executive Directors, all of whom are independent, including the Chairman, who has significant financial expertise and is not the Chairman of the Board. All members of the Committee are financially literate and the Committee possesses sufficient accounting and financial expertise and knowledge of the industry in which Origin operates.	– four Non-executive Directors, all of whom are independent, including the Chairman.	– the CEO and four independent Non-executive Directors. The direct impact the deliberations of the Committee can have on the day-to-day operations of Origin makes it appropriate for the CEO to be a member of the Committee. The majority of the Committee, and its Chairman, are independent.	– the Chairman of the Board and the Chair of each other Board Committee, all of whom are independent.	– the Chairman of the Board and the Chair of each other Board Committee, all of whom are independent.

Board and Committee meetings

In FY2019, the Board had 10 scheduled meetings, including a two-day strategic planning meeting. The Board and committees also had seven separate scheduled workshops to consider matters of particular relevance. Outside of scheduled meetings, the full Board met on one other occasion to consider urgent matters. In addition, the Board and individual directors conducted visits of Company operations and met with operational management during the year on various matters. The Board also undertook visits to the US during the year to meet with Origin's current and potential partners.

From time to time, the Board delegates its authority to non-standing committees of Directors to consider transactional or other matters. In the 12 months to 30 June 2019, one such additional Board Committee meeting was held.

At Board meetings, Directors receive reports from executive management on financial and operational performance, risk, strategy, people, HSE, and major projects or initiatives in which Origin is involved. In addition, the Directors receive reports from Board committees and, as appropriate, presentations on opportunities and risks for the Company.

Non-executive Directors also meet without the presence of the CEO or other management to address such matters as succession planning, key strategic issues, and Board operation and effectiveness.

Access to advice and information

All Directors have access to Company employees, advisers and records. In carrying out their duties and responsibilities, Directors have access to advice and counsel from the Chairman and the Company Secretary, and are able to seek independent professional advice at the Company's expense, after consultation with the Chairman.

Shareholders

Disclosure

Origin has adopted policies and procedures designed to ensure compliance with its continuous disclosure obligations under ASX Listing Rule 3.1 and make senior management and the Board accountable for that compliance. The Continuous Disclosure Policy is available on the Company's website.

All material matters are disclosed immediately to the stock exchanges on which Origin's securities are listed (and subsequently to the media, where relevant), as required by the relevant listing rules.

All material investor presentations are released to the stock exchanges and are posted on the Company's website. Other reports or media statements that do not contain price sensitive information are included on the Company's website. Shareholders can subscribe to an email notification service and receive notice of any stock exchange announcements released by the Company. The Board receives copies of all material market announcements promptly after they have been made.

Origin also provides periodic disclosure that keeps the market informed, including quarterly releases detailing exploration, development and production, and half and full year reports to shareholders.

Origin also participates in industry conferences and hosts investor briefings. Copies of presentation materials of any new and substantive investor or analyst presentations are released to the stock exchanges ahead of the presentation.

Investor relations

Origin has a wide stakeholder engagement program and a dedicated investor relations function to facilitate effective two-way communication with investors. The Company participates in regular surveys to garner feedback from investors on how this function is performing and can be improved. The Chairman and the Chairman of the Remuneration and People Committee meet with investors and proxy advisors twice a year.

Website and electronic communications

Origin respects the rights of its shareholders and has adopted policies to facilitate the effective exercise of those rights through participation at general meetings and with the provision of information about Origin and its operations.

All communications from, and most communications to, Origin's share registry are available electronically and shareholders are encouraged to take up the option of e-communications.

Shareholders can review the financial and non-financial performance of Origin via a half year report, shareholder review, annual report, sustainability report, investor presentations and Annual General Meeting materials. These reports are also available on the ASX and on Origin's website. Shareholders may also request hard copies.

Origin's website contains a list of key dates and all recent announcements, presentations, past and current company reports and notices of meetings. Shareholder meetings and results announcements are webcast and an archive of these meetings is published on the Company's website.

Annual General Meeting

Origin encourages shareholders to attend and participate in its AGM, either in person, by proxy or attorney, or by other means adopted by the Board. At the AGM, the Chairman allows a reasonable opportunity for shareholders to ask questions of the Board and the external auditors. The external auditor attends the Company's AGM and is available to answer questions from shareholders relevant to the audit. Shareholders who are unable to attend the AGM can view a webcast of the meeting on the Company's website.

All substantive resolutions at an Origin meeting of shareholders are decided by a poll rather than by a show of hands.

Risk and assurance

Risk framework

Origin's approach to risk management aims to embed a risk-aware culture in all decision-making and to manage risk in a proactive and effective manner. The Board has an overarching policy governing the Company's approach to risk oversight and management and internal control systems. This policy and further information on Origin's approach to managing its material risks is available on the Company's website.

The Company's risk policies are designed to identify, assess, manage and monitor strategic, operational, financial and project risks and mitigate the impact in the event that they materialise. The Board has also approved policies for hedging interest rates, foreign exchange rates and commodities. Certain specific risks are covered by insurance.

Management is responsible for the design and implementation of the risk management and internal control systems to manage the Company's risks. Management reports to the Risk Committee on how material risks are being managed and the effectiveness of controls in place to mitigate those risks. The Risk Committee has an annual calendar that includes regular detailed risk profile reviews.

The Risk Committee reviews the Company's risk management framework annually to satisfy itself that it continues to be sound and that the entity is operating with due regard to the risk appetite set by the Board. This includes the Committee satisfying itself that the risk management framework deals adequately with emerging risks such as conduct risk, digital disruption, cyber-security, privacy and data breaches, sustainability and climate change. The Risk Committee oversees the Company's insurance program, having regard to the Company's business and associated insurable risks.

An independent review of the risk management framework was completed during the financial year and it found the framework to be sound. Management has reported to the Risk Committee and the Board that, as at 30 June 2019, the framework is sound based on this review and the subsequent framework improvements completed.

Assurance

Origin's approach to the management of risks and controls reflects the 'three lines of defence' model. The first line of defence comprises operational business managers that own and manage risks. The second line of defence comprises the corporate functions that oversee/monitor/challenge risks. The third line of defence comprises the Origin Group's internal audit function that assures compliance with policies and standards.

The internal audit function utilises both internal and external resources to provide an independent appraisal of the adequacy and effectiveness of the Company's risk management and internal control systems. The internal auditor has direct access to the Chairman of the Audit Committee and management, and has the right to seek information. A risk-based approach is used to develop the annual internal audit plan, aligning planned internal audit activities to the Company's material risks. The internal audit plan is approved by the Audit and HSE Committees annually and reviewed quarterly for the effectiveness of its governance, risk management and internal control processes.

In addition to internal audit activities, second line assurance activity is undertaken across the business in the management of risk. The findings of this activity are reported through to the relevant executive and, where appropriate, relevant Board Committees.

CEO/CFO sign-off

Prior to approval of the Company's financial statements for each financial period, the Managing Director and Chief Executive Officer and the Chief Financial Officer give the Board a declaration that, in their opinion, the financial records have been properly maintained, that the financial statements complied with the accounting standards and gave a true and fair view, and that their opinion had been formed on the basis of a sound system of risk management and internal compliance and control which was operating effectively.

External audit

The external auditors have direct access to the Chairman of the Audit Committee and meet separately with the Audit Committee without management present.

The Committee reviews the independence of the external auditor, including the nature and level of non-audit services provided, and reports its findings to the Board every six months.

Environmental, Social and Governance (ESG) matters

Beyond the financial results, Origin is witnessing changes in community attitudes and increased focus on local and global environmental challenges. Origin recognises the need for disclosure and transparency of decision making to help investors assess both short-term and long-term risks and prospects.

Origin assesses the environmental and social risks associated with projects and operations. Projects are developed with precautionary engineering and management measures in place to mitigate or manage key environmental and social risks, and operations are managed using policies and procedures to control remaining environmental and social risks. Environmental and social risk management is subject to periodic audits and assurance.

One source of environmental risks relates to climate change. As one of Australia's largest power generators, Origin closely measures, manages and reports on the greenhouse gas emissions associated with its operations. These emissions are governed by laws and regulations. Origin has set emissions reductions targets and has a five-pillar strategy to decarbonise its business and achieve these targets, including exiting coal-fired generation by 2032 and significantly growing renewable generation in its portfolio.

Further information on Origin's management and performance in the social and environmental aspects in operating its business, including further details on its emissions reduction targets and decarbonisation strategy, is contained in the FY2019 Sustainability Report.

Origin measures its reputation, that is, how Origin is perceived by Australians (including shareholders) using RepTrak® methodology. Origin's reputation performance and reputation risk issues are periodically reported to the Board.

In addition to stakeholder measurement through RepTrak®, Origin also engages external advisors to provide real-time monitoring of mainstream and social media to evaluate the external operating environment and ensure emerging risks, issues and shifting public and policy debates are identified and addressed accordingly. Quarterly quantitative and qualitative mainstream media analysis is undertaken to better understand external trends, and sentiment and key public influencers.

These insights influence and inform Origin's external affairs and stakeholder engagement strategies, as well as customer facing positioning and community engagement programs.

Sustainability reporting

Origin is a supporter of the Financial Stability Board's Taskforce on Climate related Financial Disclosures (TCFD) and commenced implementing the recommendations in FY2018. FY2019 disclosures aligned with the TCFD recommendations are contained in the FY2019 Sustainability Report.

Sustainability reporting is guided by the Global Reporting Initiative and includes disclosures of material ESG aspects of the Company's business activities. This year, Origin has reported the sustainability aspects which are considered the most important to our stakeholders. We have identified where each of these aspects aligns with the Sustainable Development Goals of the United Nation's 2030 Agenda for Sustainable Development.

Origin also discloses other ESG information via regulated National Greenhouse Emissions Reporting, as well as voluntary disclosure platforms such as the Carbon Disclosure Project. Origin regularly engages with and provides requested information to research firms. Origin was again included in the FTSE4Good Index and again received MSCI ESG's AA rating during the period.

Customers

Customers are a central part of Origin's engagement, innovation and value creation. Origin continues to adapt processes, introduce new products and invest in technology to provide customers with greater choice, better value and an improved customer experience.
The Sustainability Report provides further information on Origin's interaction with its customers.

Stakeholder engagement

Origin's projects and operations necessitate interaction with a range of stakeholders including local communities, business partners, government, industry, media, suppliers and NGOs. Origin has a program to support these stakeholder interactions and facilitate constructive relationships, including:

- dedicated community advisors to help facilitate and implement Origin's engagement with local communities and regular dialogue with the communities in which Origin operates;
- a government relations team which regularly interacts with policy makers to help develop sound and stable policy to ensure business certainty;
- dedicated external affairs team with regular interaction with media and NGOs to create a better understanding of Origin's business; and
- making a contribution to the formulation of public policy through submissions to various inquiries.

Further information on Origin's approach to its people, communities and governments can be found in the Sustainability Report.

Origin's approach to industry association memberships can also be found in the Sustainability Report and its website.

Information referred to in this Corporate Governance Statement as being on the Company's website may be found at the web address: originenergy.com.au under the section 'About Origin – Investors & media – Governance'.

Financial Statements

30 June 2019

Income Statement
For the year ended 30 June

	Note	2019 $m	2018 $m
Continuing operations			
Revenue	A2	14,727	14,604
Other income	A3	26	253
Expenses	A4	(13,953)	(14,589)
Results of equity accounted investees	B1	632	205
Interest income	A3	234	229
Interest expense	A4	(388)	(500)
Profit before income tax		**1,278**	**202**
Income tax (expense)/benefit	E1	(64)	81
Profit for the year from continuing operations		**1,214**	**283**
Discontinued operations			
Loss from discontinued operations		–	(62)
Profit for the year		**1,214**	**221**
Profit for the year attributable to:			
Members of the parent entity		1,211	218
Non-controlling interests		3	3
Profit for the year		**1,214**	**221**
Earnings per share			
Basic earnings per share	A5	68.8 cents	12.4 cents
Diluted earnings per share	A5	68.7 cents	12.3 cents
Profit from continuing operations attributable to:			
Members of the parent entity		1,211	280
Non-controlling interests		3	3
Profit for the year from continuing operations		**1,214**	**283**
Earnings per share from continuing operations			
Basic earnings per share	A5	68.8 cents	15.9 cents
Diluted earnings per share	A5	68.7 cents	15.9 cents

The income statement should be read in conjunction with the accompanying notes set out on pages 101 to 162.

Statement of Comprehensive Income

For the year ended 30 June

	Note	2019 $m	2018 $m
Profit for the year		**1,214**	**221**
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Investment valuation changes		5	–
Items that can be reclassified to profit or loss			
Translation of foreign operations		341	278
Cash flow hedges			
Reclassified to income statement	D4	(122)	(75)
Effective portion of change in fair value	D4	223	(31)
Investment valuation changes		–	(6)
Total other comprehensive income, net of tax		**447**	**166**
Total comprehensive income for the year		**1,661**	**387**
Total comprehensive income attributable to:			
Members of the parent entity		1,662	383
Non-controlling interests		(1)	4
		1,661	387
Total comprehensive income for the year		**1,661**	**387**
Total comprehensive income for the year attributable to members of the parent entity arising from:			
Continuing operations		1,662	462
Discontinued operations		–	(79)

The statement of comprehensive income should be read in conjunction with the accompanying notes set out on pages 101 to 162.

Statement of Financial Position
as at 30 June

	Note	2019 $m	2018 Restated[1] $m
Current assets			
Cash and cash equivalents		1,546	150
Trade and other receivables	C1	2,324	2,537
Inventories		137	196
Derivatives	D4	472	522
Other financial assets	C6	318	267
Assets classified as held for sale	F4	254	–
Other assets		112	94
Total current assets		**5,163**	**3,766**
Non-current assets			
Trade and other receivables	C1	7	4
Derivatives	D4	962	1,117
Other financial assets	C6	3,152	3,683
Investments accounted for using the equity method	B2	6,960	5,988
Property, plant and equipment (PP&E)	C3	3,597	3,696
Exploration and evaluation assets	C2	98	363
Intangible assets	C4	5,381	5,328
Deferred tax assets	E2	380	277
Other assets		43	35
Total non-current assets		**20,580**	**20,491**
Total assets		**25,743**	**24,257**
Current liabilities			
Trade and other payables		2,006	2,068
Payables to joint ventures		204	221
Interest-bearing liabilities	D2	948	1,089
Derivatives	D4	384	424
Other financial liabilities	C6	308	304
Provision for income tax		160	115
Employee benefits		189	175
Provisions	C5	45	53
Liabilities classified as held for sale	F4	23	–
Total current liabilities		**4,267**	**4,449**
Non-current liabilities			
Trade and other payables		2	5
Interest-bearing liabilities	D2	6,648	6,350
Derivatives	D4	1,119	1,234
Employee benefits		31	30
Provisions	C5	527	361
Total non-current liabilities		**8,327**	**7,980**
Total liabilities		**12,594**	**12,429**
Net assets		**13,149**	**11,828**
Equity			
Contributed equity	D3	7,125	7,150
Reserves		1,089	629
Retained earnings		4,915	4,025
Total parent entity interest		**13,129**	**11,804**
Non-controlling interests		20	24
Total equity		**13,149**	**11,828**

(1) Refer to Overview for a discussion of reclassifications.

The statement of financial position should be read in conjunction with the accompanying notes set out on pages 101 to 162.

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 30 June 2018	**7,150**	**247**	**391**	**13**	**(22)**	**4,025**	**24**	**11,828**
Adoption of AASB9 (refer Overview)	–	–	–	–	22	(145)	–	(123)
Balance as at 1 July 2018	**7,150**	**247**	**391**	**13**	**–**	**3,880**	**24**	**11,705**
Profit	–	–	–	–	–	1,211	3	1,214
Translation of foreign operations	–	–	345	–	–	–	(4)	341
Cash flow hedges	–	–	–	101	–	–	–	101
Investment valuation changes	–	–	–	–	5	–	–	5
Total other comprehensive income	**–**	**–**	**345**	**101**	**5**	**–**	**(4)**	**447**
Total comprehensive income for the year	**–**	**–**	**345**	**101**	**5**	**1,211**	**(1)**	**1,661**
Dividends provided for or paid	–	–	–	–	–	(176)	(3)	(179)
Movement in contributed equity (refer to note D3)	(25)	–	–	–	–	–	–	(25)
Share-based payments	–	(13)	–	–	–	–	–	(13)
Total transactions with owners recorded directly in equity	**(25)**	**(13)**	**–**	**–**	**–**	**(176)**	**(3)**	**(217)**
Balance as at 30 June 2019	**7,125**	**234**	**736**	**114**	**5**	**4,915**	**20**	**13,149**
Balance as at 1 July 2017	**7,150**	**222**	**114**	**119**	**(16)**	**3,807**	**22**	**11,418**
Profit	–	–	–	–	–	218	3	221
Translation of foreign operations	–	–	277	–	–	–	1	278
Cash flow hedges	–	–	–	(106)	–	–	–	(106)
Investment valuation changes	–	–	–	–	(6)	–	–	(6)
Total other comprehensive income	**–**	**–**	**277**	**(106)**	**(6)**	**–**	**1**	**166**
Total comprehensive income for the year	**–**	**–**	**277**	**(106)**	**(6)**	**218**	**4**	**387**
Dividends provided for or paid	–	–	–	–	–	–	(2)	(2)
Share-based payments	–	25	–	–	–	–	–	25
Total transactions with owners recorded directly in equity	**–**	**25**	**–**	**–**	**–**	**–**	**(2)**	**23**
Balance as at 30 June 2018	**7,150**	**247**	**391**	**13**	**(22)**	**4,025**	**24**	**11,828**

The statement of changes in equity should be read in conjunction with the accompanying notes set out on pages 101 to 162.

