



To	Company Announcements Office	Facsimile	1300 135 638
Company	ASX Limited	Date	18 February 2016
From	Helen Hardy	Pages	60
Subject	<b>Investor Presentation for Half Year Results</b>		

Please find attached the investor presentation relating to Origin Energy's Results for the half year ended 31 December 2015.

Regards

Helen Hardy  
Company Secretary

02 8345 5000



# 2016 HALF YEAR RESULTS ANNOUNCEMENT

**Half Year Ended 31 December 2015**

**Grant King**, Managing Director

**Karen Moses**, Executive Director, Finance and Strategy

**Frank Calabria**, CEO Energy Markets

**David Baldwin**, CEO Integrated Gas

18 February 2016

# Important Notices



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# Outline



- |                           |                |
|---------------------------|----------------|
| 1. Performance Highlights | Grant King     |
| 2. Financial Review       | Karen Moses    |
| 3. Operational Review     |                |
| Energy Markets            | Frank Calabria |
| Integrated Gas            | David Baldwin  |
| 4. Outlook                | Grant King     |
| 5. Appendix               |                |

# 1. PERFORMANCE HIGHLIGHTS

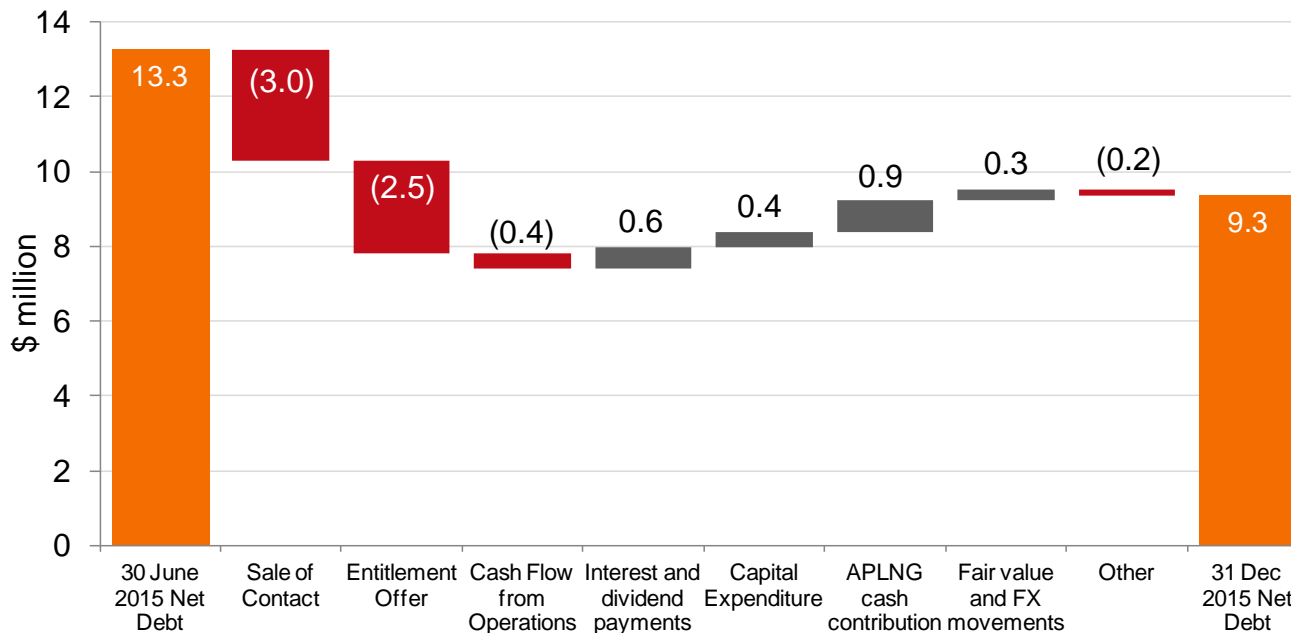
**Grant King**, Managing Director

- **On track to deliver debt reduction and cash preservation initiatives to further build resilience to prolonged low oil prices**
  - \$5.5 billion of debt reduction achieved, targeting net debt below \$9 billion in FY2017
  - Reducing operating and capital costs across the business
  - Asset sales commenced, with sale of Mortlake Terminal Station announced
- **Strong result from Energy Markets drives steady Origin EBITDA despite falling oil prices**
  - Energy Markets up \$100 million – expanded Natural Gas volumes and margins, stable Electricity contribution and lower operating costs
  - Integrated Gas down \$136 million – exploration write-off of \$53 million (non-cash), lower liquids prices, lower production
- **APLNG produced first LNG and commenced LNG shipments, including to Sinopec**
  - 5 cargoes shipped, including 3 to Sinopec
  - Increasing confidence in upstream production and downstream liquefaction capacity
  - Remaining cash contribution until APLNG is self funding is ~\$1 billion, in line with previous guidance
  - \$1 billion of cost reduction initiatives implemented 6 months early to reduce APLNG Upstream cost structure and continuing focus on further reducing APLNG's breakeven costs by A\$3-5/boe

## \$5.5 billion debt reduction initiatives, targeting net debt below \$9 billion in FY2017



Movement in Net Debt - 30 June 2015 to 31 December 2015



Origin implemented a series of measures that have reduced net debt to \$9.3 billion at 31 December 2015

- ✓ Sale of Contact reduced net debt by \$3 billion
- ✓ \$2.5 billion Entitlement Offer

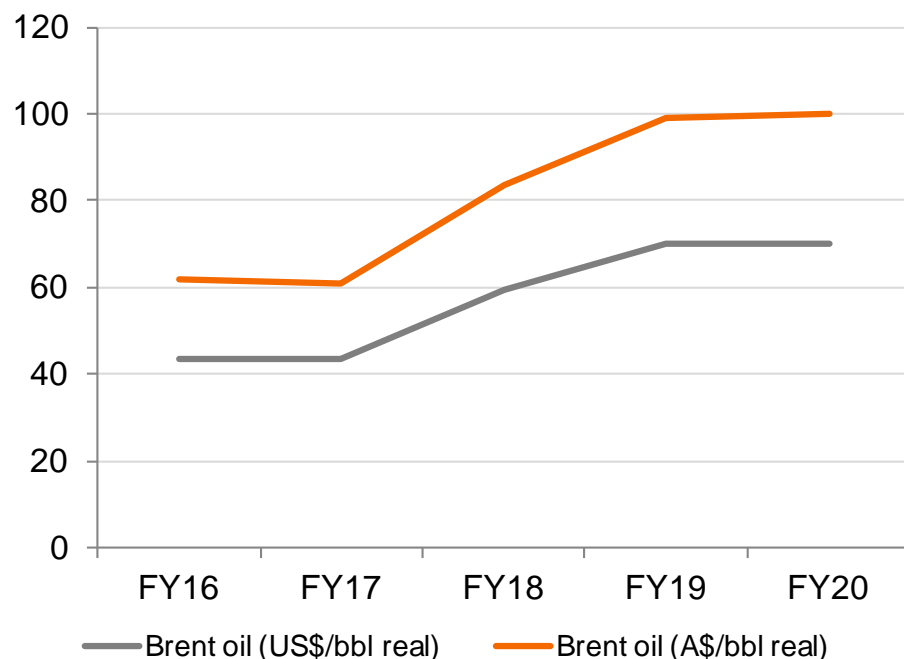
Targeting net debt below \$9 billion in FY2017

- ✓ On track to deliver at least \$800 million in asset sales

## Cash preservation initiatives, combined with cash generation from existing businesses, increase resilience to lower oil prices for longer



Origin's Brent Oil Price Assumptions  
(used for planning purposes and impairment considerations)