Statement of Cash Flows
For the year ended 30 June

	Note	2019 $m	2018 Restated[1] $m
Cash flows from operating activities			
Receipts from customers		16,552	16,171
Payments to suppliers and employees		(15,117)	(15,010)
Cash generated from operations		1,435	1,161
Income taxes paid, net of refunds received		(110)	(38)
Net cash from operating activities	G6	**1,325**	**1,123**
Cash flows from investing activities			
Acquisition of PP&E		(190)	(314)
Acquisition of exploration and development assets		(18)	(11)
Acquisition of other assets		(133)	(87)
Acquisition of OC Energy, net of cash acquired		(29)	–
Acquisition of other investments		(35)	(10)
Interest received from other parties		2	2
Net proceeds from sale of non-current assets		18	1
Net proceeds from sale of investment in Acumen Energy		–	267
Net proceeds from sale of investment in Lattice Energy		–	1,217
Australia Pacific LNG (APLNG) investing cash flows			
– Contributions to APLNG		–	(74)
– Receipt of Mandatorily Redeemable Cumulative Preference Shares (MRCPS) interest		229	227
– Proceeds from APLNG buy-back of MRCPS		745	134
Net cash from investing activities		**589**	**1,352**
Cash flows from financing activities			
Proceeds from borrowings		2,063	925
Repayment of borrowings		(1,878)	(2,600)
Joint venture operator cash call movements		7	(81)
Settlement of foreign currency contracts		(64)	(56)
Interest paid		(375)	(474)
Dividends paid to shareholders of Origin Energy Ltd, net of Dividend Reinvestment Plan		(162)	–
Dividends paid to non-controlling interests		(3)	(2)
Early settlement of forward oil sale		–	(265)
Repayment of Debt Service Reserve Account (DSRA) loan to equity accounted investees		(31)	–
Loan from equity accounted investees		–	76
Purchase of shares on-market (treasury shares)		(77)	–
Net cash used in financing activities		**(520)**	**(2,477)**
Net increase/(decrease) in cash and cash equivalents		**1,394**	**(2)**
Cash and cash equivalents at the beginning of the period		**150**	**151**
Effect of exchange rate changes on cash		2	1
Cash and cash equivalents at the end of the period[2]		**1,546**	**150**

(1) Refer to Overview for a discussion of reclassifications.

(2) This balance includes $1,246 million (2018: Nil) of deposits that will be used to redeem the €1 billion Hybrid in September 2019 (refer note G12) and the €500 million Euro Medium Term Note maturing in October 2019.

The statement of cash flows should be read in conjunction with the accompanying notes set out on pages 101 to 162.

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) are described in the segment information in note A1.

On 22 August 2019, the Directors resolved to authorise the issue of these consolidated general purpose financial statements for the year ended 30 June 2019.

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 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.

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. Refer to note G11 for further details.

Use of judgements and estimates

The preparation of financial statements in conformity with AASBs 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.

Reclassifications

The following comparative amounts have been reclassified for consistency with current period presentation:

Balance sheet

- a $59 million increase in other financial assets – current and a corresponding decrease in other assets – current to better reflect the nature of the Group's collateral held by the Sydney Futures Exchange; and
- a $57 million increase in other payables – current and a corresponding decrease in other financial liabilities – current to better reflect the nature of accrued option premiums.

Cash flows

- a decrease of $56 million in repayment of borrowings to separately disclose the settlement of foreign exchange contracts within cash flows from financing activities;
- a decrease of $81 million in repayment of borrowings to separately disclose joint venture operator cash calls within cash flows from financing activities; and
- a decrease of $170 million in repayment of borrowings and a corresponding increase in payments to suppliers and employees to better reflect the nature of collateral deposited with, and returned by, the Sydney Futures Exchange as cash flows from operating activities.

AASB 15 *Revenue from Contracts with Customers*

AASB 15 supersedes AASB 118 *Revenue* and AASB 111 *Construction Contracts* and applies to all revenue arising from contracts with customers. The adoption of AASB 15 from 1 July 2018 did not have a material impact on the recognition, timing or measurement of the Group's revenue. Under the new standard, amounts previously recorded within revenue in respect of certain power purchase arrangements and gas swaps are now recorded on a net basis within cost of sales. The new standard has been applied using the modified retrospective method and accordingly prior period amounts have not been restated.

Overview (continued)

Adoption of AASB 9 *Financial Instruments*

AASB 9 replaces the provisions of the former accounting standard AASB 139 *Financial Instruments* that relate to recognition, classification and measurement of financial assets and liabilities, impairment of financial assets and hedge accounting.

The adoption of AASB 9 from 1 July 2018 has resulted in changes to the Group's accounting policies and adjustments to the amounts recognised in the financial statements, most significantly to the carrying value of mandatorily redeemable cumulative preference shares (MRCPS) issued by APLNG. In accordance with the transitional provisions in AASB 9 comparative figures have not been restated.

The impacts on the equity of the Parent entity and the Group as at 1 July 2018 are set out below.

		Parent entity	Group	
$m	**Ref.**	**Retained earnings**	**Fair value reserve**	**Retained earnings**
Opening balance – AASB 139		**2,880**	**(22)**	**4,025**
Reclassification and remeasurement of MRCPS issued by APLNG	(a)	(108)	–	(108)
Reclassification of Settlement Residue Distribution Agreement units	(a)	–	22	(22)
Increase in provision for trade receivables and unbilled revenue	(b)	–	–	(15)
Total impact		**(108)**	**22**	**(145)**
Opening balance – AASB 9		**2,772**	**–**	**3,880**

(a) Classification and measurement of financial assets and liabilities

From 1 July 2018, the Group classifies its financial assets in the following measurement categories:

- those to be measured at amortised cost;
- those to be measured subsequently at fair value through profit or loss (FVPL); and
- those to be measured subsequently at fair value through other comprehensive income (FVOCI).

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows. Generally, under AASB 9 financial assets must be recorded at fair value unless their cash flows represent solely payments of principal and interest.

The table below sets out the previous measurement categories under AASB 139 and the new measurement categories under AASB 9 for each class of the Group's financial assets as at 1 July 2018. AASB 9 has not had a significant impact on the Group's accounting policies related to financial liabilities and derivatives.

	Classification		Carrying amount	
$m	**Previous**	**New**	**Previous**	**New**
Trade receivables and unbilled revenue(1)	Amortised cost	Amortised cost	2,541	2,541
MRCPS issued by APLNG	Amortised cost	FVPL	3,620	3,465
Settlement Residue Distribution Agreement units	Available-for-sale	FVPL	46	46
Origin Foundation investment fund units	Available-for-sale	FVPL	57	57
Equity securities	Available-for-sale	FVOCI(2)	15	15
Environmental scheme certificates	FVPL	FVPL	153	153
Futures collateral	Amortised cost	Amortised cost	59	59

(1) Amount excludes the impairment adjustment recognised on adoption of AASB9.
(2) As permitted by the standard, the Group has elected to present changes in the fair value of its equity securities in OCI.

(b) Impairment of financial assets

The Group's trade receivables and unbilled revenue are subject to a new expected credit loss model for impairment of financial assets. On adoption of AASB 9, the Group was required to revise its impairment methodologies resulting in a $21 million ($15 million post-tax) increase in the impairment allowance recorded at 1 July 2018.

Hedging

The Group elected to adopt the new AASB 9 hedge accounting model. All existing hedge relationships as at 30 June 2018 met the criteria for hedge accounting under AASB 9 and are therefore regarded as continuing hedging relationships.

A Results for the year

This section highlights the performance of the Group for the year, including results by operating segment, income and expenses, 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, power generation and LPG operations predominantly in Australia.
- **Integrated Gas:** Origin's investment in APLNG, growth assets business and management of LNG price risk through hedging and trading activities. The investment in APLNG is presented separately from the residual component of the segment in the following tables for greater transparency.
- **Corporate:** Various business development and support activities that are not allocated to operating segments.

Underlying profit and underlying EBITDA are the primary alternative performance measures used by the Managing Director for the purpose of assessing performance of each operating segment and the Group. 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 which distort that 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 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 shown below.

- 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;
- 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; and
- Impairments of assets.

A1 Segments (continued)

Segment result for the year ended 30 June

		Energy Markets[1]		Integrated Gas Share of APLNG		Integrated Gas Other		Corporate		Total continuing operations		Discontinued operations		Consolidated	
$m	**Ref.**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Revenue															
Segment revenue		14,293	14,344	–	–	434	260	–	–	14,727	14,604	–	477	14,727	15,081
Eliminations[2]		–	–	–	–	–	–	–	–	–	–	–	(198)	–	(198)
External revenue		**14,293**	**14,344**	**–**	**–**	**434**	**260**	**–**	**–**	**14,727**	**14,604**	**–**	**279**	**14,727**	**14,883**
EBITDA		**1,492**	**1,592**	**2,142**	**1,397**	**2**	**(764)**	**(275)**	**(179)**	**3,361**	**2,046**	**–**	**7**	**3,361**	**2,053**
Depreciation and amortisation		(401)	(359)	–	–	(18)	(22)	–	–	(419)	(381)	–	–	(419)	(381)
Share of ITDA of equity accounted investees		–	–	(1,516)	(1,196)	6	4	–	–	(1,510)	(1,192)	–	–	(1,510)	(1,192)
EBIT		**1,091**	**1,233**	**626**	**201**	**(10)**	**(782)**	**(275)**	**(179)**	**1,432**	**473**	**–**	**7**	**1,432**	**480**
Interest income[3]						226	227	8	2	234	229	–	–	234	229
Interest expense[3]								(388)	(500)	(388)	(500)	–	(8)	(388)	(508)
Income tax (expense)/benefit[4]								(64)	81	(64)	81	–	(61)	(64)	20
Non-controlling interests (NCI)								(3)	(3)	(3)	(3)	–	–	(3)	(3)
Statutory profit/(loss) attributable to members of the parent entity		**1,091**	**1,233**	**626**	**201**	**216**	**(555)**	**(722)**	**(599)**	**1,211**	**280**	**–**	**(62)**	**1,211**	**218**
Reconciliation of statutory profit/(loss) to segment result and underlying profit/(loss)															
Fair value and foreign exchange movements	**(a)**	(61)	(299)	–	–	271	(89)	(11)	(3)	199	(391)	–	(35)	199	(426)
Disposals, impairments and business restructurin	**(b)**	(21)	239	13	(6)	(38)	(520)	(29)	(63)	(75)	(350)	–	(228)	(75)	(578)
Tax and NCI on items excluded from underlying profit								59	295	59	295	–	17	59	312
Total significant items		**(82)**	**(60)**	**13**	**(6)**	**233**	**(609)**	**19**	**229**	**183**	**(446)**	**–**	**(246)**	**183**	**(692)**
Segment result and underlying profit/(loss)		**1,173**	**1,293**	**613**	**207**	**(17)**	**54**	**(741)**	**(828)**	**1,028**	**726**	**–**	**184**	**1,028**	**910**
Underlying EBITDA		**1,574**	**1,651**	**2,123**	**1,405**	**(231)**	**(154)**	**(234)**	**(115)**	**3,232**	**2,787**	**–**	**270**	**3,232**	**3,057**

(1) For the purpose of comparability, the June 2018 period has been restated to include $160 million ($112 million post-tax) of premiums relating to certain electricity hedges within underlying earnings.

(2) In the comparative period, discontinued Lattice Energy entities sold gas and LPG to the Energy Markets segment on an arm's-length basis.

(3) Interest income earned on MRCPS has been allocated to the Integrated Gas – Other segment. Interest expense related to general financing is allocated to the Corporate segment, with the exception of amounts allocated to discontinued operations in the prior year.

(4) Income tax expense for entities in the Origin tax consolidated group is allocated to the Corporate segment with the exception of amounts related to discontinued operations in the prior year.

A1 Segments (continued)

$m	2019 Gross	2019 Tax and NCI	2018 Gross	2018 Tax and NCI
(a) Fair value and foreign exchange movements				
Decrease in fair value of derivatives[1][2]	(102)	30	(418)	125
Increase/(decrease) in fair value of other financial assets/liabilities	391	(117)	(46)	14
Foreign exchange (loss)/gain on LNG-related financing	(90)	27	38	(11)
Fair value and foreign exchange movements	**199**	**(60)**	**(426)**	**128**
(b) Disposals, impairments and business restructuring				
Capital tax loss recognition – Ironbark	–	68	–	–
Gain on sale of Denison – share of APLNG[3]	13	–	–	–
Gain on sale – Origin LPG (Vietnam) LLC	5	(1)	–	–
Gain on sale – Energia Austral SpA	5	(1)	–	–
Loss on sale – Dandenong Cogent assets	(2)	–	–	–
Gain on sale – Acumen	–	–	239	–
Recycling of foreign currency translation reserve to profit or loss – Lattice Energy[4]	–	–	(27)	–
Gain on sale – Jingemia[4]	–	–	7	(2)
Loss on sale – Lattice Energy[4]	–	–	(10)	(8)
Gain on sale – Javiera solar project	–	–	1	–
Disposals	**21**	**66**	**210**	**(10)**

(1) For the purpose of comparability, the June 2018 period has been restated to exclude $160 million ($112 million post-tax) of premiums relating to certain electricity hedges.
(2) $Nil (pre-tax) (2018: ($35) million (pre-tax)) relates to discontinued operations.
(3) Amounts presented post-tax as the Group equity accounts for its share of net profit after tax of APLNG.
(4) Amounts relating to discontinued operations in the comparative period.

A1 Segments (continued)

	2019		2018	
$m	Gross	Tax and NCI	Gross	Tax and NCI
(b) Disposals, impairments and business restructuring (continued)				
Integrated Gas impairments and impairment reversals				
Impairment – Ironbark permit areas	(49)	15	(514)	154
Impairment reversal – Heytesbury permit areas	13	(4)	–	–
Impairment – Lattice Energy(1)	–	–	(198)	25
Impairment reversal – share of APLNG assets held for sale(2)	–	–	4	–
Impairment – share of APLNG(2)	–	–	(2)	–
Corporate impairments				
Impairment – goodwill and other intangibles on Pleiades investment in Chile	(3)	–	–	–
Impairments	**(39)**	**11**	**(710)**	**179**
One-off building lease exit costs	(19)	6	–	–
Restructuring costs	(29)	8	(18)	7
Restructuring costs – share of APLNG(2)	–	–	(8)	–
Transaction costs – Energy Markets	(9)	3	(8)	4
Transaction costs – Lattice Energy divestment	–	–	(44)	13
De-recognition of tax assets – Lattice Energy divestment(1)	–	–	–	(9)
Finalisation of tax position – Lattice Energy divestment	–	25	–	–
Business restructuring	**(57)**	**42**	**(78)**	**15**
Total disposals, impairments and business restructuring	**(75)**	**119**	**(578)**	**184**

(1) Amounts relating to discontinued operations in the prior year.
(2) Amounts presented post-tax as the Group equity accounts for its share of net profit after tax of APLNG.

A1 Segments (continued)

Segment assets and liabilities as at 30 June

$m	Energy Markets		Integrated Gas Share of APLNG		Integrated Gas Other		Corporate		Total continuing operations		Total assets and liabilities held for sale		Consolidated	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Assets														
Segment assets	12,378	12,447	–	–	276	745	133	156	12,787	13,348	254	–	13,041	13,348
Investments accounted for using the equity method (refer to note B2)	–	–	7,103	6,136	(143)	(148)	–	–	6,960	5,988	–	–	6,960	5,988
Cash, funding related derivatives and tax assets					3,045	3,620	2,697	1,301	5,742	4,921	–	–	5,742	4,921
Total assets	**12,378**	**12,447**	**7,103**	**6,136**	**3,178**	**4,217**	**2,830**	**1,457**	**25,489**	**24,257**	**254**	**–**	**25,743**	**24,257**
Liabilities														
Segment liabilities	(3,299)	(3,205)	–	–	(369)	(695)	(821)	(653)	(4,489)	(4,553)	(23)	–	(4,512)	(4,553)
Financial liabilities, interest-bearing liabilities, funding-related derivatives and tax liabilities							(8,082)	(7,876)	(8,082)	(7,876)	–	–	(8,082)	(7,876)
Total liabilities	**(3,299)**	**(3,205)**	**–**	**–**	**(369)**	**(695)**	**(8,903)**	**(8,529)**	**(12,571)**	**(12,429)**	**(23)**	**–**	**(12,594)**	**(12,429)**
Net assets	**9,079**	**9,242**	**7,103**	**6,136**	**2,809**	**3,522**	**(6,073)**	**(7,072)**	**12,918**	**11,828**	**231**	**–**	**13,149**	**11,828**
Acquisitions of non-current assets (includes capital expenditure)(1)(2)	382	329	–	–	30	107	7	16	419	452	–	68	419	520

(1) The Integrated Gas segment includes $74 million of cash contributions to APLNG in the prior year.
(2) The Energy Markets segment includes $58 million relating to the acquisition of OC Energy Pty Ltd in the current year.

A1 Segments (continued)

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.

	2019 $m	2018 $m
For the year ended 30 June		
Australia	14,612	14,476
Other	115	128
Revenue from continuing operations	**14,727**	**14,604**
Australia	–	198
New Zealand	–	81
Revenue from discontinued operations	**–**	**279**
External revenue	**14,727**	**14,883**
As at 30 June		
Australia	16,053	15,363
Other	33	51
Non-current assets(1)	**16,086**	**15,414**

(1) Excludes amounts that are classified as held for sale at 30 June 2019.

A2 Revenue

2019 $m	Retail	Business and Wholesale	LPG	Solar and Energy	Integrated Gas	Total
Sale of electricity	5,056	3,208	–	216	–	8,480
Sale of gas	1,064	1,862	674	–	434	4,034
Pool revenue	–	2,117	–	–	–	2,117
Other revenue	44	52	–	–	–	96
	6,164	**7,239**	**674**	**216**	**434**	**14,727**
2018(1) $m						
Sale of electricity	5,262	3,311	–	185	–	8,758
Sale of gas	1,097	1,547	654	–	260	3,558
Pool revenue	–	2,177	–	–	–	2,177
Other revenue	29	82	–	–	–	111
	6,388	**7,117**	**654**	**185**	**260**	**14,604**

(1) Excludes amounts classified as discontinued operations.

The Group's primary revenue streams relate to the sale of electricity and natural gas to retail (Consumer and small to medium enterprise), 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
- loss factors

The unbilled consumption volumes are also used by management to accrue network expenses incurred by the Group for unread customer electricity and gas meters.

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 (for example pay on time 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 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 can, in some instances, 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 Power Purchase Agreements. 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.

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

	2019 $m	2018 $m(1)
Other income from continuing operations		
Net gain on sale of assets	–	237
Fees and services	26	16
Other income	**26**	**253**
Interest earned from other parties	8	2
Interest earned on APLNG MRCPS (refer to note B1)	226	227
Interest income(2)	**234**	**229**

(1) Excludes amounts classified as discontinued operations.
(2) Interest income is recognised as it accrues.