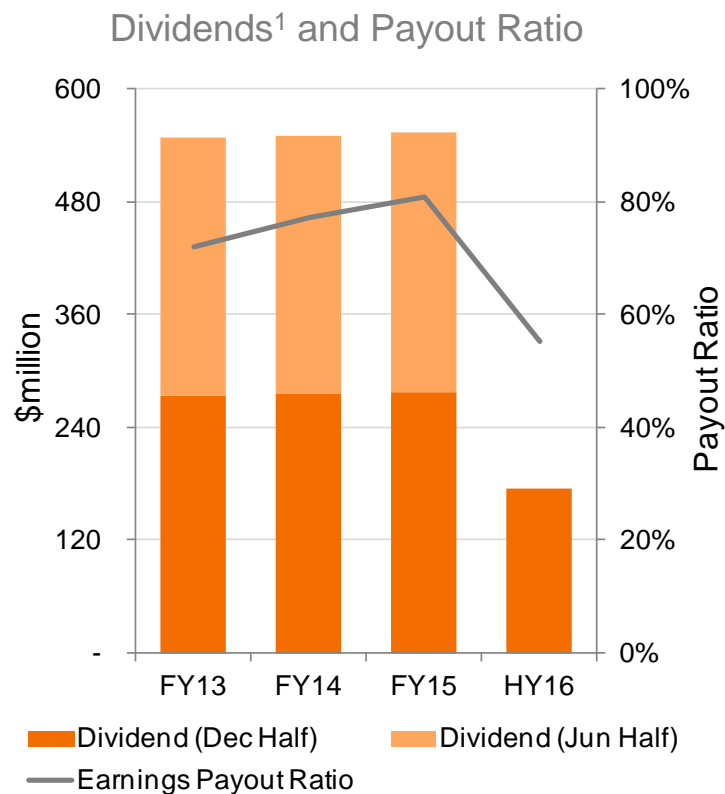


- ✓ Reduced dividends
- ✓ Capex reductions
- ✓ Opex reductions
- ✓ Reduce APLNG's breakeven costs
- ✓ Decision to exit international exploration and geothermal activities and large scale IT projects, resulting in impairments

**Oil put options for FY2017 further reduce risks to Origin if oil prices remain below US\$40/bbl (or A\$55/bbl)<sup>1</sup>**



**Consistent with the announced intention during last year's Entitlement Offer to reduce the annual dividend to 20 cps on expanded capital base, an unfranked interim dividend of 10 cps has been determined for the first half**



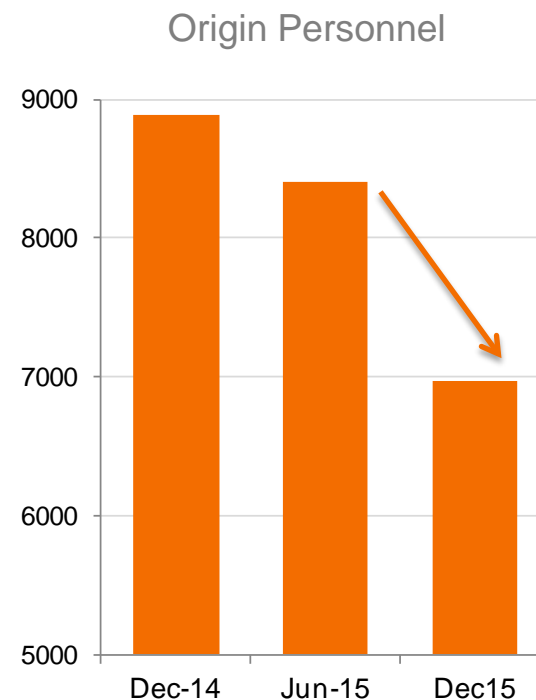
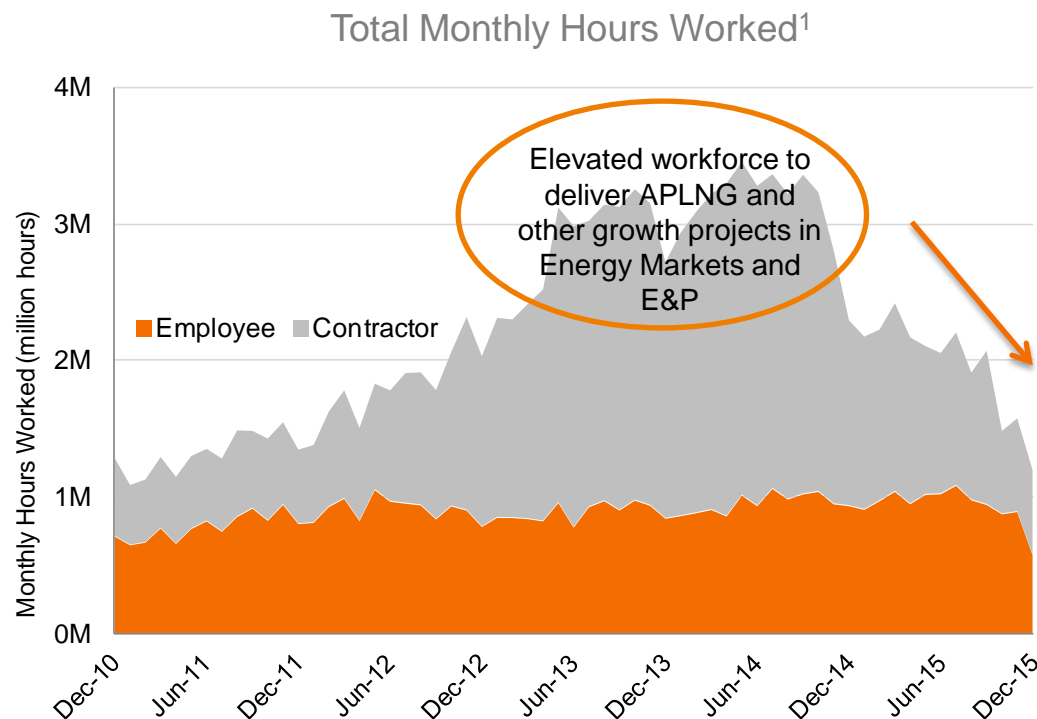
- Reduction in annual dividend from 50 cents to 20 cents on an expanded capital base preserves around \$210 million of cash flow
- Dividend represents a payout ratio of 55% of Underlying EPS<sup>2</sup> and is supported by the existing businesses without reliance on distributions from APLNG
- Oil prices have fallen to levels well below expected prices at the time of the Entitlement Offer

**Origin will pursue all opportunities to achieve ongoing debt reduction. Should the current low oil price environment persist through the second half of FY2016, which puts at risk ongoing debt reduction, the Company will suspend dividends until appropriate debt levels are achieved.**

(1) Dividends determined in the period

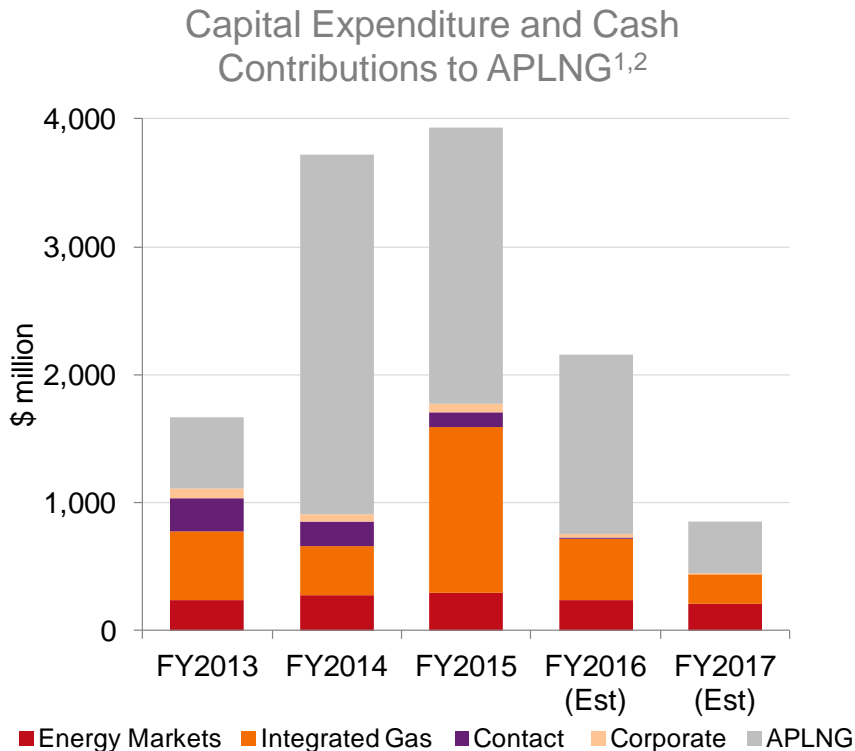
(2) Including Contact

## As acquisition and development activities have diminished, the cost of providing functional support to the businesses is being reduced



- Over last 12 months Origin has reduced headcount by over **1,900** comprising:
  - Over **1,400 operational positions** in Energy Markets and Integrated Gas as acquisition and development activities complete
  - **480 functional roles** that supported the operational workforce in HSE, human resource, IT, finance
    - On track to achieve reduction of at least **800 functional roles** by end FY2016

# Savings from headcount and capex reductions will contribute to reduced operating and capital costs in Energy Markets and Integrated Gas



- Reduction in **operational positions** will contribute to cost saving commitments in Energy Markets and Integrated Gas
  - Energy Markets: **\$100m** reduction in Cost to Serve and Generation Opex (\$61m achieved to date) and **\$50m** reduction in capex (\$16m achieved to date) by end FY2016
  - Integrated Gas: **\$1b** per annum cost reduction initiatives in APLNG Upstream total cost structure **implemented**
  - Further cost reduction opportunities being progressed

Reduction in **functional positions** will deliver further reductions primarily in Energy Markets and Integrated Gas:

- **\$200m** reduction in operating and capital costs

Expected cash contributions to APLNG remain in line with previous guidance of \$1.8b from 1 July 2015 until APLNG is self funding<sup>3</sup>, with \$856m contributed in H1 FY2016

## Demonstrated ability to take out costs

(1) Forward looking numbers are based on management's estimates of expenditure (committed and likely to proceed). All numbers exclude capitalised interest. Assumes no capital expenditure savings from sale of assets.

(2) Forward looking APLNG numbers represent Origin's expected cash contributions (net of MRCPS interest income), rather than Origin's share of total APLNG capital expenditure; based on Origin's shareholding in APLNG of 37.5%.

(3) Based on a Train 2 start date of mid H1 FY2017.

**With APLNG now in production opportunities in the near term are being identified to reduce pre-production estimates of breakeven costs by A\$3-5/boe**



### Pre-production estimates of breakevens

Cash cost (targeted average steady state FY17-23) <sup>1,2</sup>	A\$	A\$/boe <sup>3</sup>	US\$/boe <sup>4</sup>
Operating expenses	\$1.5b	\$22	\$15
Capital expenditure – Sustain	\$1.2 - \$1.4b	\$17-\$20	\$12-\$14
Capital expenditure – E&A	\$100m	\$1	\$0.7
Less: Domestic revenue	(\$400m)	(\$7)	(\$5)
<b>Operating breakeven</b>	<b>\$2.4–\$2.6b</b>	<b>\$33-\$36</b>	<b>\$23-\$25</b>
Project finance interest	\$450m	\$7	\$5
<b>Debt reduction commences</b>	<b>\$2.8-\$3.0b</b>	<b>\$40-\$43</b>	<b>\$28-\$30</b>
Project finance principal	\$1b	\$14	\$10
<b>Distribution breakeven</b>	<b>\$3.8-\$4.0b</b>	<b>\$54-\$57</b>	<b>\$38-\$42</b>

### Now that APLNG is in production

- Opportunities in the short term to further reduce the operational break even:
  - Short term cost savings as a result of cost deflation and further efficiencies in current low oil price environment
  - Current field performance is expected to result in production exceeding contract commitments which could be monetised, or alternatively Sustain development could be reduced
- Oil put options for FY2017 provide a partial offset to any additional contributions Origin may be required to make to APLNG should oil prices be below US\$40/bbl (or A\$55/bbl) in FY2017

**Given the long term nature of the APLNG investment, Origin remains satisfied with the carrying value of its investment, notwithstanding the current low oil price environment**

(1) Cash distributions received in FY2017 from APLNG are expected to be less than those expected in subsequent years. This is due to initial timing of half yearly distributions resulting in the last 3 months of FY2017 cash flow distributed in the following year, and the requirement to fund the project finance reserve account in FY2017

(2) At low oil prices, distribution from the downstream project may be restricted if certain project finance metrics are not satisfied

(3) Based on LNG sales volumes converted to barrels of oil equivalent with adjustment for slope of contracts

(4) Converted at an average AUD/USD \$0.70

# Entered into sale agreement for Mortlake Terminal Station for \$110 million, continuing to target sales of at least \$800 million



## Infrastructure and wind assets

- Agreement to sell Mortlake Terminal Station to AusNet Services for **\$110 million** (announced on 12 February 2016)
  - Represents 12.9x FY2017 EBITDA multiple
  - ~\$25 million pre-tax gain on sale
- Preparations continue for planned sale of Mortlake Pipeline, Darling Downs Pipeline, Cullerin Wind Farm and Stockyard Hill Wind Farm development site, potentially accompanied by offtake agreements



## Cooper and Perth Basin Assets

- Expressions of interest received following release of flyers in December 2015



**Decision to exit some activities has resulted in a \$222 million impairment of geothermal and IT assets and an additional \$22 million in upstream assets, taking recent impairments for upstream assets to \$412 million**



Impairments (\$m)	Post-tax impairment	
	HY2016 <sup>1</sup>	FY2015
<b>Upstream</b>		
Cooper Basin	-	180
Bass Basin	43	122
New Zealand onshore	-	53
Otway Basin	-	35
Surat Basin	(21)	-
<b>Upstream Total</b>	<b>22</b>	<b>390</b>
Geothermal interests	157	
IT projects	65	50
<b>Total</b>	<b>244</b>	<b>440</b>

- As flagged at last year's Entitlement Offer, geothermal activities will be exited - **\$157m**
- Deferral of large scale IT projects - **\$65m**
- Further **\$22m** due to:
  - reduced oil prices and lower near term reservoir productivity in Bass Basin
  - reversal of a prior impairment of Surat Basin asset as a result of its sale
- Origin undertook a significant review of Upstream assets in August 2015 and recognised a total impairment of **\$390m** in FY2015

**A \$53 million (before and after tax) expense has also been taken through Underlying EBITDA reflecting write-off of exploration in Vietnam following decision to discontinue international exploration<sup>2</sup>**

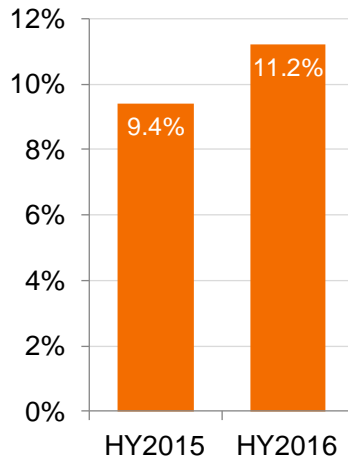
(1) Impairment analysis based on a long term Brent oil price of US\$70/bbl (real) from FY2019

(2) Except in New Zealand

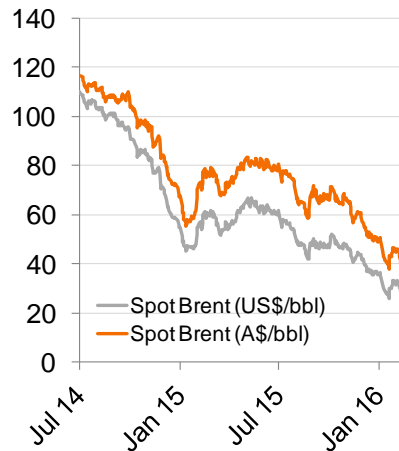
# Stable results driven by strong Energy Markets business with fall in oil price having a modest impact on results