A4 Expenses

	2019 $m	2018 $m[1]
Expenses from continuing operations		
Cost of sales	12,130	11,834
Employee expenses[2]	664	648
Depreciation and amortisation	419	381
Impairment of non-current assets[3]	39	514
Impairment of trade receivables (net of bad debts recovered)	84	88
Decrease in fair value of derivatives	102	418
(Increase)/decrease in fair value of other financial assets/liabilities	(391)	11
Net foreign exchange loss/(gain)	89	(44)
Other[4]	817	739
Expenses	**13,953**	**14,589**
Interest on interest-bearing liabilities	385	496
Unwind of discounting on long-term provisions	3	4
Interest expense	**388**	**500**
Financing costs capitalised	–	1

(1) Excludes amounts classified as discontinued operations. For the purpose of comparability certain amounts have been restated in relation to premiums relating to certain electricity hedges to conform with current year presentation.

(2) Includes contributions to defined contribution superannuation funds from continuing operations of $61 million (2018: $65 million).

(3) Included in the current period is a $49 million (tax benefit $15 million) impairment of the Ironbark permit areas and a $3 million (tax benefit $nil) impairment of goodwill and other intangibles on the Pleiades investment in Chile. There is also a $13 million (tax expense $4 million) reversal of the previous impairment of Heytesbury permit assets, following classification to held for sale at 31 December 2018. The Ironbark impairment in the current period is based on the sale price achieved. The comparative period amount included Ironbark impairments of $514 million (tax benefit $154 million) based on the estimated value of the permit areas at that time.

(4) Includes operating lease rental expense of $81 million (2018: $119 million).

A5 Earnings per share

	2019	2018
Weighted average number of shares on issue – basic(1)	1,758,935,655	1,757,442,268
Weighted average number of shares on issue – diluted(2)	1,762,450,733	1,765,715,232
STATUTORY PROFIT/(LOSS)		
Earnings per share based on statutory consolidated profit/(loss)		
Statutory profit/(loss) – $m	1,211	218
Basic earnings per share	68.8 cents	12.4 cents
Diluted earnings per share	68.7 cents	12.3 cents
Continuing operations		
Statutory profit/(loss) – $m	1,211	280
Basic earnings per share	68.8 cents	15.9 cents
Diluted earnings per share	68.7 cents	15.9 cents
Discontinued operations		
Statutory profit/(loss) – $m	–	(62)
Basic earnings per share	–	(3.5) cents
Diluted earnings per share	–	(3.5) cents
UNDERLYING PROFIT/(LOSS)		
Earnings per share based on underlying consolidated profit		
Underlying profit – $m(3),(4)	1,028	910
Underlying basic earnings per share(4)	58.4 cents	51.8 cents
Underlying diluted earnings per share(4)	58.3 cents	51.5 cents
Continuing operations		
Underlying profit – $m(3),(4)	1,028	726
Underlying basic earnings per share(4)	58.4 cents	41.3 cents
Discontinued operations		
Underlying profit – $m(3)	–	184
Underlying basic earnings per share	–	10.5 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 which would be issued if outstanding options, performance share rights and deferred shares rights were to be exercised (2019: 3,515,078; 2018: 8,272,964).

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

(4) For the purpose of comparability, the June 2018 period has been restated to include $160 million ($112 million post-tax) of premiums relating to certain electricity hedges within underlying earnings. As a result, underlying earnings per share have also been restated.

A6 Dividends

The Directors have determined to pay a final dividend of 15 cents per share, fully franked at 30 per cent, payable on 27 September 2019. Dividends paid during the year ended 30 June are detailed below.

	2019 $m	2018 $m
Nil final dividend (2018: Nil final dividend)	–	–
Interim dividend of 10 cents per share, fully franked at 30 per cent, paid 29 March 2019 (2018: Nil interim dividend)	176	–
Total dividends provided for or paid	**176**	**–**
Dividend franking account		
Franking credits available to shareholders of Origin Energy Limited for subsequent financial years are shown below.		
Australian franking credits available at 30 per cent	205	116
New Zealand franking credits available at 28 per cent (in NZD)	304	304

B Investment in Australia Pacific LNG Pty Ltd

This section provides information on the Group's equity accounted investment in Australia Pacific LNG Pty Ltd (APLNG).

B1 Summary APLNG income statement

	2019		2018	
$m	Total APLNG	Origin interest	Total APLNG	Origin interest
Operating revenue	7,491		5,528	
Operating expenses	(1,781)		(1,811)	
Impairment reversal – assets held for sale	–		16	
Impairment expense	–		(8)	
EBITDA	**5,710**	**2,142**	**3,725**	**1,397**
Depreciation and amortisation expense	(2,116)	(794)	(1,853)	(695)
Interest income	51	19	17	6
Interest expense – MRCPS	(602)	(226)	(605)	(227)
Other interest expense	(662)	(248)	(532)	(200)
Income tax expense	(711)	(267)	(216)	(80)
ITDA	**(4,040)**	**(1,516)**	**(3,189)**	**(1,196)**
Statutory result for the period	**1,670**	**626**	**536**	**201**
Other comprehensive income	–	–	–	–
Statutory total comprehensive income(1)	**1,670**	**626**	**536**	**201**
Items excluded from segment result				
Gain on sale of assets – Denison	35	13	–	–
Impairment reversal – assets held for sale	–	–	11	4
Impairment expense	–	–	(5)	(2)
Restructuring costs	–	–	(21)	(8)
Items excluded from segment result (net of tax)	**35**	**13**	**(15)**	**(6)**
Underlying profit for the period	**1,635**	**613**	**551**	**207**
Underlying EBITDA for the period	**5,662**	**2,123**	**3,746**	**1,405**

(1) Excluded from the above is $6 million (2018: $4 million) (Origin share) relating to an MRCPS depreciation elimination for amounts that have already been reflected in Origin's income statement in prior years. This adjustment is disclosed under the 'Other – Integrated Gas' segment on the 'share of ITDA of equity accounted investees' line in note A1. Taking this amount into account results in a total 'results of equity accounted investees' amount of $632 million as detailed in the income statement.

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

B2 Summary APLNG statement of financial position

100 per cent APLNG $m	**2019**	**2018**
Cash and cash equivalents	1,610	1,223
Assets classified as held for sale	5	65
Other assets	644	607
Current assets	**2,259**	**1,895**
Receivables from shareholders	375	394
Property, plant and equipment	35,971	34,865
Exploration, evaluation and development assets	326	256
Other assets	1,641	2,282
Non-current assets	**38,313**	**37,797**
Total assets	**40,572**	**39,692**
Bank loans – secured	673	872
Payable to shareholders (MRCPS)	91	98
Liabilities classified as held for sale	–	76
Other liabilities	761	841
Current liabilities	**1,525**	**1,887**
Bank loans – secured	9,084	9,077
Payable to shareholders (MRCPS)	8,078	9,556
Other liabilities	2,946	2,810
Non-current liabilities	**20,108**	**21,443**
Total liabilities	**21,633**	**23,330**
Net assets	**18,939**	**16,362**
Group's interest of 37.5 per cent of APLNG net assets	7,103	6,136
Group's own costs	25	25
MRCPS elimination[1]	(168)	(173)
Investment in APLNG Pty Ltd	**6,960**	**5,988**

(1) 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 which 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 as this has previously been recorded in Origin's income statement.

Reporting date balances are converted from USD to AUD using an end of period exchange rate of 0.7012 (2018: 0.7384).

Following a change in legislation in the current period to remove onshore projects from the Petroleum Resource Rent Tax (PRRT) regime, APLNG no longer has an unrecognised deferred tax asset balance (2018: $6,220 million).

B3 Summary APLNG statement of cash flows

100 per cent APLNG $m	2019	2018
Cash flow from operating activities		
Cash receipts from customers	7,538	5,662
Cash paid to suppliers and employees	(2,002)	(1,738)
Net cash from operating activities	**5,536**	**3,924**
Cash flows from investing activities		
Loan repaid by/(advanced to) Origin	31	(76)
Loans repaid by other shareholders	9	33
Proceeds from sale of assets	30	–
Acquisition of property, plant and equipment	(1,321)	(1,269)
Acquisition of exploration and development assets	(57)	(26)
Other investing activities	50	16
Net cash used in investing activities	**(1,258)**	**(1,322)**
Cash flows from financing activities		
Payments of other financing activities	(85)	(70)
Proceeds from borrowings	6,346	–
Repayment of borrowings	(7,154)	(915)
Payments of transaction and interest costs relating to borrowings	(513)	(418)
Payments for buy-back of MRCPS	(1,987)	(360)
Payments of interest on MRCPS	(611)	(603)
Proceeds received from Shareholders' capital contributions	–	198
Net cash used in financing activities	**(4,004)**	**(2,168)**
Net increase in cash and cash equivalents	**274**	**434**
Cash and cash equivalents at the beginning of the year	**1,223**	**748**
Effect of exchange rate changes on cash	113	41
Cash and cash equivalents at the end of the year	**1,610**	**1,223**

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.

B4 Transactions between the Group and 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 (2019: $475 million; 2018: $476 million), and sell gas, to APLNG (2019: $69 million; 2018: $118 million). At 30 June 2019, the Group's outstanding payable balance for purchases from APLNG was $45 million (2018: $56 million) and outstanding receivable balance for sales to APLNG was $3 million (2018: $7 million).

Funding transactions

The Group has invested in USD 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 annum and recognised as interest income (refer note A3). During the year Origin's share of the MRCPS balance reduced to US$2.1 billion following APLNG share buy-backs of US$0.5 billion. 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 C6. The carrying value was $3,045 million as at 30 June 2019 (2018: $3,620 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.

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 which are due from the Group's customers and other parties.

	2019 $m	2018 $m
Current		
Trade receivables net of allowance for impairment	735	888
Unbilled revenue net of allowance for impairment	1,226	1,288
Other receivables	363	361
	2,324	**2,537**
Non-current		
Trade receivables	7	4
	7	**4**

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) reflect 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.

The average age of trade receivables is 21 days (2018: 21 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.

C1 Trade and other receivables (continued)

	2019		2018	
$m	**Gross**	**Impairment allowance**	**Gross**	**Impairment allowance**
Unbilled revenue	1,233	(7)	1,289	(1)
Not yet due	497	(7)	598	(6)
Less than 30 days	102	(7)	146	(6)
31–60 days past due	65	(7)	68	(7)
61–90 days past due	32	(9)	31	(6)
Greater than 91 days	167	(98)	158	(88)
	2,096	**(135)**	**2,290**	**(114)**

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

	2019	2018
Balance as at 1 July	114	110
Adoption of AASB 9 (refer Overview)	21	–
Impairment losses recognised	84	88
Amounts written off	(84)	(84)
Balance as at 30 June	**135**	**114**

C2 Exploration and evaluation assets

	Exploration and evaluation assets	
	2019 $m	**2018 $m**
Balance as at 1 July	363	858
Additions	33	19
Exploration expense – continuing operations	(2)	(3)
Exploration expense – discontinued operations	–	(5)
Net impairment loss[1]	(49)	(506)
Transfers to held for sale[2]	(247)	–
Balance as at 30 June	**98**	**363**

(1) Reflects impairment of the Ironbark permit areas of $49 million (tax benefit $15 million) (2018: Ironbark impairment of $514 million (tax benefit $154 million), of which $506 million relates to exploration and evaluation assets).

(2) The closing balance excludes $247 million in relation to Ironbark permit areas.

C2 Exploration and evaluation assets (continued)

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, drill exploratory wells and evaluate 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;
- 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	Plant and equipment	Land and buildings	Capital work in progress	Total
2019(1)				
Cost	5,447	204	188	5,839
Accumulated depreciation	(2,179)	(63)	–	(2,242)
	3,268	**141**	**188**	**3,597**
Balance as at 1 July 2018	3,284	149	263	3,696
Additions	122	–	96	218
Additions through acquisition of entities	21	–	–	21
Depreciation/amortisation	(289)	(2)	–	(291)
Impairment reversal(2)	13	–	–	13
Transfers within PP&E	148	–	(148)	–
Transfers to intangibles	(3)	–	(23)	(26)
Transfers to held for sale	(29)	(6)	–	(35)
Effect of movements in foreign exchange rates	1	–	–	1
Balance as at 30 June 2019	**3,268**	**141**	**188**	**3,597**
2018(1)				
Cost	5,185	210	263	5,658
Accumulated depreciation	(1,901)	(61)	–	(1,962)
	3,284	**149**	**263**	**3,696**
Balance as at 1 July 2017	3,353	156	205	3,714
Additions	230	15	72	317
Disposals	(19)	(15)	–	(34)
Depreciation/amortisation – continuing operations	(256)	(7)	–	(263)
Net impairment loss(3)	(8)	–	–	(8)
Transfers from inventory	17	–	–	17
Transfers within PP&E	14	–	(14)	–
Transfers to intangibles	(48)	–	–	(48)
Effect of movements in foreign exchange rates	1	–	–	1
Balance as at 30 June 2018	**3,284**	**149**	**263**	**3,696**

(1) Amounts previously disclosed as Generation PP&E have been reclassified into the plant and equipment and land and buildings categories to simplify the disclosure following the sale of Lattice Energy in the prior period.

(2) Reversal of the Heytesbury impairment of $13 million (tax expense $4 million).

(3) Reflects impairment of the Ironbark permit areas of $514 million (tax benefit $154 million), of which $8 million relates to 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.

C3 Property, plant and equipment (continued)

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 the 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

At 30 June 2019, the Group reassessed the carrying amounts of its non-current assets for indicators of impairment.

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 most sensitive to those assumptions highlighted in the key judgements and estimates below.

Key judgements and estimates

Recoverability of carrying values: Assets are grouped together into the smallest group of individual assets that generate largely independent cash inflows (cash generating unit). A cash generating unit's (CGU) recoverable amount comprises the present value of the future cash flows that will arise from use of the assets. Assessment of a CGU's recoverable amount requires estimates and assumptions to be made about highly uncertain external factors such as future commodity prices, foreign exchange rates, discount rates, regulatory policies and the outlook for global or regional market supply-and-demand conditions. Such estimates and assumptions may change as new information becomes available. If it is concluded that the carrying value of a CGU is not likely to be recovered by use or sale, the relevant amount will be written off to the income statement.

Estimation of commodity prices: 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. Future commodity price assumptions impact the recoverability of carrying values and are reviewed at least annually.

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 C5 for a judgement related to restoration provisions.

C4 Intangible assets

	2019 $m	2018 $m
Goodwill	4,818	4,820
Software and other intangible assets	1,407	1,303
Accumulated amortisation	(844)	(795)
	5,381	**5,328**

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 2018	**4,820**	**508**	**5,328**
Additions	–	119	119
Additions through acquisition of entities	–	43	43
Transfers from PP&E	–	26	26
Disposals	–	(4)	(4)
Net impairment loss(1)	(2)	(1)	(3)
Amortisation expense	–	(128)	(128)
Balance as at 30 June 2019	**4,818**	**563**	**5,381**
Balance as at 1 July 2017	**4,827**	**498**	**5,325**
Additions	–	91	91
Transfers from PP&E	–	48	48
Disposals	–	(10)	(10)
Net impairment loss(2)	(7)	(1)	(8)
Amortisation expense – continuing operations	–	(118)	(118)
Balance as at 30 June 2018	**4,820**	**508**	**5,328**

(1) Impairment of goodwill and other intangibles on Pleiades investment in Chile.
(2) Amounts relating to discontinued operations.

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 11% (2018: 12%).

C4 Intangible assets (continued)

Key judgements and estimates

All goodwill of the Group is allocated to the Energy Markets segment. The recoverable amount of the Energy Markets goodwill has been determined using a value-in-use model that includes an appropriate terminal value. The value-in-use calculation is 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. Management do not believe that any reasonably possible change in these assumptions would result in an impairment. More information about the key inputs and assumptions in the value-in-use calculation are set out below.

Key input assumptions	Energy Markets
Long-term growth rates	Cash flows are projected for either 40 years, or the life of each Generation asset, based on the Group's five-year business plan. The Energy Markets business is considered a long-term business and as such projection of long-term cash flows is appropriate for a more accurate forecast. The growth rate used to extrapolate cash flow projections beyond the five-year plan averages 2.5 per cent.
Customer numbers	Based on 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 costs	Based on review of actual gross margins and cost per customer, and consideration of current and expected market movements and impacts.
Discount rate	Pre-tax discount rate of 9.7 per cent (2018: 10.3 per cent).

C5 Provisions

$m	Restoration	Other	Total
Balance as at 1 July 2018	**271**	**143**	**414**
Provisions recognised	209	33	242
Provisions released	(29)	(10)	(39)
Payments/utilisation	(3)	(22)	(25)
Impact of discounting	3	–	3
Transfers to held for sale(1)	(23)	–	(23)
Balance as at 30 June 2019	**428**	**144**	**572**
Current	15	30	45
Non-current	413	114	527
	428	**144**	**572**

(1) The closing balance excludes $23 million in relation to restoration obligations for the Ironbark permit areas.

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.

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 is expensed in the current period.

The unwinding of the discount is recognised in each period as interest expense.

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.

C6 Other financial assets and liabilities

The Group has applied AASB 9 *Financial Instruments* (AASB 9) from 1 July 2018 as discussed in the Overview section. Under the transition methods chosen, comparative information is not restated.

	2019		2018[1]	
$m	**Current**	**Non-current**	**Current**	**Non-current**
Other financial assets				
Measured at fair value through profit or loss				
MRCPS issued by APLNG	34	3,011	Not applicable prior to adoption of AASB 9	
Settlement Residue Distribution Agreement units	24	30		
Environmental scheme certificates	244	–		
Investment fund units	–	57		
Measured at fair value through other comprehensive income				
Equity securities[2]	–	54		
Measured at amortised cost				
Futures collateral	16	–		
Previous disclosure under AASB 139				
MRCPS issued by APLNG			37	3,583
Environmental scheme certificates			153	–
Available-for-sale financial assets			18	100
Futures collateral			59	–
	318	**3,152**	**267**	**3,683**
Other financial liabilities				
Measured at fair value through profit or loss				
Environmental scheme surrender obligations	241	–	304	–
Measured at amortised cost				
Futures collateral	67	–	–	–
	308	**–**	**304**	**–**

(1) Refer to Overview for a discussion of reclassifications.

(2) The Group has elected to present changes in the fair value of its investments in equity securities through other comprehensive income because they are held for strategic purposes and are not expected to be sold in the short to medium term.