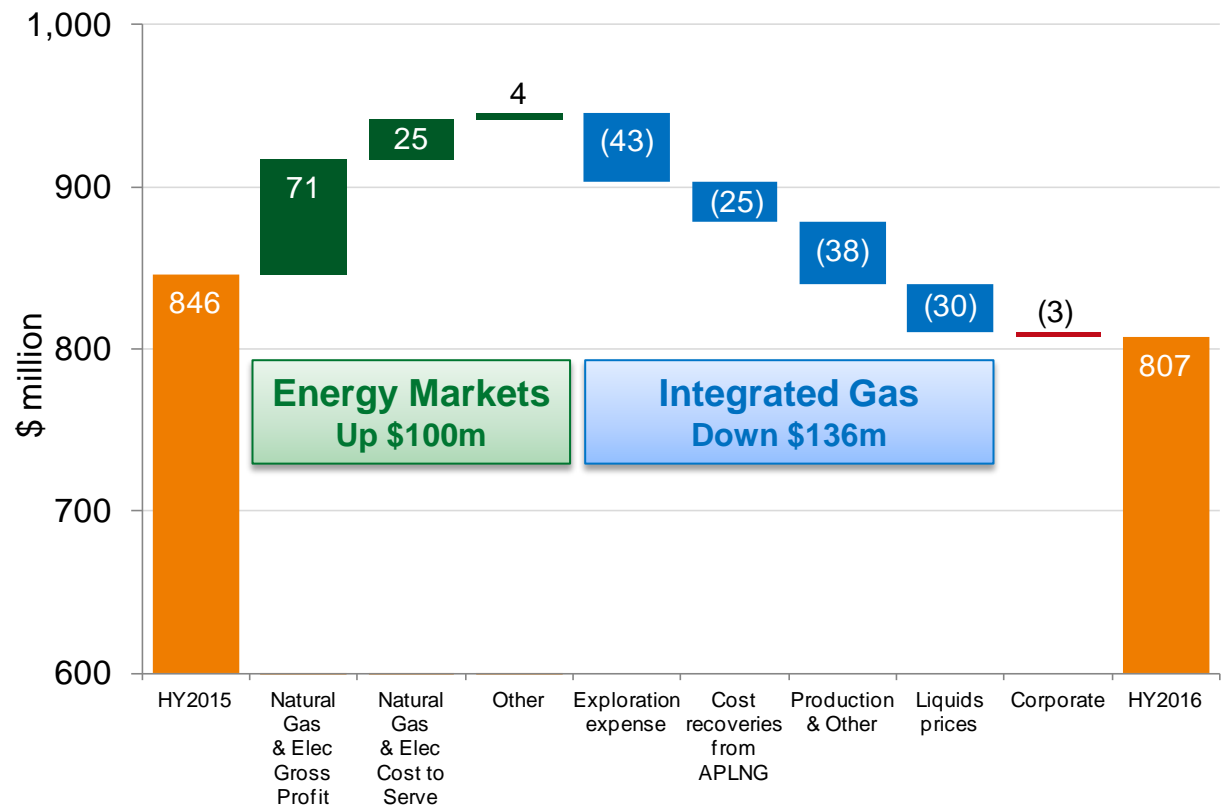
Energy Markets EBIT/Sales Margin



Brent Oil Spot Curves

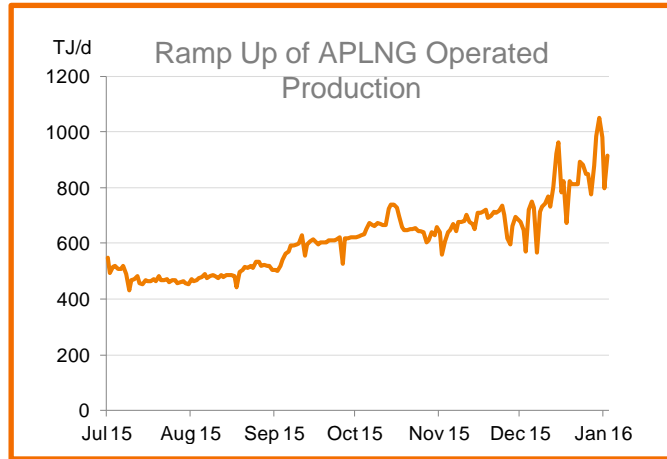


EBITDA Bridge – Continuing Operations





# APLNG has commenced LNG production and shipments, with increasing confidence in upstream production and downstream liquefaction capacity



- ✓ APLNG Upstream complete, Train 1 in production
- ✓ **5 cargoes** shipped, including **3 to Sinopec**
- ✓ Increasing confidence in upstream production and downstream liquefaction capacity
- ✓ Origin's remaining contribution to APLNG from January 2016 until APLNG is self funding is ~\$1 billion, consistent with previous guidance<sup>1</sup>
  - Upward pressure on funding due to oil price and train delay mitigated through cost reductions
- ✓ \$1 billion reduction in upstream cost implemented 6 months early and continuing focus on further reducing APLNG's breakeven by **A\$3-\$5/boe**

(1) Previous guidance of Origin's remaining contribution to APLNG was \$1.8 billion from 1 July 2015 less \$856 million contributed in the 6 months to 31 December 2015, based on a Train 2 start date of mid H1 FY2017



## 2. FINANCIAL REVIEW

**Karen Moses**, Executive Director, Finance and Strategy

# 2016 Half Year Financial Highlights

(Unless otherwise stated, information is presented on a continuing operations basis to exclude Contact Energy)



\$ million	HY2016	HY2015	Change
<b>Statutory (Loss)* - total operations</b>	<b>(254)</b>	<b>(25)</b>	<b>916%</b>
<b>Underlying Profit* - total operations</b>	<b>254</b>	<b>346</b>	<b>(27%)</b>
<b>Underlying Profit* - continuing operations</b>	<b>243</b>	<b>308</b>	<b>(21%)</b>
Underlying EBITDA - Energy Markets	721	621	16%
Underlying EBITDA - Integrated Gas	137	273	(50%)
<b>Underlying EBITDA* - continuing operations</b>	<b>807</b>	<b>846</b>	<b>(5%)</b>
<b>Underlying EBITDA* - total operations</b>	<b>868</b>	<b>1,080</b>	<b>(20%)</b>
Cash Flow from operating activities— continuing operations	397	826	(52%)
Capital Expenditure <sup>1</sup> – continuing operations	441	1,193	(63%)
Origin's Net Cash Contributions to APLNG <sup>2</sup>	856	1,412	(39%)
<b>Net Debt</b>	<b>9.3b</b>	<b>13.3b<sup>3</sup></b>	<b>(30%)</b>
Interim Dividend Unfranked	10 cps		

\* Refer to Appendix for Glossary.

(1) Based on cash flow amounts rather than accrual accounting amounts; includes growth and stay-in-business capital expenditure, capitalised interest and acquisitions.

(2) Via the issue of Mandatorily Redeemable Cumulative Preference Shares (MRCPS) by APLNG to Origin net of MRCPS interest income

(3) As at 30 June 2015 (includes Contact)

## Underlying EBITDA down \$39 million to \$807 million

## Underlying EBIT down \$74 million to \$443 million



(\$ million)	Underlying EBITDA			Underlying EBIT		
	HY2016	HY2015	Change	HY2016	HY2015	Change
Energy Markets	721	621	100	557	470	87
Integrated Gas	137	273	(136)	(63)	95	(158)
Corporate	(51)	(48)	(3)	(51)	(48)	(3)
<b>Total continuing operations</b>	<b>807</b>	<b>846</b>	<b>(39)</b>	<b>443</b>	<b>517</b>	<b>(74)</b>
Contact Energy	61	234	(173)	41	142	(101)
<b>Total operations</b>	<b>868</b>	<b>1,080</b>	<b>(212)</b>	<b>484</b>	<b>659</b>	<b>(175)</b>

### Energy Markets EBITDA up \$100m:

- Continued growth in Natural Gas volumes and margins
- Stable Electricity contribution
- Improvement in cost to serve

### Depreciation & Amortisation and ITDA up \$35m:

- Increased share of APLNG ITDA due to increased D&A associated with volumes sold to QGC

### Integrated Gas EBITDA down \$136m:

- Increased exploration expense
- Lower liquids prices and sales volumes
- Lower cost recovery from Australia Pacific LNG
- Impact of low oil price on APLNG oil-linked sales to QGC

# Reconciliation of Statutory Loss to Underlying Profit



(\$ million)	HY2016	HY2015	Change
<b>Statutory (Loss) – total operations</b>	<b>(254)</b>	<b>(25)</b>	<b>916%</b>
Items Excluded from Underlying Profit			
Fair value and foreign exchange movements <sup>1</sup>	(82)	(369)	(78%)
LNG items pre revenue recognition <sup>1</sup>	(154)	(68)	126%
Disposals, impairments and business restructuring <sup>1</sup>	(272)	66	(512%)
Total Items Excluded from Underlying Profit	(508)	(371)	37%
<b>Underlying Profit – total operations</b>	<b>254</b>	<b>346</b>	<b>(27%)</b>
Underlying Profit – discontinued operations	11	38	(71%)
<b>Underlying Profit – continuing operations</b>	<b>243</b>	<b>308</b>	<b>(21%)</b>

## Fair value and foreign exchange movements

- Non-cash loss due to depreciation of AUD (-\$79m)
- Termination of interest rate swaps following early repayment of Uranquinty project finance (-\$29m)
- Financial instruments impacting Energy Markets (+\$45m)

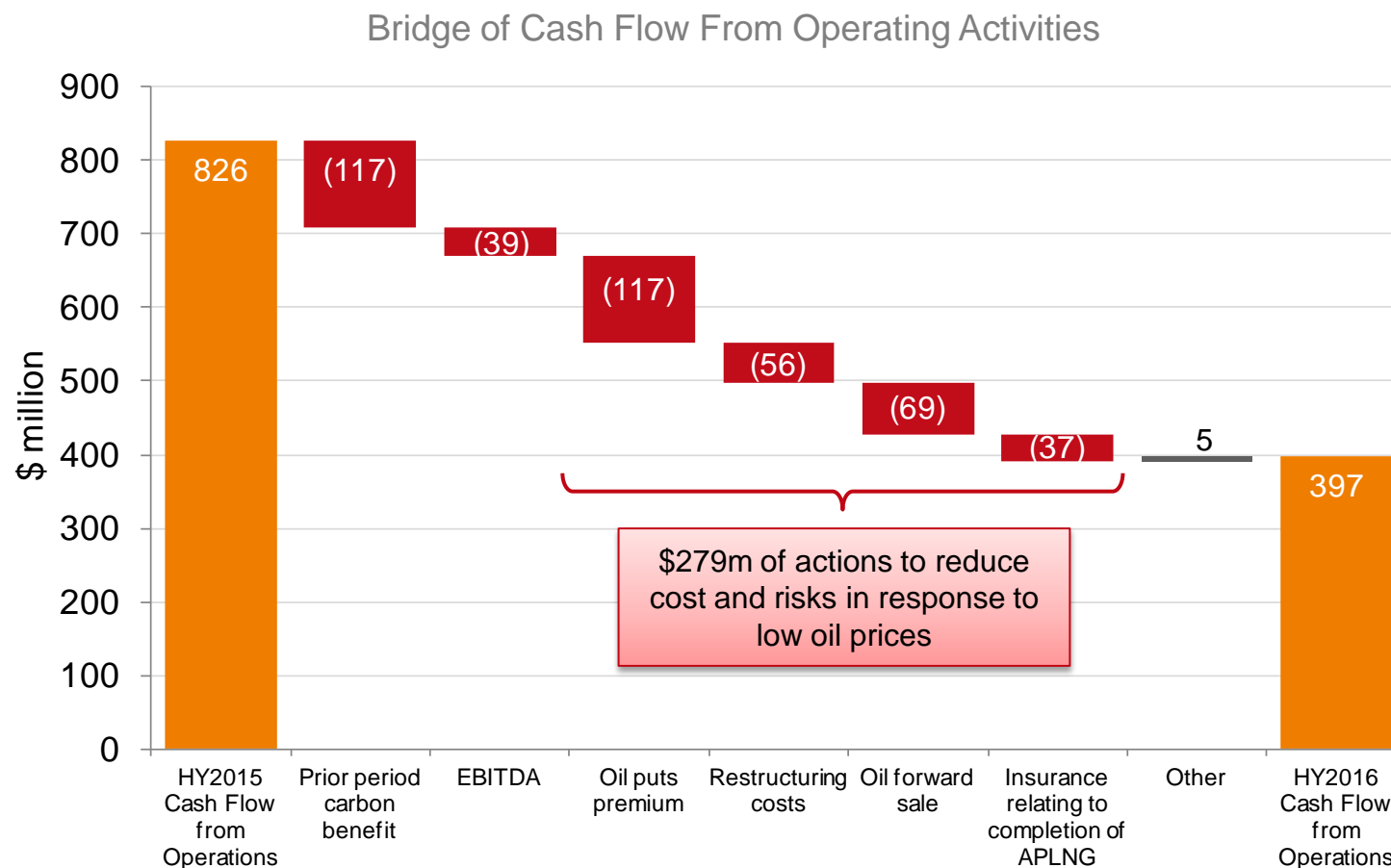
## LNG items pre revenue recognition

- Origin's net financing costs (-\$116m)
- Pre-production costs unable to be capitalised (-\$38m)

## Disposals, impairments and business restructuring

- Impairment of BassGas (-\$43m), International Development assets in Chile and Indonesia (-\$157m) and IT project costs (-\$65m)
- Reversal of prior impairment of Surat Basin asset as a result of sale (+\$21m) and gain on sale of Contact Energy (+\$14 million); and
- Business restructuring costs (-\$42 million) associated with Origin's cost reduction programs.

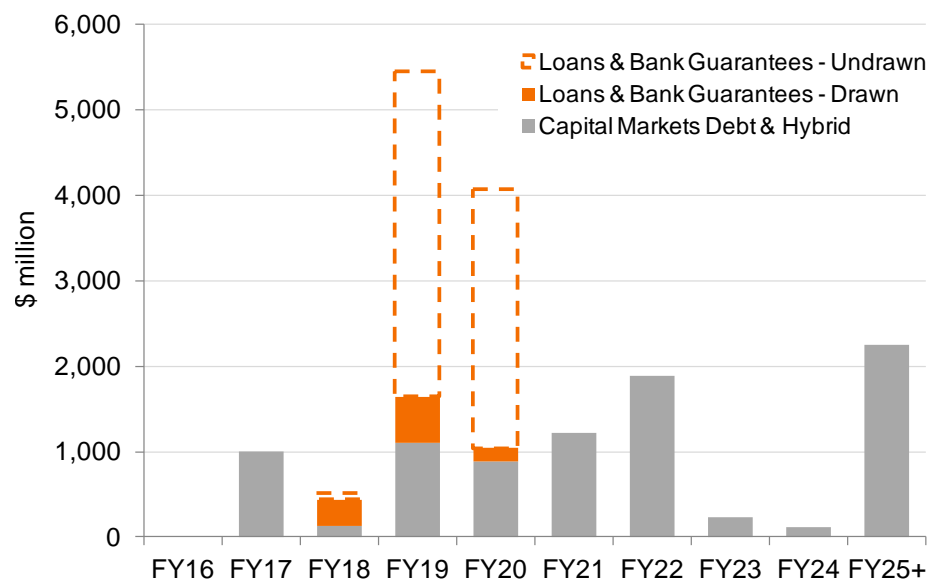
# Cash flow from operating activities down \$429 million to \$397 million, reflecting impacts of actions to reduce cost and risks in response to low oil prices



## Over the 6 months Origin has reduced debt, increased liquidity and improved serviceability



Origin Debt & Bank Guarantee Pro-forma Maturity Profile as at 31 December 2015<sup>1</sup>



- \$5.5 billion of debt reduction achieved, targeting net debt below \$9 billion in FY2017
- Liquidity increased to \$6.8 billion<sup>2</sup> of undrawn committed bank facilities and cash
- There are no financial covenants or conditions to draw down under Origin's existing debt facilities and hybrid instruments that are linked to credit ratings
- Origin confirms intention to redeem the A\$900 million Subordinated Notes by the first call date in December 2016