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 objectives when managing capital are to make disciplined capital allocation decisions between debt reduction, reinvestment and distributions to shareholders and maintain an optimal structure that minimises the cost of capital. A strong investment grade credit rating (BBB/Baa2) and an appropriate level of net debt are required to meet these objectives. The Group's current credit rating is BBB (stable outlook) from S&P, and 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, maturity profile of existing debt facilities, 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 25%–30%) and an adjusted net debt to adjusted underlying EBITDA ratio (target range of 2.5x – 3.0x). These targets are consistent with attaining a strong investment grade rating.

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 (Origin underlying EBITDA less Origin's share of APLNG underlying EBITDA plus net cash flow from APLNG) over the relevant 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.

	2019 $m	2018 $m
Total interest-bearing liabilities	7,596	7,439
Less: Cash and cash equivalents excluding APLNG related cash[1]	(1,512)	(117)
Net debt	6,084	7,322
Fair value adjustments on FX hedging transactions	(667)	(793)
Adjusted net debt	5,417	6,529
Total equity	13,149	11,828
Total capital	18,566	18,357
Gearing ratio	29%	36%
Ratio of adjusted net debt to adjusted underlying EBITDA	2.6x	3.7x

(1) This balance excludes $34 million (2018: $33 million) of cash held by Origin, as Upstream Operator, to fund APLNG related operations.

D2 Interest-bearing liabilities

	2019 $m	2018 $m
Current		
Bank loans – unsecured	–	7
Capital market borrowings – unsecured	947	1,081
Total current borrowings	**947**	**1,088**
Lease liabilities – secured	1	1
Total current interest-bearing liabilities	**948**	**1,089**
Non-current		
Bank loans – unsecured	525	220
Capital market borrowings – unsecured(1)	6,117	6,124
Total non-current borrowings	**6,642**	**6,344**
Lease liabilities – secured	6	6
Total non-current interest-bearing liabilities	**6,648**	**6,350**

(1) Includes €1 billion Capital Securities to be redeemed at their first call date of 16 September 2019 as announced on 26 July 2019 (refer note G12).

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 with any gains or losses recognised in the income statement.

The contractual maturities of non-current borrowings are as set out below.

	2019 $m	2018 $m
One to two years	1,325	915
Two to five years	2,405	3,742
Over five years	2,912	1,687
Total non-current borrowings	**6,642**	**6,344**
Lease liabilities	6	6
Total non-current interest-bearing liabilities	**6,648**	**6,350**

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 2019, these terms had not been triggered.

Significant funding transactions

Repayment of US144A US$800 million debt

Origin repaid the US144A US$800 million (A$1,123 million) debt on its 9 October 2018 maturity date. The debt had been swapped to AUD resulting in a net settlement of A$853 million. The repayment had a neutral impact on Adjusted Net Debt as the settlement was refinanced with cash flows from operating activities and draw-downs on medium-term bank debt.

New debt facilities raised during the year

- US$525 million (A$749 million) via US Private Placements maturing in 2029. This facility has not been swapped back to AUD because it economically hedges Origin's exposure to USD arising from its investment in APLNG; and
- A$526 million and US$20 million (A$29 million) via a term loan facility maturing in 2026.

D3 Contributed equity

	2019	2018	2019	2018
	Number of shares		$m	
Ordinary share capital				
Opening balance	1,759,156,516	1,755,333,517	7,150	7,150
Shares issued in accordance with the Dividend Reinvestment Plan	1,769,296	–	13	–
Shares issued in accordance with Incentive Plans	285,259	3,822,999	–	–
	1,761,211,071	1,759,156,516	7,163	7,150
Less Treasury shares:				
Opening balance	–	–	–	–
Shares purchased on-market	(9,611,526)	–	(77)	–
Utilisation of treasury shares on vesting of employee share schemes	4,801,909	–	39	–
	(4,809,617)	–	(38)	–
Closing balance	**1,756,401,454**	**1,759,156,516**	**7,125**	**7,150**

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. 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 and interest rates 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 and allocates credit limits to counterparties based on publicly available credit information from recognised providers where available.	Notes C1, C6 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 Derivatives Association (ISDA) agreements to limit exposure to credit risk through the netting of amounts receivable from and payable to individual counterparties (refer 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, including active hedging of price and volume exposures within prescribed 'Profit at Risk' and 'Value at Risk' limits.	Refer 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 (e.g. fixed-price purchase contracts) and derivative instruments (described below).
Foreign exchange	Foreign currency 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 currency 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 whose value is 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 listed below to mitigate market risk.

Forwards	A contract documenting the underlying reference rate (e.g. benchmark price, exchange rate) to be paid/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 (e.g. 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.
PPAs	A contract in which two parties agree to settle the difference between a fixed price and the spot electricity price (similar to a swap). Typically these contracts are long-term and either include a fixed notional electricity volume or reference the output of a specific generation asset.

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 $107 million loss for the year ended 30 June 2019 (2018: $563 million loss, which included a $35 million loss related to discontinued operations). Fair value gains and losses attributable to accounting hedges are discussed in the Hedge Accounting section.

D4 Financial risk management (continued)

$m	Assets Current	Assets Non-current	Liabilities Current	Liabilities Non-current
2019				
Economic hedges				
Commodity contracts	69	315	(220)	(848)
Foreign exchange and interest rate contracts	6	–	(107)	(219)
	75	**315**	**(327)**	**(1,067)**
Accounting hedges				
Commodity contracts	160	119	(57)	(52)
Foreign exchange and interest rate contracts	237	528	–	–
	397	**647**	**(57)**	**(52)**
Derivatives	**472**	**962**	**(384)**	**(1,119)**
2018				
Economic hedges				
Commodity contracts	210	329	(325)	(829)
Foreign exchange and interest rate contracts	1	–	–	(320)
	210	**329**	**(325)**	**(1,149)**
Accounting hedges				
Commodity contracts	82	146	(99)	(83)
Foreign exchange and interest rate contracts	230	642	–	(2)
	312	**788**	**(99)**	**(85)**
Derivatives	**522**	**1,117**	**(424)**	**(1,234)**

Hedge accounting

The Group currently utilises 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: – 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 or is sold, 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

D4 Financial risk management (continued)

Hedge accounting (continued)

Set out below are the fair values of derivatives designated in hedge accounting relationships at reporting date.

2019	Assets		Liabilities	
$m	**Current**	**Non-current**	**Current**	**Non-current**
Fair value hedges	–	475	–	–
Cash flow hedges	397	172	(57)	(52)
Accounting hedges	**397**	**647**	**(57)**	**(52)**

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 1,550m
Hedge rates	AUD/EUR 0.69–0.79; BBSW
Timing of cash flows	Up to Oct-21

Carrying amounts	$m
Hedging instrument(1)	475
Hedged debt(2)	(2,588)
Fair value increase/(decrease)	**$m**
Hedging instrument	59
Hedged debt	(59)
Hedge ineffectiveness(3)	–

(1) Hedging instruments are located within Derivatives on the statement of financial position.
(2) Hedged items are located within Interest-bearing liabilities on the statement of financial position. Included in this value are $76 million of accumulated fair value hedge adjustments.
(3) Hedge ineffectiveness is recognised within expenses in the income statement.

D4 Financial risk management (continued)

Hedge accounting (continued)

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 PPAs, whilst important to the overall risk management strategy, do not qualify for hedge accounting. As such, they are not represented in the summary information below.

2019	FX & interest	FX & interest	Electricity	Crude oil	Propane
Nominal hedge volumes	EUR 1,150m	NZD 141m	9.9 TWh	780k barrels	110k mt
Hedge rates	AUD/EUR 0.72–0.81; Fixed 6.6%–7.9%	AUD/NZD 1.12; BBSW	$46–$145	US$51–US$80	US$340–US$523
Timing of cash flows	Up to Apr-23	Up to Jun-20	Up to Jun-22	Up to Oct-22	Up to Dec-21

Carrying amounts – $m	FX & interest	Electricity	Crude oil	Propane	Total
Hedging instrument(1) – assets	290	213	65	1	569
Hedging instrument(1) – liabilities	–	(45)	(55)	(9)	(109)
Hedge reserve(2)	16	(168)	(22)	8	(166)
Fair value increase/(decrease) – $m					
Hedging instrument	63	294	(26)	(11)	320
Hedged item	(61)	(294)	28	11	(316)
Hedge ineffectiveness(3)	**2**	**–**	**2**	**–**	**4**
Reconciliation of hedge reserve – $m					
Effective portion of hedge gains/(losses)	61	294	(26)	(11)	318
Transfer of deferred losses/(gains) to:					
– Revenue	–	–	29	–	29
– Cost of sales	–	(123)	(9)	(11)	(143)
– Finance costs	3	–	–	–	3
– Foreign exchange	(61)	–	–	–	(61)
Tax on above items	(1)	(51)	–	7	(45)
Change in hedge reserve (post-tax)	**2**	**120**	**(6)**	**(15)**	**101**

(1) Hedging instruments are located within Derivatives 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	– MRCPS financial asset – USD debt – Euro debt and related USD CCIRSs – FX and commodity derivatives with USD pricing	A 10 per cent increase/decrease in the USD exchange rate would decrease/increase fair value by $102 million (June 2018: $160 million).
Euro exchange rate	– Currency basis on the CCIRSs swapping Euro debt to AUD	A 10 per cent increase/decrease in the Euro exchange rate would decrease/increase fair value by $22 million (June 2018: $26 million).
Interest rates	– 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 ($14)/$11 million (June 2018: ($10)/$3 million).
Electricity forward price	– Commodity derivatives including structured electricity products and PPAs	A 10 per cent increase/decrease in electricity forward prices would increase/decrease fair value by $264 million (June 2018: $294 million).
Oil forward price	– Commodity derivatives	A 10 per cent increase/decrease in oil forward prices would decrease/increase fair value by $3 million (June 2018: $18 million).
Renewable Energy Certificates (REC) forward price	– 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 $16 million (June 2018: $33 million).

D4 Financial risk management (continued)

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.

2019 $m	**Less than one year**	**One to two years**	**Two to five years**	**Over five years**
Bank loans and capital markets borrowings[1]	(2,692)	(1,526)	(2,724)	(1,508)
Lease liabilities	(1)	(1)	(4)	(4)
Net other financial assets/liabilities	1,321	1,194	1,287	–
	(1,372)	**(333)**	**(1,441)**	**(1,512)**
Derivative liabilities	(582)	(360)	(233)	(471)
Derivative assets	708	518	459	304
	126	**158**	**226**	**(167)**
Net liquidity exposure	**(1,246)**	**(175)**	**(1,215)**	**(1,679)**
Cash and committed undrawn floating rate borrowing facilities expiring beyond 1 year	**5,335**			

2018 $m	**Less than one year**	**One to two years**	**Two to five years**	**Over five years**
Bank loans and capital markets borrowings[1]	(1,084)	(2,511)	(4,072)	(179)
Lease liabilities	(1)	(1)	(4)	(6)
Net other financial assets/liabilities	1,426	1,005	2,172	–
	341	**(1,507)**	**(1,904)**	**(185)**
Derivative liabilities	(500)	(385)	(419)	(216)
Derivative assets	601	497	588	257
	101	**112**	**169**	**41**
Net liquidity exposure	**442**	**(1,395)**	**(1,735)**	**(144)**
Cash and committed undrawn floating rate borrowing facilities expiring beyond one year	**3,624**			

(1) All facilities are deemed to be repaid at the earlier of their contractual maturity date or first call/intended repayment date.

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 renewable energy certificates) 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 which 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.

2019	**Note**	**Level 1 $m**	**Level 2 $m**	**Level 3 $m**	**Total $m**
Derivative financial assets	D4	131	1,088	215	1,434
Other financial assets at fair value	C6	298	57	3,099	3,454
Financial assets carried at fair value		**429**	**1,145**	**3,314**	**4,888**
Derivative financial liabilities	D4	(30)	(763)	(710)	(1,503)
Other financial liabilities at fair value	C6	(241)	–	–	(241)
Financial liabilities carried at fair value		**(271)**	**(763)**	**(710)**	**(1,744)**

2018	**Note**	**Level 1 $m**	**Level 2 $m**	**Level 3 $m**	**Total $m**
Derivative financial assets	D4	21	1,388	230	1,639
Environmental scheme certificates	C6	153	–	–	153
Available-for-sale financial assets	C6	103	15	–	118
Financial assets carried at fair value		**277**	**1,403**	**230**	**1,910**
Derivative financial liabilities	D4	(15)	(988)	(655)	(1,658)
Environmental scheme surrender obligations	C6	(304)	–	–	(304)
Financial liabilities carried at fair value		**(319)**	**(988)**	**(655)**	**(1,962)**

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 2018	**(425)**
Impact of AASB 9 – MRCPS	3,465
New instruments	49
Net cash settlements paid/(received)	(1,121)
Gains/(losses) recognised in OCI	6
Gains/(losses) recognised in profit or loss:	
– Change in fair value	278
– Cost of sales	126
– Interest income	226
Balance as at 30 June 2019	**2,604**

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 which are supported by independent and observable market data. For instruments that settle greater than 12 months from 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 cross currency interest rate swaps	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 renewable energy certificate prices – Contract volumes – Generation operating costs	A 10 per cent increase/decrease in the unobservable inputs would increase/decrease fair value by $299 million (June 2018: $327 million).
Oil derivatives	– Forward Japanese Customs-cleared Crude (JCC) price curve	A 10 per cent increase/decrease in the JCC price would decrease/increase fair value by $15 million (June 2018: $1 million).
MRCPS issued by APLNG	– Forecast Australia Pacific LNG free cash flows	A 10 per cent increase/decrease in APLNG forecast cash flows would impact fair value by $3/($4) million.

(1) Excludes $54 million of unlisted equity securities for which management have assessed the investment cost to be a reasonable reflection of fair value at reporting date.

D5 Fair value of financial assets and liabilities (continued)

Day 1 fair value adjustments

For certain complex financial instruments, such as the structured electricity products and PPAs, the fair value that is determined at inception of the contract 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 2018	723
Value recognised in the income statement	(82)
New derivatives recognised	7
Derivatives derecognised in the period	(75)
Balance as at 30 June 2019	**573**
Location of net deferred gain	
Derivative assets	317
Derivative liabilities	256
Balance as at 30 June 2019	**573**

Financial instruments measured at amortised cost

Except as noted below, the carrying amounts of financial assets and liabilities measured at amortised cost are reasonable approximations of their fair values.

		Carrying value		Fair value	
	Fair value hierarchy level	**2019 $m**	**2018 $m**	**2019 $m**	**2018 $m**
Assets					
Other financial assets – MRCPS[1]	3	–	3,583	–	3,428
Liabilities					
Bank loans – unsecured	2	525	220	559	244
Capital markets borrowings – unsecured	2	6,117	6,124	6,392	6,387
		6,642	**6,344**	**6,951**	**6,631**

(1) From 1 July 2018 the MRCPS issued by APLNG are carried at fair value and no longer measured at amortised cost.

The fair value of these financial instruments reflect 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 and deferred tax balances and the Group's tax accounting policies.

E1 Income tax expense

	2019 $m	2018 $m
Income tax		
Current tax expense	180	174
Deferred tax benefit	(95)	(195)
(Over)/under provided in prior years	(21)	1
Total income tax expense/(benefit)	**64**	**(20)**
Income tax expense/(benefit) attributable to:		
Profit from continuing operations	64	(81)
Profit/(loss) from discontinued operations	–	61
	64	**(20)**
Reconciliation between tax expense and pre-tax net profit		
Profit from continuing operations before income tax	1,278	202
Loss from discontinued operations	–	(1)
	1,278	**201**
Income tax using the domestic corporation tax rate of 30 per cent (2018: 30 per cent)		
Prima facie income tax expense on pre-tax accounting profit:		
– at Australian tax rate of 30 per cent	383	60
– adjustment for tax exempt charity (Origin Foundation Limited)	–	(17)
– adjustment for difference between Australian and overseas tax rates	(1)	(2)
Income tax expense on pre-tax accounting profit at standard rates	**382**	**41**
Increase/(decrease) in income tax expense due to:		
Lattice disposal	–	55
Acumen disposal	–	(72)
Entity wind-up	–	9
Capital loss recognition	(68)	–
Share of results of equity accounted investees	(188)	(60)
Temporary differences no longer expected to be realised	(29)	–
Other	(12)	6
	(297)	**(62)**
(Over)/under provided in prior years	(21)	1
Total income tax expense/(benefit)	**64**	**(20)**
Deferred tax movements recognised directly in other comprehensive income (including foreign currency translation)		
Financial instruments at fair value	45	(51)
Property, plant and equipment	–	5
Provisions	–	(1)
	45	**(47)**

E1 Income tax expense (continued)

The Company and its wholly owned Australian resident entities, which met the membership requirements, 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.

Key judgements

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.

PRRT: From 1 July 2019 PRRT applies only to offshore Australian oil and gas projects. The application of PRRT legislation involves significant judgement around the taxing point of projects and the transfer price used for determining PRRT income. In assessing the recoverability of deferred tax assets, estimates are required in respect of future augmentation (escalation) of expenditure, the sequence in which current and future deductible amounts are expected to be utilised, and the probable cash flows used in determining the recoverability of deferred tax assets.

Income tax expense recognised in other comprehensive income

	2019			2018		
$m	**Gross**	**Tax**	**Net**	**Gross**	**Tax**	**Net**
Investment valuation changes	5	–	5	(10)	4	(6)
Cash flow hedges:						
Reclassified to income statement	(172)	50	(122)	(107)	32	(75)
Effective portion of change in fair value	318	(95)	223	(46)	15	(31)
Translation of foreign operations	341	–	341	278	–	278
Other comprehensive income for the year	**492**	**(45)**	**447**	**115**	**51**	**166**

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 for the following:

- 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;
- where 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
- where 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.