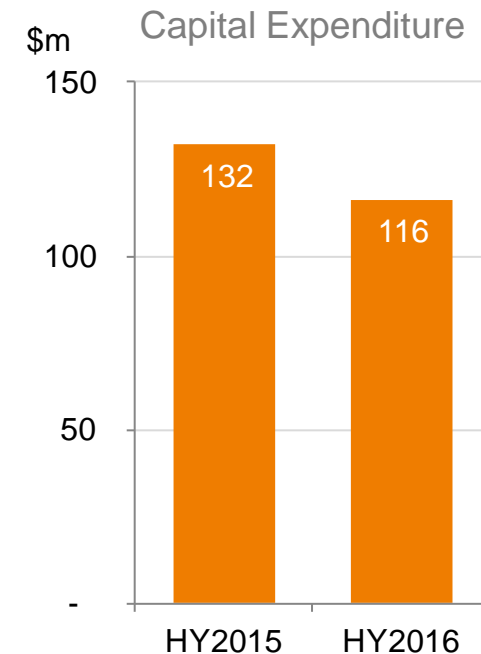
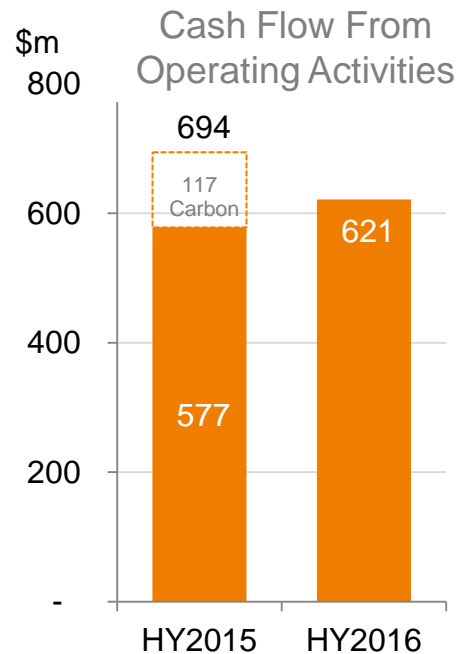
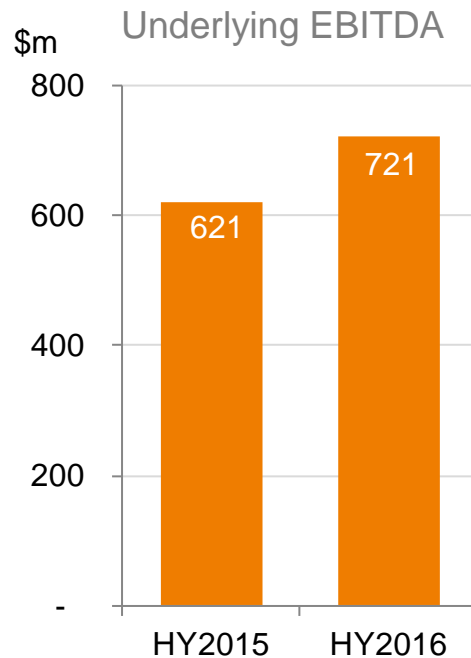
**Post completion of APLNG, cash flows from existing businesses are expected to be sufficient to service all interest, dividends and planned capital expenditure without reliance on distributions from APLNG**

(1) Assumes A\$900 million Subordinated Notes are redeemed via debt by the first call date in December 2016

(2) Excludes bank guarantees

# **3. OPERATIONAL REVIEW – Energy Markets**

**Frank Calabria, CEO Energy Markets**



- Underlying EBITDA up \$100 million or 16% to \$721 million due to increased Natural Gas volumes and margins, stable electricity contribution and reduction in cost to serve
- Underlying EBIT margin up from 9.4% to 11.2%
- Cash flow from operating activities down 11% to \$621 million due to prior period working capital benefit from carbon
- \$100 million cost reduction and \$50 million reduction in capital expenditure on track
- Improved customer experience, expanded digital capability and held customer position through cost effective channels
- Driving the transition to a new energy and renewable future with a 42% increase in Solar sales, first Tesla battery sales and actively pursuing renewable opportunities

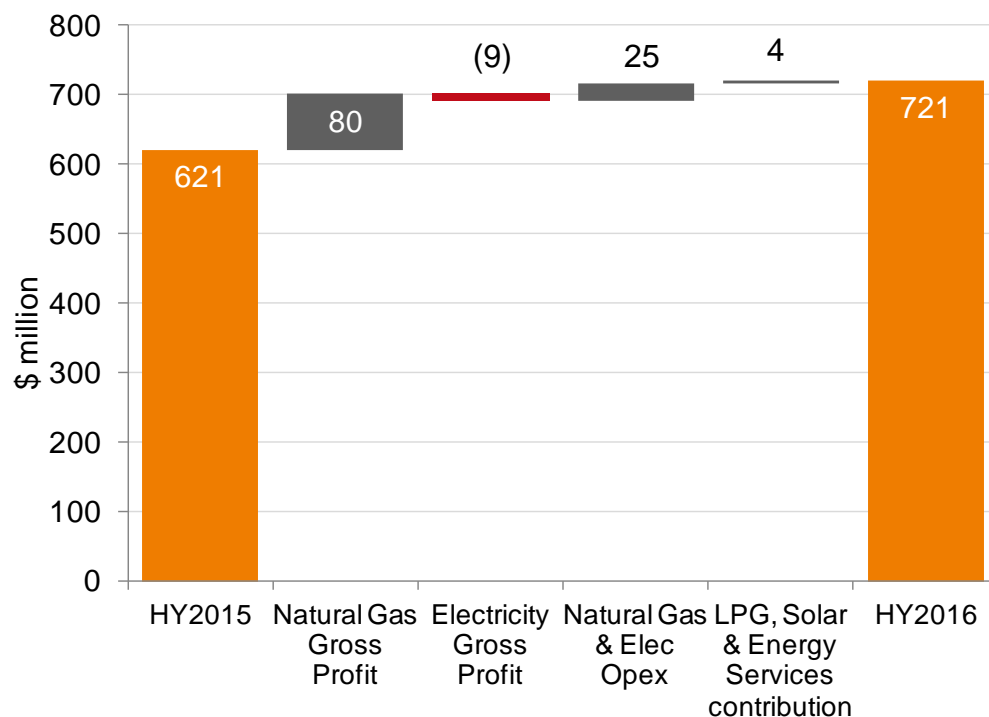


## EBITDA up \$100 million to \$721 million

### Growing margins while reducing costs

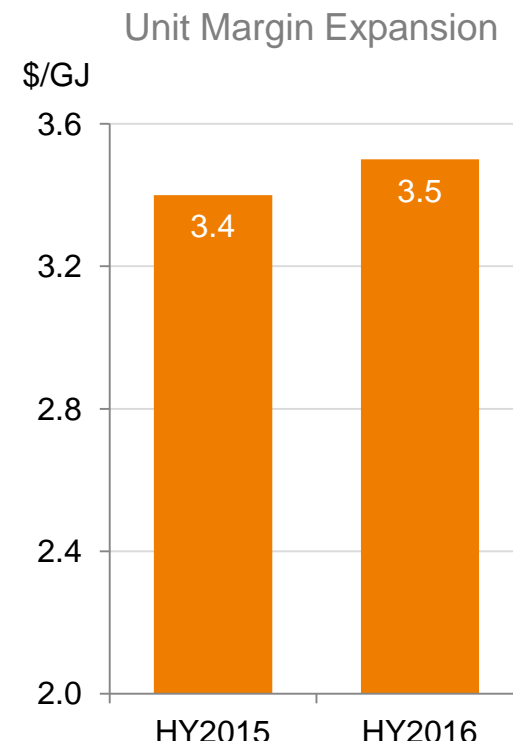
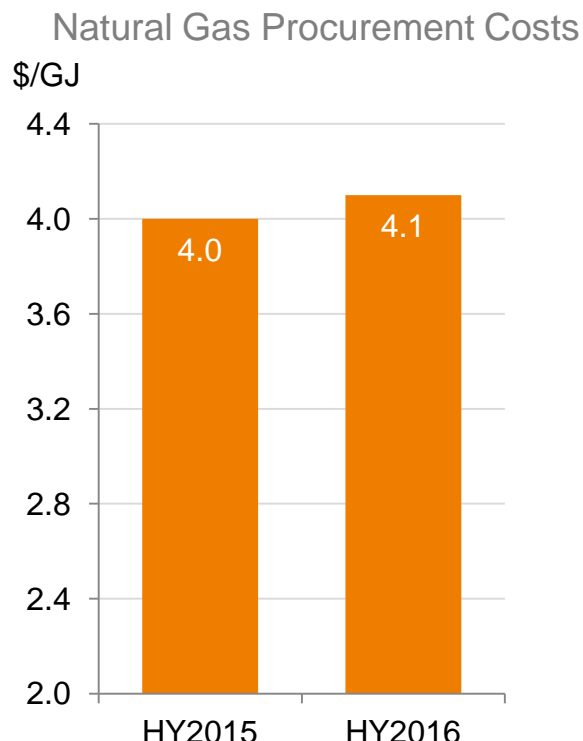
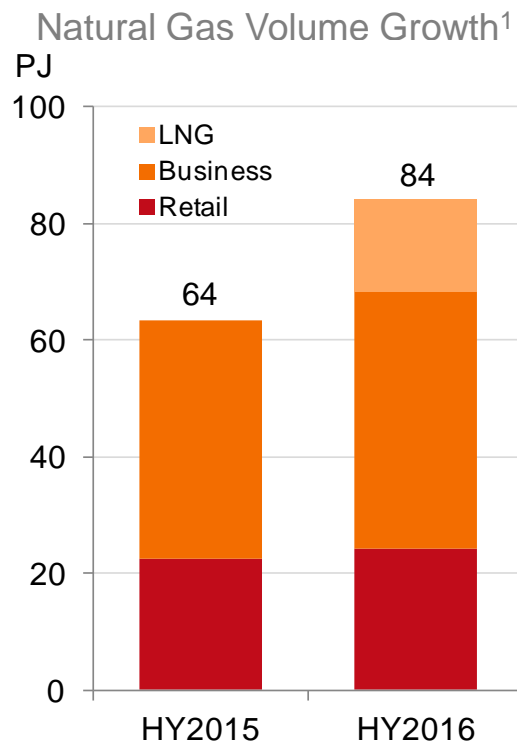


Energy Markets Underlying EBITDA Bridge



- Growing Gross Profit from Natural Gas and Electricity (+\$71m):
  - Natural Gas Gross Profit up \$80m
  - Electricity Gross Profit stabilised (-\$9m)
- Lower Cost to Serve of \$6 per customer (+\$25m)
- LPG, Solar & Energy Services EBITDA (+\$4m)

# Increase in Natural Gas Gross Profit of \$80 million from growing volumes and margin expansion

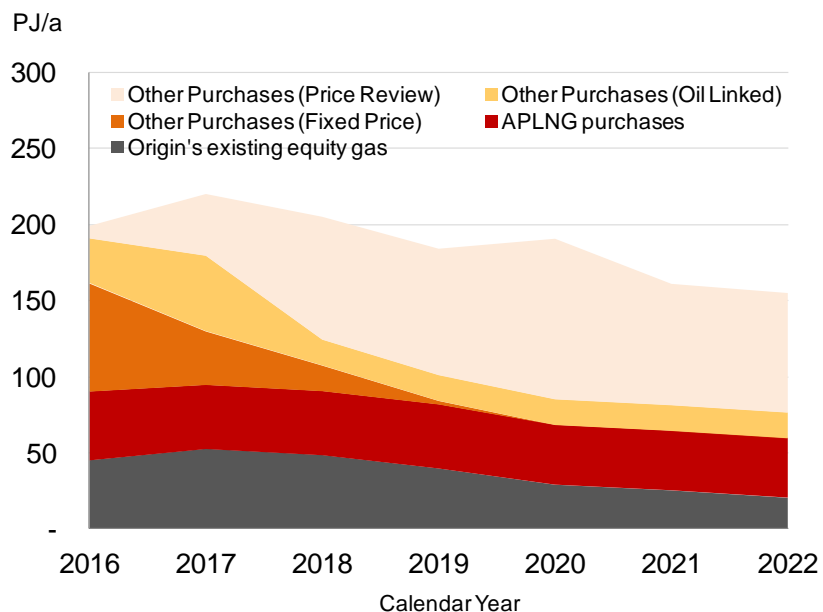


- Volumes up across all segments (+\$70m)
- Retail volumes +2 PJ from increased customer accounts and cooler winter
- Business volumes +4 PJ
- Sales to other LNG projects +15 PJ
- Expanding margins to \$3.5/GJ (+\$10m)
- Retail margin management
- Origin's energy procurement costs remained stable in a market responding to higher wholesale prices

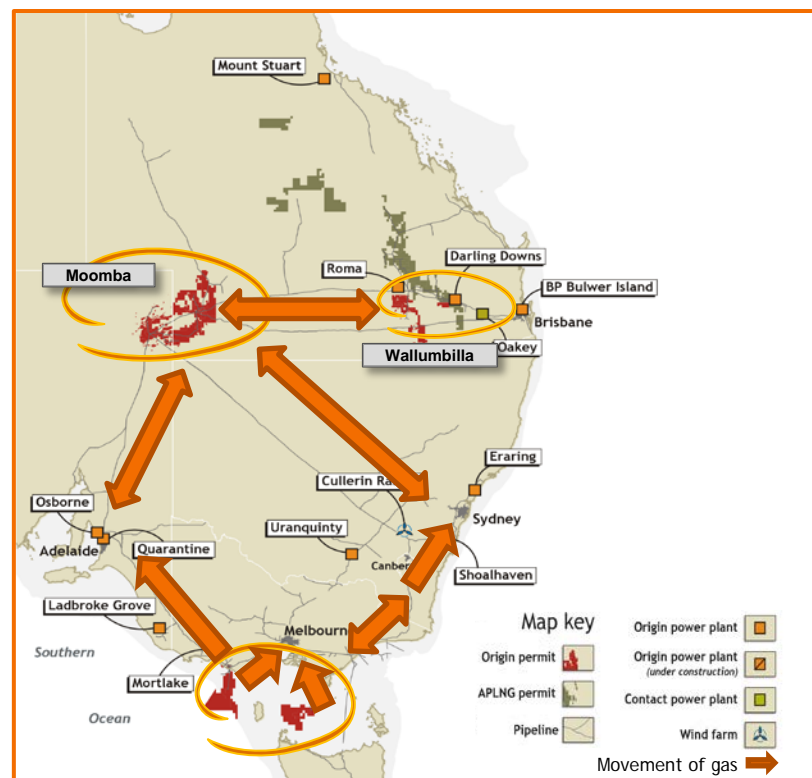
# Competitive gas position supported by supply duration beyond 2020, transport flexibility and growing customer base



## Energy Markets' East Coast Gas Portfolio



## Origin's Flexible Transport Capacity

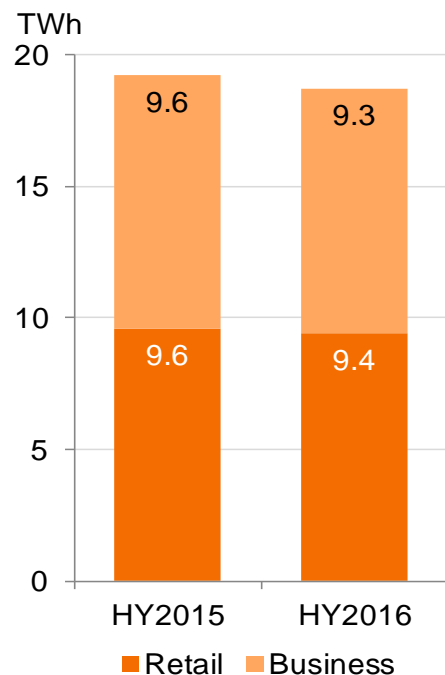


- Supply portfolio beyond 2020 supporting substantial Retail & Business customer base growth
- Energy Markets is well positioned to supply gas to the growing LNG market with call back options to meet electricity demand peaks
- Diverse transport and storage capacity to maximise value of gas in each market