Movement in temporary differences during the year

Asset/(liability)	1 July 2017	Recognised in income	Recognised in equity	30 June 2018	Adoption of AASB 9	Recognised in income	Recognised in equity	30 June 2019
$m								
Employee benefits	62	(1)	–	61	–	4	–	65
Provisions	101	44	1	146	6	56	–	208
Tax value of carry-forward tax losses recognised	9	(9)	–	–	–	1	–	1
Property, plant and equipment	(420)	8	(5)	(417)	–	11	–	(406)
Exploration and evaluation assets	(85)	136	–	51	–	69	–	120
Financial instruments at fair value	248	10	51	309	47	(26)	(45)	285
APLNG MRCPS elimination (refer note B1)	53	(1)	–	52	–	(2)	–	50
Business-related costs (deductible under s.40-880 ITAA97)	23	30	–	53	–	(10)	–	43
Other items	44	(22)	–	22	–	(8)	–	14
Net deferred tax assets	**35**	195	47	**277**	**53**	95	(45)	**380**

E2 Deferred tax (continued)

Unrecognised deferred tax assets and liabilities	2019 $m	2018 $m
Deferred tax assets have not been recognised in respect of the following items:		
Revenue losses – non-Australian	32	42
Capital losses	213	280
PRRT, net of income tax(1)	131	690
Acquisition transaction costs	57	57
Investment in joint ventures	67	67
Intangible assets	8	8
	508	**1,144**
Deferred tax liabilities have not been recognised in respect of the following items:		
Investment in APLNG(2)	(1,611)	(1,320)
	(1,611)	**(1,320)**

(1) PRRT is considered, for accounting purposes, to be a tax based on income under AASB 112 *Income Taxes*. Accordingly, any current and deferred PRRT expense is measured and disclosed on the same basis as income tax. The application of PRRT legislation relies on a forecast of future years expenditure in order to determine whether the utilisation of the PRRT base will be required. As the forecast indicates that no utilisation is required, no deferred tax asset has been recognised with respect to PRRT in these financial statements. The decrease of $559 million for this item is primarily due to the removal of onshore projects (i.e. Ironbark and Beetaloo) from the PRRT regime as a result of legislative changes with effect from 1 July 2019.

(2) A deferred tax liability has not been recorded in respect of the investment in APLNG as the Group is able to control the timing of the reversal of the temporary difference through its voting rights and it is not expected that the temporary difference will reverse in the foreseeable future. It is possible that the temporary difference could reverse partly or in full at some point in the future, if and when unfranked dividends or capital returns are expected to be paid, or if the investment is expected to be disposed of.

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, controlled entities, transactions with non-controlling interests and changes made to the Group structure during the year.

F1 Joint arrangements

Joint arrangements are those entities over whose activities the Group has joint control, established by contractual agreement and require 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.

Interests in joint ventures

Interests in joint ventures are initially recognised at cost and are subsequently adjusted for changes in the Group's share of the joint venture's net assets.

			Ownership interest (%)	
Joint venture entity	**Reporting date**	**Country of incorporation**	**2019**	**2018**
Australia Pacific LNG Pty Ltd(1)	30 June	Australia	37.5	37.5
Energia Andina Geothermal SpA(2)	31 December	Chile	–	49.9
Energia Austral SpA(3)	31 December	Chile	–	34.0
KUBU Energy Resources (Pty) Limited	30 June	Botswana	50.0	50.0
PNG Energy Developments Limited	31 December	PNG	50.0	50.0
Venn Energy Trading Pte Limited(4)	31 March	Singapore	–	50.0

(1) Australia Pacific LNG Pty Ltd (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) The sale of Origin's shares in Energia Andina Geothermal SpA was completed on 24 August 2018.
(3) The sale of Origin's shares in Energia Austral SpA was completed on 8 January 2019.
(4) Venn Energy Trading Pte Limited was wound up on 10 July 2018.

Of the above joint arrangements, only APLNG has a material impact to the Group. 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
- Innamincka Deeps Geothermal

F2 Business combinations

2019

Acquisition of OC Energy Pty Ltd

On 1 March 2019 the Group completed the acquisition of 100 per cent of the formerly privately held OC Energy Pty Ltd (OCE) under a Share Sale Agreement. The acquisition adds serviced hot water and embedded electricity network customers to Origin's centralised energy services business.

Considering the timing of the transaction and the size of the operations, the overall impact of the acquisition to the Group's consolidated revenue and profit and loss since the acquisition date, is not significant.

Purchase consideration of $33 million was paid on the completion date, and was subject to the settlement of working capital and other balances as part of the typical completion adjustments. Considering the acquired cash balance ($4 million), the net cash impact from the acquisition at the reporting date was $29 million. The Group expects to make further payments of $25 million in total, subject to adjustment once certain conditions are met. Inclusive of these payments, as well as any completion adjustment amounts, total consideration is estimated at $59 million and the net cash impact after excluding the acquired cash balance is $55 million.

	2019 $m
Purchase consideration	33
Cash acquired	4
Acquisition-related cash outflow at the reporting date	**29**

The fair values of the net assets acquired as part of the business combination are detailed below.

	2019 Fair value[1] $m
Cash and cash equivalents	4
Trade and other receivables	11
PP&E	14
Other financial assets	7
Customer related intangible assets	43
Trade and other payables – current	(14)
Trade and other payables – non-current	(6)
	59

(1) In accordance with the Group's accounting policies the fair value of assets and liabilities acquired are provisional and will be subject to further review for a period of up to 12 months from the date of acquisition.

2018

There were no significant business combinations during the year ended 30 June 2018.

F3 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	2019 Ownership interest per cent	2018 Ownership interest per cent
Origin Energy Limited	NSW		
Origin Energy Finance Limited	Vic	100	100
Huddart Parker Pty Limited <	Vic	100	100
Origin Energy NZ Share Plan Limited	NZ	–	100
FRL Pty Ltd <	WA	100	100
B.T.S. Pty Ltd <	WA	100	100
Origin Energy Power Limited <	SA	100	100
Origin Energy SWC Limited <	WA	100	100
BESP Pty Ltd	Vic	100	100
Origin Energy Eraring Pty Limited <	NSW	100	100
Origin Energy Eraring Services Pty Limited <	NSW	100	100
Darling Downs Solar Farm Asset Holding Pty Ltd	NSW	–	100
Darling Downs Solar Farm Asset Pty Ltd	NSW	–	100
Origin Energy Upstream Holdings Pty Ltd	Vic	100	100
Origin Energy B2 Pty Ltd	Vic	100	100
Origin Energy Petroleum Pty Limited <	Qld	–	100
Origin Energy Browse Pty Ltd	Vic	100	100
Origin Energy CSG 2 Pty Limited	Vic	100	100
Origin Energy ATP 788P Pty Limited	Qld	100	100
Origin Energy C5 Pty Limited	Vic	100	100
Origin Energy Upstream Operator Pty Ltd	Vic	100	100
Origin Energy Holdings Pty Limited <	Vic	100	100
Origin Energy Retail Limited <	SA	100	100
Origin Energy (Vic) Pty Limited <	Vic	100	100
Gasmart (Vic) Pty Ltd <	Vic	100	100
Origin Energy (TM) Pty Limited <	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	100
Origin Energy Electricity Limited <	Vic	100	100
Eraring Gentrader Depositor Pty Limited	Vic	100	100
Sun Retail Pty Ltd <	Qld	100	100
OE Power Pty Limited <	Vic	100	100
Origin Energy Uranquinty Power Pty Ltd <	Vic	100	100
OC Energy Pty Ltd	Vic	100	–
Origin Energy Mortlake Terminal Station No. 1 Pty Limited	Vic	100	100
Origin Energy Mortlake Terminal Station No. 2 Pty Limited	Vic	100	100

	Incorporated in	2019 Ownership interest per cent	2018 Ownership interest per cent
Origin Energy PNG Ltd #	PNG	66.7	66.7
Origin Energy PNG Holdings Limited #	PNG	100	100
Origin Energy Tasmania Pty Limited <	Tas	100	100
The Fiji Gas Co Ltd	Fiji	51	51
Origin Energy Contracting Limited <	Qld	100	100
Origin Energy LPG Limited <	NSW	100	100
Origin (LGC) (Aust) Pty Limited <	NSW	100	100
Origin Energy SA Pty Limited <	SA	100	100
Hylemit Pty Limited	Vic	100	100
Origin Energy LPG Retail (NSW) Pty Limited	NSW	100	100
Origin Energy WA Pty Limited <	WA	100	100
Origin Energy Services Limited <	SA	100	100
OEL US Inc.	USA	100	100
Origin Energy NSW Pty Limited <	NSW	100	100
Origin Energy Asset Management Limited <	SA	100	100
Origin Energy Pipelines Pty Limited <	NT	100	100
Origin Energy Pipelines (SESA) Pty Limited	Vic	100	100
Origin Energy Pipelines (Vic) Holdings Pty Limited <	Vic	100	100
Origin Energy Pipelines (Vic) Pty Limited <	Vic	100	100
Origin LPG (Vietnam) LLC	Vietnam	–	51
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 <	SA	100	100
Oil Investments Pty Limited <	SA	100	100
Origin Energy Southern Africa Holdings Pty Limited	Qld	100	100
Origin Energy Kenya Pty Limited	Vic	–	100
Origin Energy Zoca 91-08 Pty Limited <	SA	100	100
Sagasco NT Pty Ltd <	SA	100	100
Sagasco Amadeus Pty Ltd <	SA	100	100
Origin Energy Amadeus Pty Limited <	Qld	100	100
Amadeus United States Pty Limited <	Qld	100	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 Rewards Pty Ltd	Vic	100	100
Origin Energy Metering Coordinator Pty Ltd	NSW	100	100
Origin Energy Resources NZ (Rimu) Limited	NZ	100	100

	Incorporated in	2019 Ownership interest per cent	2018 Ownership interest per cent
Origin Energy VIC Holdings Pty Limited <	Vic	100	100
Origin Energy New Zealand Limited	NZ	–	100
Origin Energy Universal Holdings Limited	NZ	–	100
Origin Energy Five Star Holdings Limited	NZ	–	100
Origin Energy Contact Finance Limited	NZ	–	100
Origin Energy Contact Finance No.2 Limited	NZ	–	100
Origin Energy Pacific Holdings Limited	NZ	–	100
Origin Energy Capital Ltd <	Vic	100	100
Origin Energy Finance Company Pty Limited <	Vic	100	100
OE JV Co Pty Limited <	Vic	100	100
OE JV Holdings Pty Limited	Vic	–	100
Origin Energy LNG Holdings Pte Limited	Singapore	100	100
Origin Energy LNG Portfolio Pty Ltd <	Victoria	100	100
Origin Energy Australia Holding BV #	Netherlands	100	100
Origin Energy Mt Stuart BV #	Netherlands	100	100
OE Mt Stuart General Partnership #	Netherlands	100	100
Parbond Pty Limited	NSW	100	100
Origin Education Foundation Pty Limited	Vic	100	100
Origin Foundation Limited	NSW	100	100
Origin Renewable Energy Investments No 1 Pty Ltd	Vic	100	100
Origin Renewable Energy Investments No 2 Pty Ltd	Vic	100	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. #	Chile	100	100
Origin Energy Geothermal Chile Limitada #	Chile	100	100
Pleiades S.A.	Chile	100	100
Origin Energy Geothermal Singapore Pte Limited	Singapore	100	100
Origin Energy Wind Holdings Pty Ltd	Vic	100	100
Crystal Brook Wind Farm Pty Limited	NSW	100	100
Wind Power Pty Ltd	Vic	100	100
Wind Power Management Pty Ltd	Vic	100	100
Tuki Wind Farm Pty Ltd	Vic	100	100
Dundas Tablelands Wind Farm Pty Limited	Vic	100	100
Origin Energy Hydro Bermuda Limited	Bermuda	100	100
Origin Energy Hydro Chile SpA #	Chile	100	100

< Entered into ASIC Corporations (Wholly-owned Companies) Instrument 2016/785 and related deed of cross guarantee with Origin Energy Limited.
Controlled entity has a financial reporting period ending 31 December.

F3 Controlled entities (continued)

Changes in controlled entities

2019

Darling Downs Solar Farm Asset Pty Ltd was deregistered on 3 October 2018.

Darling Downs Solar Farm Asset Holding Pty Ltd was deregistered on 3 October 2018.

OE JV Holdings Pty Limited was deregistered on 5 December 2018.

On 31 January 2019 Origin Energy New Zealand Limited, Origin Energy Universal Holdings Limited, Origin Energy Pacific Holdings Limited, Origin Energy Contact Finance Limited, Origin Energy Contact Finance No.2 Limited, Origin Energy Five Star Holdings Limited, Origin Energy NZ Share Plan Limited and Origin Energy Resources NZ (Rimu) Limited were amalgamated into one company, being Origin Energy Resources NZ (Rimu) Limited.

Origin LPG (Vietnam) LLC was sold on 21 February 2019.

OC Energy Pty Ltd was acquired on 1 March 2019.

Origin Energy Kenya Pty Limited was deregistered on 18 March 2019.

Origin Energy Petroleum Pty Ltd was sold on 11 April 2019.

Origin Energy Upstream Operator Pty Limited transferred its shares in Origin Energy Upstream Operator 2 Pty Limited to Origin Future Energy Pty Limited on 24 June 2019.

Origin Energy Upstream Operator 2 Pty Ltd changed its name to Origin Energy Rewards Pty Ltd on 25 June 2019.

Lexton Wind Farm Pty Ltd changed its name to Origin Energy C5 Pty Limited on 25 June 2019.

Wind Power Pty Ltd transferred its shares in Lexton Wind Farm Pty Ltd to Origin Energy Upstream Holdings Pty Ltd on 24 June 2019.

2018

Lattice Energy Limited transferred its shares in Origin Energy Browse Pty Ltd and Origin Energy Petroleum Pty Ltd to Origin Energy Upstream Holdings Pty Ltd on 31 August 2017.

Origin Energy Power Limited transferred its shares in Darling Downs Solar Farm Operating Holding Pty Ltd to Origin Energy Holdings Pty Limited on 27 July 2017.

Darling Downs Solar Farm Operating Holding Pty Ltd changed its name to Origin Future Energy Pty Limited on 7 August 2017.

Origin Future Energy Pty Ltd transferred its shares in Darling Downs Solar Farm Operating Pty Ltd to Origin Energy Holdings Pty Ltd on 24 August 2017.

Darling Downs Solar Farm Operating Pty Ltd changed its name to Origin Energy Metering Coordinator Pty Ltd on 24 August 2017.

Lattice Energy Resources NZ (Holdings) Limited transferred its shares in Origin Energy Resources NZ (Rimu) Limited to Origin Energy Holdings Pty Ltd on 25 September 2017.

Lattice Energy Limited transferred its shares in Origin Energy CSG 2 Pty Ltd and Origin Energy ATP 788P Pty Ltd to Origin Energy Upstream Holdings Pty Ltd on 26 September 2017.

Origin Foundation Pty Limited changed its name to Origin Education Foundation Pty Limited on 11 January 2018.

Origin Foundation Limited was incorporated on 12 January 2018.

On 31 January 2018 Lattice Energy Limited ceased to be controlled by the Group (refer note E4).

Acumen Metering Pty Ltd was sold on 19 June 2018.

F4 Disposals and assets and liabilities held for sale

Disposals

Vietnam

On 21 February 2019, Origin Energy Holdings Pty Limited (OEH) and PNX (Vietnam) Pte Ltd completed the sale and purchase of OEH's 51% interest in Origin LPG (Vietnam) Limited Liability Company for a cash consideration of $12 million. The principal activities of the company were the import, export, extraction and distribution of LPG in Vietnam. The net assets disposed was $7 million, resulting in a gain on sale before tax and transaction costs of $5 million. Cash disposed as part of the transaction was $1 million, resulting in an overall cash consideration net of cash disposed of $11 million. Transaction costs of approximately $2 million were incurred in relation to the transaction.

Heytesbury

On 11 April 2019, Origin Energy Upstream Holdings Pty Ltd (OEUH) and Lochard Energy (Iona Gas Storage) Pty Ltd completed the sale and purchase of OEUH's 100% interest in Origin Energy Petroleum Pty Ltd for a cash consideration of $1 million. The principal activities of the company were oil and gas exploration services. The company also held exploration permits in relation to the Heytesbury asset in the Otway Basin. The net assets disposed was $1 million, resulting in a net nil gain/loss on sale before tax and transaction costs. There was no cash disposed as part of the transaction. Transaction costs of approximately $1 million were incurred in relation to the transaction.

Chile

On 8 January 2019, Origin Energy Hydro Chile SpA (OECSA) and Glencore Canada Corporation completed the sale and purchase of OECSA's 34% interest in Energia Austral SpA for a cash consideration of $5 million. Energia Austral SpA is a hydroelectric power generation company located in Chile. The net assets disposed were valued at nil at the time of disposal, resulting in a gain on sale of $5 million before tax and transaction costs. There was no cash disposed as part of the transaction.

Assets and liabilities held for sale

Origin Energy ATP 788P Pty Limited holds the interests in the Ironbark permits. On 19 February 2019, the Group entered into an agreement to sell its Ironbark assets to APLNG for $231 million. As Foreign Investment Review Board (FIRB) approval had not been received by 30 June 2019, the assets and liabilities remain classified as held for sale. Refer to note G12 for subsequent FIRB approval and settlement of the transaction on 5 August 2019.

Assets and liabilities classified as held for sale	**2019 $m**
Property, plant and equipment	7
Exploration and evaluation assets	247
Assets classified as held for sale	**254**
Provisions	23
Liabilities classified as held for sale	**23**

G Other information

This section includes other information to assist in understanding the financial performance and position of the Group, or 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 the amount of the future payments are not able to be measured reliably.

Guarantees

Bank guarantees and letters of credit have been provided mainly to Australian Energy Market Operator Limited to support the Group's obligations to purchase electricity from the NEM.

	2019 $m	2018 $m[1]
Bank guarantees – unsecured	378	408

(1) Includes unsecured bank guarantees of $9 million related to discontinued operations.

The Group's share of guarantees for certain contractual commitments of its joint ventures is shown at note G2. The Group has also given letters of comfort to its bankers in respect of financial arrangements provided by the banks to certain partly owned controlled entities.

Joint arrangements

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 (2019–2024)) 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.

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 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.

G2 Commitments

Detailed below are the Group's contractual commitments that are not recognised as liabilities as the relevant assets have not yet been received.

	2019 $m(1)	2018 $m
Capital expenditure commitments	63	87
Joint venture commitments(2)	459	452
Operating lease commitments	543	505

(1) Excludes Agreement to Lease for 321 Exhibition Street, Melbourne which was executed on 22 July 2019. The gross operating lease commitment for the agreement amounts to $106 million.
(2) Includes $386 million (2018: $441 million) in relation to the Group's share of APLNG's capital, joint venture and operating lease commitments.

The Group leases property, plant and equipment under operating leases. The future minimum lease payments under non-cancellable operating leases are shown below.

	2019 $m	2018 $m
Less than one year	90	85
Between one and five years	223	191
More than five years	230	229
	543	**505**

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.

The table below shows share-based remuneration expense that was recognised during the year.

	2019 $m	2018 $m
Equity Incentive Plan	21	25
Employee Share Plan	5	5
	26	**30**

G3 Share-based payments (continued)

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 18 October 2018 were offered in the form of Options and/or Share Rights since that date in the form of Share Rights and/or Restricted Shares. Share Rights don't carry dividend or voting entitlements and Restricted Shares do.

(i) Short-Term Incentive (STI)

STI includes the award of Restricted Shares, which are unrestricted where the employee remains employed with satisfactory performance for a set period (generally after two years). Once unrestricted, the shares are transferred into the employee's name at no cost. The face value of Restricted Shares measured at grant date is recognised as an employee expense over the related service period. Restricted Shares are forfeited if the service and performance conditions are not met[1].

(ii) Long-Term Incentive (LTI)

LTI includes the award of Performance Share Rights (PSRs), which will only vest if certain company performance conditions and personal performance standards are met. FY2019 PSR grants have a performance period of three years. Half of each LTI award is subject to a market hurdle, namely Origin's Total Shareholder Return (TSR) relative to a Reference Group of ASX-listed companies identified in the relevant Remuneration Report. 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.

The number of awards that may vest depends on performance against each hurdle, considered separately.

For awards 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. For awards granted in respect of FY2016 and FY2017 that are subject to the ROCE hurdle, 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 respect of FY2018 and FY2019 that are subject to the ROCE hurdle, half of the ROCE tranche will be allocated to Energy Markets and the other half of the ROCE tranche will be allocated 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.

As there is no exercise price for PSRs, once vested they are exercised automatically. When exercised, 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 one year) and also carries voting and dividend entitlements.

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 circumstances[2] unvested PSRs 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 PSRs subject to the ROCE condition, the initial fair value at grant date is the market value of an Origin share less the discounted value of dividends foregone, and the expensing value is trued-up at each reporting period to the expected outcome as assessed at that time.

(1) The Equity Incentive Plan Rules set out exceptional circumstances such as death, disability, redundancy or genuine retirement under which DSRs vest at cessation unless the Board determines otherwise.

(2) The Equity Incentive Plan Rules provide that Rights and Restricted Shares are forfeited on cessation of employment unless the Board determines otherwise. The offer terms provide guidance for the exercise of that discretion, specifically that the Rights and Restricted Shares will not normally forfeit in cases of "good leavers" (e.g. death, disability, redundancy or genuine retirement).

G3 Share-based payments (continued)

Set out below is a summary of PSRs issued during the financial year.

	PSRs			
Grant date	10-Sep-18	10-Sep-18	17-Oct-18	17-Oct-18
Grant date share price	$7.82	$7.82	$8.15	$8.15
Exercise price	Nil	Nil	Nil	Nil
Volatility (per cent)	37%	37%	36%	36%
Dividend yield (per cent)(1)	2.0%	2.0%	2.0%	2.0%
Risk-free rate (per cent)(2)	–	2.01%	–	2.06%
Grant date fair value (per award)	$7.38	$3.14	$7.71	$3.65

(1) Dividend yield assumptions are based on the average dividend yield rate over the vesting period of three years.
(2) Where the risk free rate is nil, these PSR tranches are ROCE-tested, 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	DSRs	RSs
Outstanding at 1 July 2018	7,475,601	$8.84	4,086,642	4,402,736	–
Granted	–	–	1,793,349	–	2,059,842
Exercised	–	–	–	2,380,513	121,425
Forfeited	1,909,798	$15.65	753,321	101,374	70,941
Outstanding at 30 June 2019	**5,565,803**	**$6.51**	**5,126,670**	**1,920,849**	**1,867,476**
Exercisable at 30 June 2019	–	–	–	–	–
Outstanding at 1 July 2017	9,886,114	$10.35	3,486,357	5,434,657	–
Granted	1,432,299	$7.37	1,117,385	2,943,713	–
Exercised	–	–	–	3,822,999	–
Forfeited	3,842,812	$12.18	517,100	152,635	–
Outstanding at 30 June 2018	**7,475,601**	**$8.84**	**4,086,642**	**4,402,736**	**–**
Exercisable at 30 June 2018	–	–	–	–	–

The weighted average share price during 2019 was $7.64 (2018: $8.55). The options outstanding at 30 June 2019 have an exercise price in the range of $5.21 to $7.37 (2018: $5.21 to $15.65) and a weighted average contractual life of 7.1 years (2018: 6.9 years).

For more information on these share plans and performance rights issued to KMPs, refer to the Remuneration Report.

G3 Share-based payments (continued)

Employee Share Plan (ESP)

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 full-time and permanent part-time employees of the Company who are based in Australia and commenced employment on or before 1 March of the performance year, are granted up to $1,000 of fully paid Origin shares conditional upon Board approval. The shares are granted for no consideration. Shares awarded under the ESP 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.

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 trading restriction for a set period (generally 2 years) or until cessation of employment. The Company matches the purchased shares on a one-for-two basis with allocation of additional Matching Share Rights (MRs) which vest at the same time when the restriction is lifted for the purchased shares. Vesting of MRs is conditional upon the employee remaining in continuous employment at that time. MRs are forfeited if the service conditions are not met(1).

(1) The Equity Incentive Plan Rules provide that Rights and Restricted Shares are forfeited on cessation of employment unless the Board determines otherwise. The offer terms provide guidance for the exercise of that discretion, specifically that the Rights and Restricted Shares will not normally forfeit in cases of "good leavers" (e.g. death, disability, redundancy or genuine retirement).

Details of the shares awarded under the GESP during the year are set out below.

	Grant date	Shares granted	Cost per share(1)	Total cost $'000
2019	5-Sep-18	561,126	$8.12	4,556
		561,126		**4,556**
2018	28-Aug-17	620,116	$7.43	4,607
		620,116		**4,607**

(1) The cost per share represents the weighted average market price of the Company's shares on the grant date.

Set out below is a summary of MRs outstanding at the beginning and end of the financial year.

	MRs
Outstanding at 1 July 2018	–
Granted	77,451
Exercised/Released	1,830
Forfeited	1,622
Expired	–
Outstanding at 30 June 2019	**73,999**
Exercisable at 30 June 2019	–

G4 Related party disclosures

The Group's interests in equity accounted entities and details of transactions with these entities are set out in notes B4 and F1.

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

	2019 $	2018 $
Short-term employee benefits	9,941,352	9,704,215
Post-employment benefits	255,313	252,588
Other long-term benefits	182,927	150,525
Share-based payments	4,311,013	4,343,944
	14,690,605	**14,451,272**

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 which 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 Dividend Reinvestment Plan;
- participation in the Employee Share Plan, Equity Incentive Plan and Non-Executive Director Share 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.

G6 Notes to the statement of cash flows

Cash includes cash on hand, at bank and short-term deposits, net of outstanding bank overdrafts.

The following table reconciles profit to net cash provided by operating activities.

	2019 $m	2018 $m
Profit for the period	**1,214**	**221**
Adjustments for non-cash ITDA		
Depreciation and amortisation	419	381
Net financing costs	154	279
Tax expense	64	(20)
Non-cash share of ITDA of equity accounted investees(1)	1,510	1,192
Adjustments for other non-cash items		
Decrease in fair value of derivatives	102	418
(Increase)/decrease in fair value of financial instruments	(391)	46
Unrealised foreign exchange loss/(gain)	80	(41)
Impairment of assets	39	712
Gain on sale of assets	–	(234)
Impairment losses recognised – trade and other receivables	84	88
Non-cash share of EBITDA of equity accounted investees	(2,142)	(1,397)
Exploration expense	2	8
Amortisation of oil option premiums	–	64
Executive share-based payment expense	21	25
Oil forward sale settlements (pre-early termination)	–	(86)
Changes in assets and liabilities		
– Receivables	207	(321)
– Inventories	58	(66)
– Payables	(175)	128
– Provisions	179	(15)
– Other	(115)	(51)
– Futures collateral	125	(170)
Tax paid	(110)	(38)
Total adjustments	**111**	**902**
Net cash from operating activities	**1,325**	**1,123**

(1) The balance is comprised of our share of APLNG and other components of the Integrated Gas segment. Refer to note A1.

G6 Notes to the statement of cash flows (continued)

Reconciliation of movements of liabilities to cash flows arising from financing activities

	Liabilities from financing activities			
$m	**Current borrowings**	**Non-current borrowings**	**Other financial (assets)/ liabilities**	**Total**
Balance as at 1 July 2018	1,089	6,350	(939)	6,500
Proceeds from borrowings	–	2,063	–	2,063
Repayment of borrowings/other liabilities	(1,129)	(1,014)	265	(1,878)
Foreign exchange adjustments	71	168	(159)	80
Reclassification	917	(917)	–	–
Other non-cash movements	–	(2)	188	186
Balance as at 30 June 2019	**948**	**6,648**	**(645)**	**6,951**

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.

	2019 $'000	**2018 $'000**
Audit and review services of the financial reports by:		
Auditors of the Group (KPMG)	1,912	2,360
Other auditors	96	88
	2,008	**2,448**
Other services by:		
Auditors of the Group (KPMG)		
Taxation services	78	97
Legal services	–	37
Lattice related services(1)	–	1,184
Advisory services	185	61
Other	158	179
	421	**1,558**
	2,429	**4,006**

(1) This amount in the prior period relates to a potential IPO transaction; US 144A advisory, accounting advice, legal advisory and taxation services for Lattice Energy.

G8 Master netting or similar agreements

The Group enters into derivative transactions under International Swaps and Derivatives Association (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.

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 reporting date. The column 'net amount' 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
2019					
Derivative assets	1,754	(320)	1,434	(398)	1,036
Derivative liabilities	(1,823)	320	(1,503)	398	(1,105)
2018					
Derivative assets	1,893	(254)	1,639	(678)	961
Derivative liabilities	(1,912)	254	(1,658)	678	(980)

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. The controlled entities that are party to the Deed are shown in note F3.

The following consolidated statement of comprehensive income and retained profits, and statement of financial position comprises the Company and its controlled entities which are party to the Deed of Cross Guarantee after eliminating all transactions between parties to the Deed.

For the year ended 30 June	2019 $m	2018 $m
Consolidated statement of comprehensive income and retained profits		
Revenue	14,510	14,297
Other income	26	95
Expenses	(13,606)	(13,554)
Share of results of equity accounted investees	632	205
Impairment	(360)	–
Interest income	234	228
Interest expense	(453)	(544)
Profit before income tax	**983**	**727**
Income tax expense	(119)	(65)
Profit for the year	**864**	**662**
Other comprehensive income	–	–
Total comprehensive income for the year	**864**	**662**
Retained earnings at the beginning of the year	**4,890**	**4,232**
Adjustments for entities entering the Deed of Cross Guarantee	–	(4)
Retained earnings at the beginning of the year	**4,890**	**4,228**
Impact of AASB 9 adoption	(145)	–
Dividends paid	(176)	–
Retained earnings at the end of the year	**5,433**	**4,890**

G9 Deed of cross guarantee (continued)

As at 30 June	2019 $m	2018 $m
Statement of financial position		
Current assets		
Cash and cash equivalents	1,455	56
Trade and other receivables	2,950	3,146
Inventories	126	183
Derivatives	454	406
Other financial assets	318	208
Other assets	110	151
Total current assets	**5,413**	**4,150**
Non-current assets		
Trade and other receivables	2,135	1,966
Derivatives	962	1,109
Other financial assets(1)	3,161	4,274
Investments accounted for using the equity method	6,960	5,988
Property, plant and equipment	3,337	3,391
Intangible assets	5,309	5,130
Deferred tax assets	227	152
Other assets	43	38
Total non-current assets	**22,134**	**22,048**
Total assets	**27,547**	**26,198**
Current liabilities		
Trade and other payables	2,120	2,204
Payables to joint ventures	204	221
Interest-bearing liabilities	137	–
Derivatives	381	182
Other financial liabilities	275	61
Provision for income tax	160	114
Employee benefits	132	118
Provisions	56	34
Total current liabilities	**3,465**	**2,934**
Non-current liabilities		
Trade and other payables	8,227	8,315
Interest-bearing liabilities	605	713
Derivatives	1,115	1,234
Employee benefits	21	19
Provisions	484	321
Total non-current liabilities	**10,452**	**10,602**
Total liabilities	**13,917**	**13,536**
Net assets	**13,630**	**12,662**
Equity		
Contributed equity	7,125	7,150
Reserves	1,072	622
Retained earnings	5,433	4,890
Total equity	**13,630**	**12,662**

(1) Includes investment in subsidiaries relating to entities outside of 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	2019 $m	2018 $m
Profit/(loss) for the year	1,118	(1,390)
Other comprehensive income, net of income tax	342	258
Total comprehensive income for the year	**1,460**	**(1,132)**
Financial position of the parent entity at year end		
Current assets	2,668	1,193
Non-current assets	20,560	20,164
Total assets	**23,228**	**21,357**
Current liabilities	4,677	3,596
Non-current liabilities	6,770	7,118
Total liabilities	**11,447**	**10,714**
Contributed equity	7,125	7,150
Share-based payments reserve	234	247
Foreign currency translation reserve	720	379
Hedge reserve	(12)	(13)
Retained earnings[(1)]	3,714	2,880
Total equity	**11,781**	**10,643**

(1) Refer to Overview for impact of adoption of AASB 9 of $108 million and to note A6 for dividends provided for or paid of $176 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 F3.

G11 New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations are effective for annual periods beginning after 1 July 2019, which have not been applied in preparing the Group's financial statements. None of these are expected to have a significant effect on the Group with the exception of AASB 16 *Leases*.

AASB 16 *Leases*

AASB 16 is effective for the Group for the reporting period beginning 1 July 2019 and requires lessees to account for all leases under a single on-balance sheet model similar to the way finance leases are treated under the current standard.

As at the reporting date, the Group is in the final stages of assessing the impact of the new leasing standard on the financial statements. The below table sets out the expected impact on the statement of financial position as at 1 July 2019.

Estimated impact on the statement of financial position	$m
New lease liabilities	450 to 500
Right-of-use (ROU) assets(1)	375 to 425

(1) Includes rent receivable related to sub-leases for which the Group is the intermediate lessor.

The Group's operating lease portfolio is predominantly comprised of commercial offices, terminals, power generating assets and fleet vehicles. New lease liabilities and ROU assets will be recognised for these operating leases. The corresponding interest expense and depreciation charge will be recognised in the income statement. No significant impact is expected for the Group's existing finance leases.

The Group plans to apply AASB 16 initially on 1 July 2019, using the modified retrospective approach. Under this approach, the cumulative effect of adopting the new standard will be recognised as an adjustment to the opening balance of retained earnings at 1 July 2019. No restatement of comparative information is required.

The Group will take advantage of recognition exemptions for leases that are less than 12 months and leases for which the underlying asset is of low value.

G12 Subsequent events

Other than the matters described below, no item, transaction or event of a material nature has arisen since 30 June 2019 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.

On 25 July 2019 Origin announced that notice had been given to redeem the €1 billion Capital Securities due in 2074, issued by Origin Energy Finance Limited, at their first call date of 16 September 2019.

On 19 February 2019 Origin announced that it had entered into an agreement with APLNG to sell its Ironbark asset for $231 million. Settlement of the transaction occurred on 5 August 2019 and a net nil profit or loss is expected to be realised in the year ending 30 June 2020.

On 22 August 2019 the directors determined a final dividend of 15 cents per share, fully franked at 30 per cent, on ordinary shares. The dividend will be paid on 27 September 2019. The financial effect of this dividend has not been brought to account in the financial statements for the year ended 30 June 2019 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 2019 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.

(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 F3 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 2019.

Signed in accordance with a resolution of the Directors:

Gordon Cairns
Chairman Director

Sydney, 22 August 2019

Independent Auditor's Report

30 June 2019

KPMG

Independent Auditor's Report

To the shareholders 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).

In our opinion, the accompanying Financial Report of the Company is in accordance with the *Corporations Act 2001*, including:

- giving a true and fair view of the ***Group***'s financial position as at 30 June 2019 and of its financial performance for the year ended on that date; and
- complying with *Australian Accounting Standards* and the *Corporations Regulations 2001*.

The ***Financial Report*** comprises:

- Consolidated statement of financial position as at 30 June 2019;
- Consolidated income statement, Consolidated statement of comprehensive income, Consolidated statement of changes in equity, and Consolidated statement of cash flows for the year then ended;
- Notes including a summary of significant accounting policies; and
- Directors' Declaration.

The ***Group*** consists of the Company and the entities it controlled at the year-end or from time to time during the financial year.

Basis for opinion

We conducted our audit in accordance with *Australian Auditing Standards*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 *Corporations Act 2001* and the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the Financial Report in Australia. We have fulfilled our other ethical responsibilities in accordance with the Code.

KPMG

Key Audit Matters	
The ***Key Audit Matters*** we identified are: • Carrying value of the Australian Pacific LNG (APLNG) equity accounted investment, • Accounting for derivative financial assets and liabilities, • Unbilled revenue, • Unbilled network expenses, and • Restoration provisions.	***Key Audit Matters*** are those matters that, in our professional judgement, were of most significance in our audit of the Financial Report of the current period. These matters were addressed in the context of our audit of the Financial Report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Carrying value of the Australia Pacific LNG (APLNG) equity accounted investment (A$6,960m as at 30 June 2019)	
Refer to Note B2 to the Financial Report	
The key audit matter	**How the matter was addressed in our audit**
The recoverability of the carrying value of the APLNG equity accounted investment is considered a key audit matter. This is due to the: • Group's exposure to commodity price fluctuations, a fundamental input to this asset value, which increases the risk of inaccurate forecasting; • Inherent complexity in estimating forecast future cash flows used in the models to value this asset. The model uses forward-looking assumptions which tend to be prone to greater risk of potential bias, error and inconsistent application; and • Historical carrying value adjustments. These conditions necessitate additional scrutiny by us, in particular to address the objectivity of sources used for assumptions, and their consistent application. The Group uses the Fair Value Less Costs of Disposal (FVLCOD) method to determine the recoverable amount. Key matters we consider for the APLNG FVLCOD model include: • Economic assumptions such as oil prices	Our procedures included: • Considering the appropriateness of the fair value less costs of disposal method applied by the Group to determine the recoverable amount against the requirements of the accounting standards; • Assessing the accuracy of previous cash flow forecasts to challenge current period forecasts; • Analysing the impact of reasonably possible changes in the key assumptions, such as discount rates, future foreign exchange rates and oil prices, on the APLNG FVLCOD model. We did this to identify those assumptions at higher risk of bias or inconsistency in application and to focus our further procedures. • Understanding the Group's process for preparation of reserve estimates, including testing key controls around review and approval of underlying inputs and assumptions. • Evaluating the scope, competence and objectivity of the Group's internal and external specialists responsible for the available reserve and future production profile inputs; • Comparing forecast cash flows included in the APLNG FVLCOD model to those included in the following to ensure consistency and

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and future foreign exchange rates, due to the volatility of the prices and the long term nature of these assets; • Cash generating unit (CGU) specific factors, including discount rates, forecast cash flows, and rehabilitation and abandonment costs, which are inherently complex to estimate; and • Available reserves and future production profiles. Reserve estimates are dependent on the production results and additional geological information obtained in the course of operations, as well as the judgement of the Group's internal and external specialists responsible for the preparation of the reserves estimate.	alignment to Board approved forecasts and estimates: o future production profiles as published in the Group's 2019 annual reserves report; o rehabilitation and abandonment costs to the amounts included in the rehabilitation and abandonment provision models. • Using our valuation specialists and comparing: o Oil price assumptions to a combination of observable external market forecasts, pricing in recent long-term supply contracts and corroborating against the Group's supply/demand analysis; o Future foreign exchange rate assumptions to foreign exchange forward rates from Bloomberg; o The inputs to the CGUs' discount rates, including the risk free rate, equity beta, and market risk premium, to observable market and comparator group data; • Comparing assumptions used by APLNG in the APLNG FVLCOD model to value their assets to assumptions used by the Group, including the impact of these on the APLNG valuation and conclusions reached.

Accounting for derivative financial assets and liabilities (A$1,434m and A$1,503m respectively as at 30 June 2019)

Refer to Notes D4 – D5 to the Financial Report

The key audit matter	How the matter was addressed in our audit
Accounting for derivative financial assets and liabilities is considered a key audit matter due to being inherently complex. The factors contributing to that complexity included the: • judgement required in the Group's estimation of the fair value of certain financial instruments within the Group's portfolio, particularly Level 3 instruments. These are valued via internal models applying an industry accepted methodology and using key inputs that are not based on observable market data, such as long dated forward curves and forecast volumes;	Our procedures included: • Using our valuation specialists: o evaluating the methodology of the internal valuation models applied to Level 3 financial instruments against market practices and the requirements of the accounting standards; o testing the internally derived inputs, such as long dated forward curves and forecast volumes, in the Level 3 valuations. We compared these unobservable inputs to our expectations

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• Group's application of hedge accounting to certain exposures in their portfolio in the initial year of designation. This includes ongoing monitoring of hedge effectiveness for compliance with the specific requirements of AASB 9 *Financial Instruments*; • detailed spreadsheets used by the Group underlying the disclosures required by AASB 7 *Financial Instrument Disclosures*, which are inherently more prone to error than system-generated calculations; and • Group's reliance on the operating effectiveness of controls at the third party service organisation, REVAL, to value certain derivative financial instruments and apply hedge accounting.	based on our knowledge and understanding of industry-specific factors; ○ independently re-performing a sample of Level 1 and 2 Group-prepared financial instrument valuations and hedge accounting results, including effectiveness, and comparing them to the Group's results; • Evaluating the Group's hedge documentation of new and changes to existing significant hedge relationships for compliance with AASB 9 *Financial Instruments* • Evaluating the findings from reading the Group's third party service organisation's, REVAL, ASAE 3402 (*Assurance Reports on Controls at a Service Organisation*) assurance report, which addresses the effectiveness of controls operating at the third party service organisation, for the implications to the Group's valuations. We tested key Group controls in relation to the REVAL system and related valuation outputs, including user access testing and authorisation of program changes; • Testing, on a sample basis, the Group's authorisation controls and segregation of duties for the entry and settlement of financial instrument trades; • Checking, on a sample basis, the key terms for the entry of trades to underlying third party transaction documents. This includes: counterparty information, trade dates, rates, maturity dates and notional amounts; • Assessing the: ○ integrity and mathematical accuracy of Group-prepared spreadsheets underlying disclosures and comparing them to the audit evidence obtained from other testing; ○ financial instrument disclosures in Notes D4-D5 against the requirements of the accounting standard.

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Unbilled revenue (A$1,226m, net of allowance for impairment as at 30 June 2019)	
Refer to Notes A2 and C1 to the Financial Report	
The key audit matter	**How the matter was addressed in our audit**
The estimation of unbilled revenue is considered a key audit matter due to the significant audit effort resulting from the estimation uncertainty involved by the Group in determining the volume of energy supplied since a customer's last bill before balance date and the application of complex pricing structures. Key factors impacting this estimate include: • The different customer rates and product/plan offerings across the various regulated and unregulated markets for both electricity and gas, which require stratification and disaggregation in our audit testing; • The complex nature of estimating customer demand over a large number of customers. Customer demand can be influenced by a number of factors including weather and the customers' individual circumstances. Due to large customer numbers, a small error in estimating demand at a customer level could have a large cumulative effect on estimates of total unbilled revenue; and • Physical energy loss between purchasing energy and delivering the energy to the end customer, given its estimation difficulty.	Our procedures included: • Assessing the historical accuracy of the Group's estimates against subsequent billings. This allowed us to evaluate the accuracy of the Group's outcomes for estimating customer volumes of energy supplied, physical energy lost and rates applicable in the unbilled revenue estimate processes; • Checking the volume of wholesale energy purchased by the Group to Australian Electricity Market Operations (AEMO) invoices on a sample basis; • Reconciling purchase volumes to revenue volumes recognised; • Challenging the current period estimate by comparing: o year end unbilled revenue amounts, by state and fuel type, against historical billings and historical purchased volumes delivered to customers; o year end unbilled revenue amounts to subsequent billings, where possible, on a sample basis; o average rates used in the accrual estimation to historical and current rates; o internally generated estimates of physical energy loss levels through the distribution process to the industry loss rates published by the AEMO and investigating unusual trends or variances.

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Unbilled network expenses contained within Trade Payables (A$2,008as at 30 June 2019)	
Refer to Note A2 to the Financial Report	
The key audit matter	**How the matter was addressed in our audit**

The estimation of unbilled network expenses is considered a key audit matter due to the significant audit effort resulting from the uncertainty involved in estimating the volume of energy purchased to satisfy the Group's customer demand since the last bill before balance date. Key factors impacting this estimate include:
• Levels of customer demand and physical energy loss, which were outlined above in the Unbilled revenue key audit matter; and
• The amount of energy volume that was supplied to customers between the last invoice date from the respective distribution company and balance date.
	Our procedures included:
	• Assessing the historical accuracy of the Group's estimates against subsequent payments to distributors. This allowed us to evaluate the accuracy of the Group's outcomes for estimating customer volumes of energy supplied in the unbilled network expenses estimate process.
	• Checking the volume of wholesale energy purchased by the Group to Australian Electricity Market Operations (AEMO) invoices on a sample basis.
	• Reconciling purchase volumes to revenue volumes recognised.
	• Challenging the current period estimate by:
	    ○ Comparing year end unbilled network expense accrual amounts, by state and fuel type, against historical distributor invoices and historical purchased volumes delivered to customers;
	    ○ Checking for consistency the correlation of volume estimates for unbilled network expenses to the estimates for unbilled revenue;
	    ○ Comparing internally generated estimates of physical energy loss levels through the distribution process to the industry loss rates published by the AEMO
	    and investigating unusual trends or variances;
	• Developing an expectation of unbilled distribution costs based on the unbilled volume and estimated price per unit of energy and investigating any variance that is outside our expectation.

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Restoration provisions (A$428m as at 30 June 2019)	
Refer to Note C5 to the Financial Report	
The key audit matter	**How the matter was addressed in our audit**

The Group's determination of environmental rehabilitation provisions relating to legacy and current operational sites, which comprise a large portion of the restoration provisions, is considered a key audit matter. This is due to the inherent complexity in estimating future environmental rehabilitation costs, particularly those that are forecast to be incurred several years into the future.
 	
This is influenced by:
 	
• Current environmental, regulatory and legal requirements, and the impact to the completeness of the environmental rehabilitation activities incorporated into the provision estimate;
• The Group's expected environmental management strategy and the nature of costs, which are dependent upon this strategy, incorporated into the rehabilitation provision estimate;
• External expert advice sought by the Group regarding its obligations and estimates of future costs; and
• The expected timing of the expenditure.
	Our procedures included:
	
	• Checking the consistency of the basis for recognition and measurement of the rehabilitation provisions with environmental, regulatory and legal requirements, and the requirements of the accounting standards;
	• Reading the Group's external expert reports, where available, as well as internal and external underlying documentation for the Group's determination of future required activities, their timing, and associated cost estimations and comparing them to the nature and quantum of costs contained in the provision balance;
	• Using our environmental specialists and assessing:
	  ○ the scope, objectivity and competence, of the Group's internal and external experts; and
	  ○ the cost estimates in the external expert reports, including data completeness, proposed rehabilitation strategies, key cost components, and contingency levels, based on the site testing performed by the external expert and against our knowledge and understanding of the industry;
	• Evaluating the completeness of the rehabilitation provisions through examination of the Group's operating locations, regulatory correspondence, external expert advice and independent request of the Group's external lawyers on relevant matters.

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Other Information

Other Information is financial and non-financial information in Origin Energy Limited's annual reporting which is provided in addition to the Financial Report and the Auditor's Report. The Directors are responsible for the Other Information.

Our opinion on the Financial Report does not cover the Other Information and, accordingly, we do not express an audit opinion or any form of assurance conclusion thereon, with the exception of the Remuneration Report and our related assurance opinion.

In connection with our audit of the Financial Report, our responsibility is to read the Other Information. In doing so, we 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.

We are required to report if we conclude that there is a material misstatement of this Other Information, and based on the work we have performed on the Other Information that we obtained prior to the date of this Auditor's Report we have nothing to report.

Responsibilities of the Directors for the Financial Report

The Directors are responsible for:

- preparing the Financial Report that gives a true and fair view in accordance with *Australian Accounting Standards* and the *Corporations Act 2001;*
- implementing necessary internal control to enable the preparation of a Financial Report that gives a true and fair view and is free from material misstatement, whether due to fraud or error; and
- assessing the Group and Company's ability to continue as a going concern and whether the use of the going concern basis of accounting is appropriate. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the Group and Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Report

Our objective is:

- 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 *Australian Auditing Standards* will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They 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 the Financial Report.

A further description of our responsibilities for the audit of the Financial Report is located at the *Auditing and Assurance Standards Board* website at: http://www.auasb.gov.au/auditors_responsibilities/ar1.pdf. This description forms part of our Auditor's Report.

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Report on the Remuneration Report

Opinion

In our opinion, the Remuneration Report of Origin Energy Limited for the year ended 30 June 2019, complies with *Section 300A* of the *Corporations Act 2001*.

Directors' 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 responsibilities

We have audited the Remuneration Report included in Directors' report for the year ended 30 June 2019.

Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with *Australian Auditing Standards*.

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D McLennan

Duncan McLennan

Partner

Sydney

22 August 2019

Share and Shareholder Information

Information set out below was applicable as at 22 August 2019.

As at 22 August 2019, there were:

- 139,357 holders of ordinary shares in the Company; and
- 26 holders of 5,565,803 Options, 99 holders of 5,126,670 Performance Share Rights, 305 holders of 1,776,783 Deferred Share Rights granted under the Origin Energy Equity Incentive Plan and 487 holders of 72,313 Maturing Share Plan Rights granted under the Origin Maturing Plan.

There is not a current on-market buy-back of Origin shares.

During the reporting period, 9,611,526 Origin shares were purchased on-market for the purpose of Origin employee share and equity schemes. The average price per share purchased was $7.94 exclusive of brokerage.

Analysis of shares

Holdings Ranges	Holders	Total Units	%
1–1,000	56,977	25,070,627	1.423
1,001–5,000	59,470	143,747,108	8.162
5,001–10,000	14,108	99,393,522	5.643
10,001–100,000	8,568	174,234,686	9.893
100,001–99,999,999,999	234	1,318,765,128	74.878
Totals	**139,357**	**1,761,211,071**	**100.000**

6,252 shareholders hold less than a marketable parcel as at 22 August 2019.

Substantial shareholders

There were no substantial shareholders as disclosed by notices received by the Company as at 22 August 2019.

Top 20 holdings

Shareholder	Number of Shares	% of Issued Shares
HSBC Custody Nominees (Australia) Limited	469,913,615	26.681%
J P Morgan Nominees Australia Pty Limited	387,576,945	22.006%
Citicorp Nominees Pty Limited	141,764,508	8.049%
National Nominees Limited	90,773,043	5.154%
BNP Paribas Nominees Pty Ltd <Agency Lending DRP A/C>	44,476,266	2.525%
BNP Paribas Noms Pty Ltd <DRP>	41,106,648	2.334%
HSBC Custody Nominees (Australia) Limited <NT-Comnwlth Super Corp A/C>	18,336,346	1.041%
Argo Investments Limited	11,351,603	0.645%
Citicorp Nominees Pty Limited <Colonial First State INV A/C>	10,699,293	0.607%
Australian Foundation Investment Company Limited	6,000,000	0.341%

Shareholder	Number of Shares	% of Issued Shares
HSBC Custody Nominees (Australia) Limited-GSCO ECA	5,906,203	0.335%
AMP Life Limited	5,289,059	0.300%
Sargon CT Pty Ltd <Origin Energy ESP Unalloc>	4,666,245	0.265%
The Senior Master of the Supreme Court <Common Fund No 3 A/C>	3,580,943	0.203%
BNP Paribas Nominees Pty Ltd Hub24 Custodial Serv Ltd DRP	3,260,363	0.185%
HSBC Custody Nominees (Australia) Limited	2,939,596	0.167%
Netwealth Investments Limited <Wrap Services A/C>	2,270,425	0.129%
EQT Wealth Services Limited <Common Fund 103 A/C>	2,080,775	0.118%
Sargon CT Pty Ltd <Origin Energy ESP Allocated>	1,963,876	0.112%
UBS Nominees Pty Ltd	1,783,831	0.101%
Total Securities of Top 20 Holdings	1,255,737,583	71.300%
Total of Securities	**1,761,211,071**	

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 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 as yet 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 and the Shareholder Review. Both the Annual Report and Shareholder Review 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 originenergy.com.au is another source of information for shareholders.

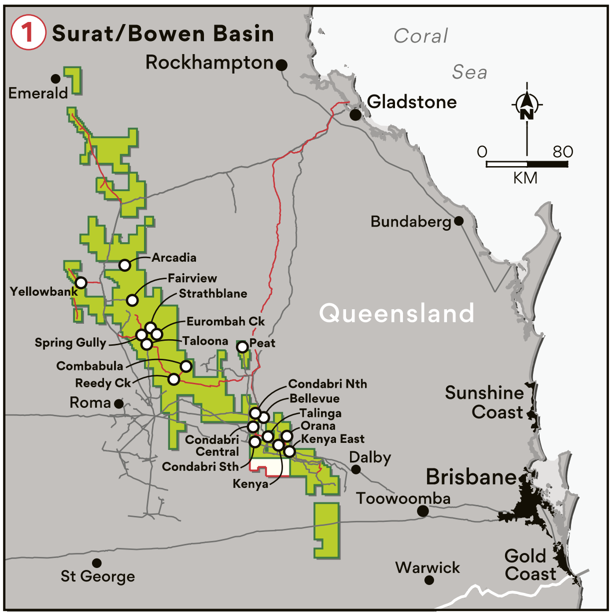
Securities Exchange Listing

Origin shares are traded on the Australian Securities Exchange Limited (ASX). The symbol under which Origin shares are traded is 'ORG'.

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 share held.

Exploration and Production Permits and Data



Origin Energy Interests

- Origin permit
- APLNG permit
- Pipeline
- Production facility

Other (Non Origin)

- Pipeline

1. Origin's interests

Origin held interests in the following permits at 30 June 2019.

Australia

Basin/Project Area	Interest	
Surat Basin/Ironbark (Queensland)		
ATP 788P (Shallows)	100.0%	*
ATP 788P (Deeps)	25.00%	*
Denison Trough (Queensland)		
PL's 43, 44, 45 54, 183 and 218 (Deeps)	18.75%	1
ATP 1191 Farm-out (Mahalo block)	11.25%	1
PL's 450, 451, 457 and 1012	18.75%	1
ATP 1191 and PL(A) 1062	18.75%	1
LNG (Gladstone)		
PPL's 162 and 163	37.50%	*1
PFL 20	37.50%	*1
CSG (Queensland) Fairview/Arcadia		
ATP 526P, ATP 2012P, and PL's 90, 91, 92, 99, 100, 232, 233, 234, 235 and 236, PL(A) 1017	8.97%	1
ATP's 745P and 2033 and PL's 420, 421 and 440, PL(A) 1059	8.94%	1
Spring Gully		
ATP 592P and PL's 195, 414, 415, 416, 417, 418, 268 and 419(A)	35.44%	*1
PL 204	37.40%	*1
PL 200	35.89%	*1
PPL 143, 180 and 2026	37.50%	*1
Talinga/Orana		
ATP 692P and PL's 209, 215, 226, 272, 216(A), 225(A), 445(A)	37.50%	*1
PPL's 171 and 181, PPL 2032	37.50%	*1
PFL 26	37.50%	*1
Kenya/Kenya East/Bellevue/Anya		
PL's 179, 180, 228, 229 and 263	15.23%	1
PL 247	11.02%	1
PL's 257, 273, 274, 275, 278, 279, 442, 466, 474 and 503 (Shallows)	11.72%	1
PL 1025	11.72%	1
PFL 19	11.72%	1
PPL's 107, 176 and 2014	15.23%	1
Peat		
PL 101	37.50%	*1
Other Bowen Basin		
ATP 804P	10.99%	1
PL's 219 and 220	37.50%	*1
Condabri		
PL's 265, 266 and 267	37.50%	*1
PL's 177, 185, 186 and 2000	37.50%	*1
Other Surat Basin		
ATP 663P and PL's 434(A), 435(A), 436(A), 437(A), 438(A) and 439(A)	37.5%	*1
ATP 973P	37.50%	*1
ATP 972P and PL's 469(A), 470(A) and 471(A)	34.77%	*1
ATP 2046(A)	33.75%	*1
PL 1011	37.50%	*1
PL 1018	37.50%	*1
Combabula/Reedy Creek		
ATP 606P and PL's 297, 403, 404, 407, 408, 405, 406(A), 412(A), 413 and 444(A)	34.77%	*1
PPL 178	37.50%	*1
Angry Jungle		
ATP 631P and PL's 281 and 282	6.79%	1
Browse Basin (Western Australia)		
WA-315-P, WA-398-P and TP/28	40.00%	
Beetaloo Basin (Northern Territory)		
EP 76, EP 98 and EP117	70.00%	*
Geothermal (South Australia)		
GRL 3	30%	

Notes:

* Operatorship

1 Interest held through 37.5 per cent ownership of Australian Pacific LNG Joint Venture

Annual Reserves Report

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 (APLNG), as at 30 June 2019.

1.1 Highlights

APLNG

- Activity during FY2019 continued to focus on maximising production for supply to the two LNG trains at Curtis Island and to the domestic market, contributing to:
  - a stable production result with Origin's share of APLNG production increasing by 1 PJe from FY2018 to 255 PJe, despite planned upstream maintenance;
  - a 55 PJe increase in Origin's share of 2P reserves before production reflecting improved field performance and maturation of resources to reserves, partly offset by contingent resource reclassifications and reductions in non-operated reserves; and
  - Origin's share of proven reserves (1P) have continued to grow with an increase of 5% or 140 PJe before production as a result of development drilling. After taking into account production, 1P decreased by 115 PJe to 2,764 PJe. Proven reserves (1P) represent 58 per cent of total 3P reserves as at 30 June 2019.
- APLNG also continues to focus on maturing its strong resource base with increasing exploration and appraisal activities, as well as through technology trials and continuing cost saving initiatives.

1.2 2P Reserves

Proved plus probable (2P) reserves decreased by 200 PJe (after production) to a total of 4,599 PJe, when compared to 30 June 2018.

Origin 2P reserves by area

2P reserves by area (PJe)	2P 30/06/2018	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	2P 30/06/2019
Australia Pacific LNG	**4,670**	**–**	**–**	**55**	**(255)**	**4,470**
Surat/Bowen (Unconventional)						
– Spring Gully & Denison Asset	670	–	–	103	(40)	733
– Condabri, Talinga & Orana Asset	1,453	–	–	51	(100)	1,405
– Reedy Creek, Combabula & Peat Asset	1,590	–	–	(59)	(57)	1,475
– Non-Operated Assets	957	–	–	(41)	(59)	857
Other						
Ironbark (unconventional)	129	–	–	–	–	129
Total	**4,799**	**–**	**–**	**55**	**(255)**	**4,599**

Summary of 2P Reserves movement

The key changes in 2P reserves include:

- 255 PJe decrease due to production
- 55 PJe net increase resulting from revisions/extensions associated with APLNG assets.

The increase of 55 PJe of 2P reserves before production included movements in the following areas:

- increase in forecast estimated recovery from producing areas with improved understanding of field behaviour, including improved performance from Spring Gully, Talinga and Orana;
- inclusion of new areas to reserves, including the Mahalo asset (within Spring Gully) following successful appraisal activities and a Queensland government awarded tender block (within Talinga and Orana); partially offset by
- reserve/resource reclassifications and updates to field operating costs based on the latest operational assumptions; and
- reductions in non-operated areas.

Additional notes:

- As at 30 June 2019, developed 2P reserves represented 52% of total 2P reserves.
- As at 30 June 2019, 100% of Origin 2P reserves are unconventional gas.

Origin 2P Reserves by development type

2P Reserves by development type (PJe)	Developed	Undeveloped	Total 2P 30/06/2018	Developed	Undeveloped	Total 2P 30/06/2019
Australia Pacific LNG	**2,461**	**2,208**	**4,670**	**2,386**	**2,084**	**4,470**
Surat/Bowen (Unconventional)						
– Spring Gully & Denison Asset	543	126	670	496	238	733
– Condabri, Talinga & Orana Asset	988	465	1,453	935	469	1,405
– Reedy Creek, Combabula & Peat Asset	529	1,061	1,590	577	898	1,475
– Non-Operated Assets	401	556	957	378	479	857
Other						
Ironbark (unconventional)	–	129	129	–	129	129
Total	**2,461**	**2,338**	**4,799**	**2,386**	**2,213**	**4,599**

1.3 1P Reserves

Proved (1P) reserves increased by 140 PJe or 5% (before production) and decreased by 115 PJe after production to a total of 2,764 PJe, when compared to the previous reporting period, due to development drilling.

As at 30 June 2019, developed 1P reserves represented 86% of total 1P reserves. The remaining 14% of 1P reserves represents wells spudded but not connected and planned wells immediately adjacent to drilled wells. 100% of 1P reserves are unconventional gas.

Origin 1P Reserves by area

1P reserves by area (PJe)	1P 30/06/2018	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	1P 30/06/2019
Australia Pacific LNG	**2,880**	**–**	**–**	**140**	**(255)**	**2,764**
Surat/Bowen (Unconventional)						
– Spring Gully & Denison Asset	553	–	–	31	(40)	545
– Condabri, Talinga & Orana Asset	1,051	–	–	16	(100)	967
– Reedy Creek, Combabula & Peat Asset	585	–	–	123	(57)	651
– Non-Operated Assets	691	–	–	(30)	(59)	601
Other						
Ironbark (unconventional)	–	–	–	–	–	–
Total	**2,880**	**–**	**–**	**140**	**(255)**	**2,764**

Origin 1P Reserves by development type

1P reserves by development type (PJe)	Developed	Undeveloped	Total 1P 30/06/2018	Developed	Undeveloped	Total 1P 30/06/2019
Australia Pacific LNG	**2,461**	**419**	**2,880**	**2,370**	**394**	**2,764**
Surat/Bowen (Unconventional)						
– Spring Gully & Denison Asset	543	10	553	496	49	545
– Condabri, Talinga & Orana Asset	988	63	1,051	935	32	967
– Reedy Creek, Combabula & Peat Asset	529	56	585	577	74	651
– Non-Operated Assets	401	290	691	363	239	601
Other						
Ironbark (unconventional)	–	–	–	–	–	–
Total	**2,461**	**419**	**2,880**	**2,370**	**394**	**2,764**

1.4 3P and 2C Contingent Resources for Origin Energy

Beetaloo

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: asx.com.au/asxpdf/20170215/pdf/43g0qhh87j71bb.

There has been no change to the contingent resource for the Beetaloo Basin in this reporting period.

Refer to the Operating and Financial Review, released on the same date as this report for details of the status of the Beetaloo asset.

Ironbark

Origin announced it had entered into an agreement to sell the Ironbark asset to APLNG in February 2019: asx.com.au/asxpdf/20190219/pdf/442r1m8ksb3fzq.

This transaction completed on 5 August 2019. No additional work has been undertaken on reserves estimates for this asset during FY2019. As a result, there is no change to the reserves reported as at 30 June 2018 for the Ironbark 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 which are 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%) and Origin's 37.5% interest in these APLNG (operated and non-operated) reserves and resources.

Reserves/resources held by APLNG (100% share)

Reserves/Resource classification	30/06/2018	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	30/06/2019
1P (proven)	7,679	–	–	372	(679)	7,372
2P (proven plus probable)	12,453	–	–	146	(679)	11,920
3P (proven plus probable plus possible)	13,310	–	–	190	(679)	12,820
2C (best estimate contingent resource)	3,249	–	–	(142)	–	3,107

Reserves/resources held by Origin (37.5% in APLNG)

Reserves/Resource classification	30/06/2018	Acquisition/ divestment	New booking/ discovery	Revisions/ extensions	Production	30/06/2019
1P (proven)	2,880	–	–	140	(255)	2,764
2P (proven plus probable)	4,670	–	–	55	(255)	4,470
3P (proven plus probable plus possible)	4,991	–	–	71	(255)	4,808
2C (best estimate contingent resource)	1,218	–	–	(53)	–	1,165

Proven (1P) reserves increased by 372 PJe (before production) in APLNG (100% share). See details above.

Proven plus probable (2P) reserves increased by 146 PJe (before production) in APLNG (100% share). See details above.

The 190 PJe increase in APLNG (100% share) 3P excluding production is due to improved understanding of estimated recovery in producing areas.

The 142 PJe decrease in APLNG (100% share) 2C is primarily due to some reclassification to reserves based on minor revisions to development planning activities. There are also a number of appraisal activities presently ongoing that if successful will convert some further resources to reserves.

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/industry/reserves.php. 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); 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, 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 Australia Pacific LNG acquired from Tri-Star in 2002 are subject to reversionary rights. If triggered, these rights will require Australia Pacific LNG to transfer back to Tri-Star a 45% 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 Australia Pacific LNG claiming that reversion has occurred. Australia Pacific LNG 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 prepared 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 of 30 June 2019 for APLNG's interests in Non-Operated assets are based on information in the NSAI report dated 31 July 2019. The data has been compiled by Mr Dan Paul Smith, a full-time employee of NSAI. Mr Dan Paul Smith 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 Simon Smith FIEAust CPEng NER RPEQ, who is a full-time employee of Origin. Mr Simon Smith is Chief Petroleum Engineer, a Qualified Petroleum Reserves and Resources Evaluator, a member of the Society of Petroleum Engineers and 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 "–".

1 Refer to section 7 of the Operating and Financial Review in this report for further information.

f. Abbreviations

bbl	barrel
Tscf	trillion standard cubic feet
CSG	coal seam gas
kbbls	kilo barrels = 1,000 barrels
ktonnes	kilo tonnes = 1,000 tonnes
mmboe	million barrels of oil equivalent
PJ	petajoule = 1 x 10^{15} joules
PJe	petajoule equivalent

g. Conversion Factors for PJe

CSG	1.038 PJ/Bscf

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 Chief Petroleum Engineer and Integrated Gas General Managers.

Five Year Financial History

A reconcilation between statutory and underlying profit measures can be found in note A1 of the Origin Consolidated Financial Statements

Income statement ($m)	**2019[1]**	**2018[1]**	**2017[1]**	**2016[1]**	**2015[1]**
Total external revenue	14,727	14,883	14,107	12,174	14,147
Underlying:					
EBITDA[2]	3,232	3,217	2,530	1,696	2,149
Depreciation and amortisation expense	(419)	(381)	(477)	(624)	(807)
Share of interest, tax, depreciation and amortisation of equity accounted investees[3]	(1,504)	(1,194)	(925)	(296)	(62)
EBIT	1,308	1,642	1,128	776	1,280
Net financing costs	(154)	(278)	(296)	(109)	(169)
Income tax benefit/(expense)	(123)	(339)	(279)	(286)	(349)
Non-controlling interests	(3)	(3)	(3)	(16)	(80)
Segment result and underlying consolidated profit	1,028	1,022	550	365	682
Impact of items excluded from segment result and underlying consolidated profit net of tax	183	(804)	(2,776)	(993)	(1,340)
Statutory:					
Profit attributable to members of the parent entity	1,211	218	(2,226)	(628)	(658)
Statement of financial position ($m)					
Total assets	25,743	24,257	25,199	28,905	33,367
Net debt/(cash)	6,084	7,289	8,364	9,470	13,273
Shareholders' equity – members/parent entity interest	13,129	11,804	11,396	14,039	12,723
Adjusted net debt/(cash)[4]	5,417	6,496	8,111	9,131	13,102
Shareholders' equity – total	13,149	11,828	11,418	14,060	14,159
Cash flow					
Net cash from operating and investing activities – total operations ($m)	1,914	2,645	1,378	1,215	(2,081)
Key ratios					
Statutory basic earnings per share (cents)[5]	68.8	12.4	(126.9)	(39.8)	(52.1)
Underlying basic earnings per share (cents)[5]	58.4	58.2	31.3	23.2	54.0
Total dividend per share (cents)[10]	25	–	–	10	50
Net debt to net debt plus equity (adjusted) (%)[4]	29	36	42	39	48

Income statement ($m)	2019(1)	2018(1)	2017(1)	2016(1)	2015(1)
Underlying EBITDA by segment ($m)					
Energy Markets(2)	1,574	1,811	1,492	1,330	1,260
Integrated Gas(6)	1,892	1,521	1,104	386	498
Contact Energy	–	–	–	61	487
Corporate	(234)	(115)	(66)	(81)	(96)
General information					
Number of employees (excluding Contact Energy)	5,360	5,565	5,894	5,811	6,922
Weighted average number of shares(5)	1,758,935,655	1,757,442,268	1,754,489,221	1,578,213,157	1,263,960,708
Integrated Gas(7)					
2P reserves (PJe)	4,599	4,799	5,788	6,277	6,260
Product sales volumes (PJe)	254	255	334	228	154
• Liquified Natural Gas (Kt)	3,257	3,213	2,668	659	–
• Natural gas and ethane (PJ)	73	77	163	168	128
• Crude oil (kbbls)	–	–	1,209	1,629	1,754
• Condensate/naphtha (kbbls)	–	–	1,615	1,403	1,581
• LPG (kT)	–	–	144	127	147
Production volumes (PJe)	255	254	323	232	148
Energy Markets					
Generation (MW) – owned	6,029	5,981	6,011	6,011	5,994
Generation dispatched (TWh)	20.28	20.58	20.30	20.10	19.94
Number of customers ('000)	4,192	4,181	4,210	4,217	4,266
• Electricity	2,639	2,666	2,716	2,741	2,801
• Natural gas	1,191	1,145	1,112	1,089	1,083
• LPG	362	370	382	387	382
Electricity (TWh)(8)	36.2	37.5	39.7	38.1	37.3
Natural gas (PJ)(9)	222.0	214.4	187.9	167.1	134.7
LPG (kT)	426	450	448	458	415

(1) Includes discontinued operations and assets held for sale unless stated otherwise.

(2) FY2019 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; FY2017 $(141) million; FY2016 $(139) million and FY2015 $(125) 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) Prior period adjusted for the bonus element (discount to market price) of the September 2015 rights issue.

(6) The Integrated Gas segment combines the former Exploration & Production and Australia Pacific LNG segments, as announced in August 2015.

(7) 2018 excludes Lattice Energy (continuing operations basis shown).

(8) FY2015 was restated to better reflect the recognition of volumes, revenues and costs associated with feed-in volumes from solar customers with no impact on gross profit.

(9) Osborne gas sales were reclassified as internal due to new operational agreement. As a result, FY2015 external sales volumes, revenues and costs were revised with no impact on gross profit.

(10) Dividends represent the interim and final dividends determined for each FY. This includes the final dividend for FY2019 determined on 22 August 2019 to be paid on 27 September 2019. The amounts paid within each FY are 10c, 0c, 0c, 35c and 50c repectively.

Glossary and Interpretation

Financial measures

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

This document includes certain 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 4.3. The key Non-IFRS Financial Measures included in this report are defined below.

Term	Meaning
Adjusted Net Debt	Net Debt adjusted to remove fair value adjustments on hedged borrowings.
Adjusted Net Debt/Adjusted Underlying EBITDA	Calculated as Adjusted Net Debt/(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.
Current period	Full year ended 30 June 2019.
Free Cash Flow	Net cash from operating and investing activities (excluding major growth projects), less interest paid.
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 4.3 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.
Prior period	Full year ended 30 June 2018.
Proportionate Free Cash Flow	Origin's Free Cash Flow plus share of APLNG Free Cash Flow, excluding transactions between Origin and APLNG shareholders.

Term	Meaning
Share of ITDA	Origin's share of equity accounted investees interest, tax, depreciation and amortisation.
Total Segment Revenue	Total revenue for the Energy Markets, Integrated Gas, Corporate and discontinued operations segments, including inter-segment sales, as disclosed in note A1 of the Origin Consolidated Financial Statements.
Underlying earnings per share	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.
Underlying share of ITDA	Share of ITDA (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	Underlying ROCE (Return on Capital Employed) is 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 year. 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
1P reserves	Proved Reserves are those reserves which analysis of geological and engineering data can be estimated with reasonable certainty to be commercially recoverable. There should be at least a 90 per cent probability that the quantities actually recovered will equal or exceed the estimate.
2P reserves	The sum of Proved plus Probable Reserves. Probable Reserves are those additional reserves which analysis of geological and engineering data indicate are less likely to be recovered than Proved Reserves but more certain than Possible Reserves. There should be at least a 50 per cent possibility that the quantities actually recovered will equal or exceed the best estimate of Proved plus Probable Reserves (2P).
3P reserves	Proved plus Probable plus Possible Reserves. Possible Reserves are those additional Reserves which analysis of geological and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have at least a 10 per cent probability of exceeding the sum of Proved plus Probable plus Possible (3P), which is equivalent to the high estimate scenario.
2C resources	The best estimate quantity of petroleum estimated to be potentially recoverable from known accumulations by application of development oil and gas projects, but which are not currently considered to be commercially recoverable due to one or more contingencies. The total quantities ultimately recovered from the project have at least a 50 per cent probability to equal or exceed the best estimate for 2C contingent resources.
AEMO	Australian Energy Market Operator
APLNG	Australia Pacific LNG Pty Limited
Boe	Barrel of oil equivalent
C&I	Commercial and Industrial
Discounting	For Energy Markets, discounting refers to offers made to customers at a reduced price to the regulated price cap (if applicable) or Origin's published tariffs.
DMO	Default Market Offer
E&A	Exploration and appraisal
ERP	Enterprise resource planning
GJ	Gigajoule = 10^9 joules

Term	Meaning
JCC	Japan Customs-cleared Crude (JCC) is the average price of crude oil imported to Japan. A JCC slope is one of the most common ways to price LNG contracts in Japan and other firstv -generation buyers in Korea and Taiwan. By extension, most of the historical term contracts out of Malaysia, Australia and Indonesia were based on JCC. APLNG's long term LNG sales contracts are priced based on the JCC index.
JKM	Japan Korea Marker
Joule	Primary measure of energy in the metric system
kT	kilotonnes = 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
Scope 1 emissions	Direct emissions driven by Origin's owned and operated business operations, in particular electricity generation and gas development.
Scope 2 emissions	Emissions from the electricity that Origin consumes to undertake activities.
Scope 3 emissions	Indirect emissions through Origin's value chain that are not owned or controlled by Origin.
Sinopec	When referring to the off-taker under the LNG Sale and Purchase Agreement (SPA) with APLNG, means China Petroleum & Chemical Corporation which has appointed its subsidiary Unipec Asia Co. Ltd. to act on its behalf under the LNG SPA.
SME	Small to Medium Enterprise
TRIFR	Total Recordable Incident Frequency Rate
TW	Terawatt = 10^{12} watts
TWh	Terawatt hour = 10^9 kilowatt hours
VDO	Victorian Default Offer
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 ended 30 June 2018, unless specifically stated otherwise.

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. Origin's shareholding in APLNG 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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