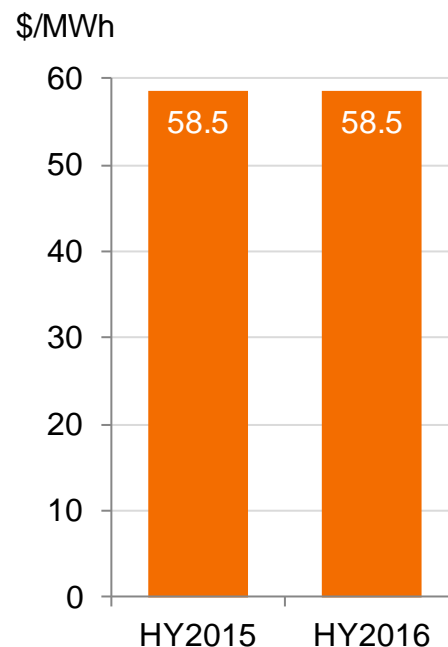
# Electricity margins stable (-\$9m) Unit margins up \$12 million, offset by prior period customer losses



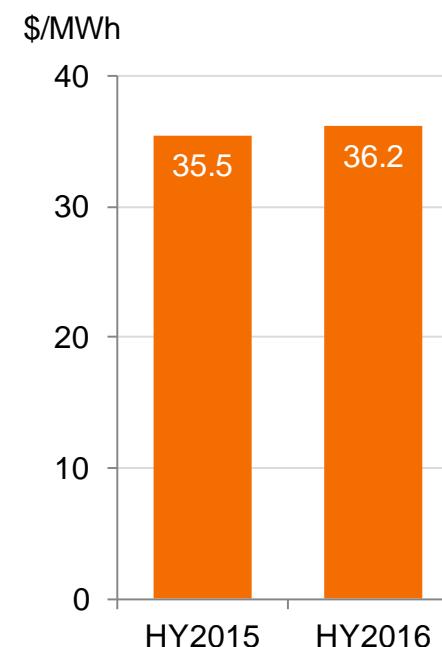
Electricity Volumes Down<sup>1</sup>



Electricity Procurement Cost Flat<sup>1,2</sup>



Unit Margin Expansion

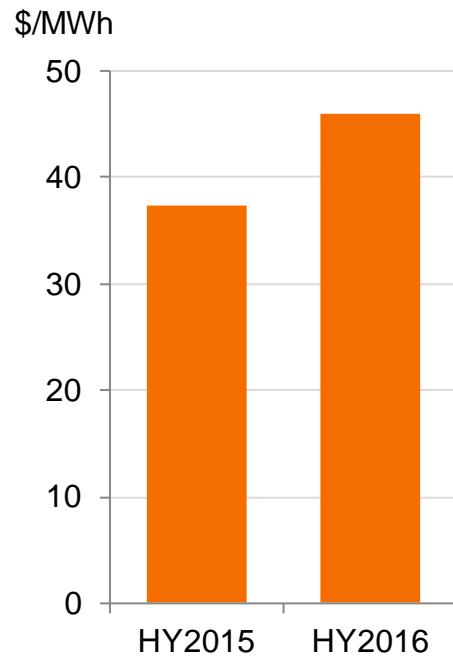


- Retail volumes down 0.2 TWh due to prior period customer losses (-\$21m)
- Benefit of cooler winter offset by impact of solar and energy efficiency
- Unit margin expansion (+\$12m)
- Retail margin management
- Origin's energy procurement costs remain stable in a market responding to higher wholesale prices

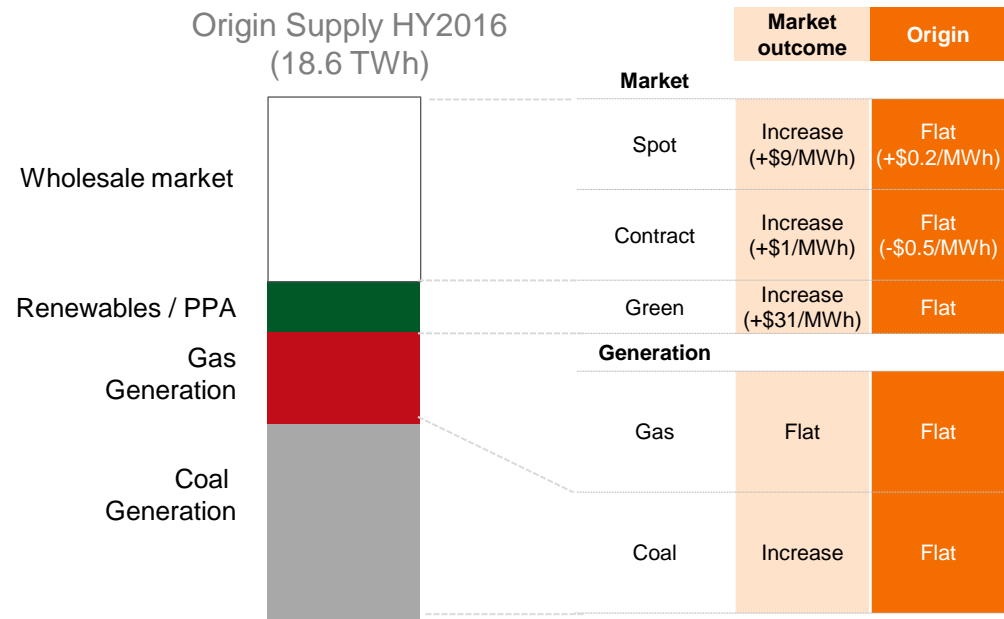
# Energy procurement costs flat in a rising wholesale market



## NEM Spot Prices Rise 23%



## Origin's Energy Procurement Cost Flat

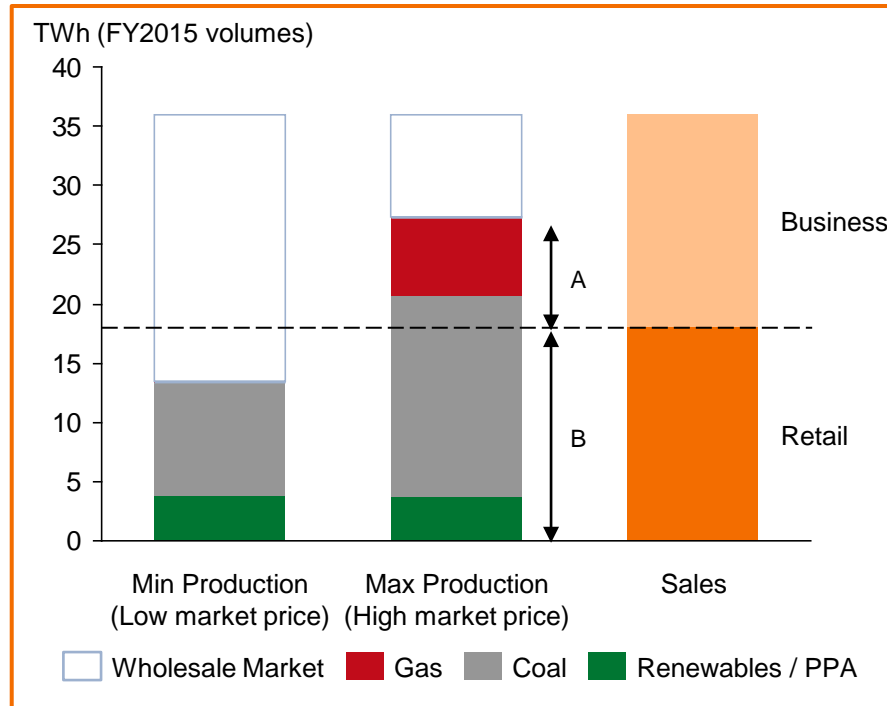


- Portfolio configuration for H1 FY2016 demonstrates flat energy procurement cost performance in a rising wholesale market
- Generation fleet used to tailor portfolio for each state market
- Access to fuel markets (coal and gas) and wholesale electricity markets (spot and contracts) to optimise portfolio cost

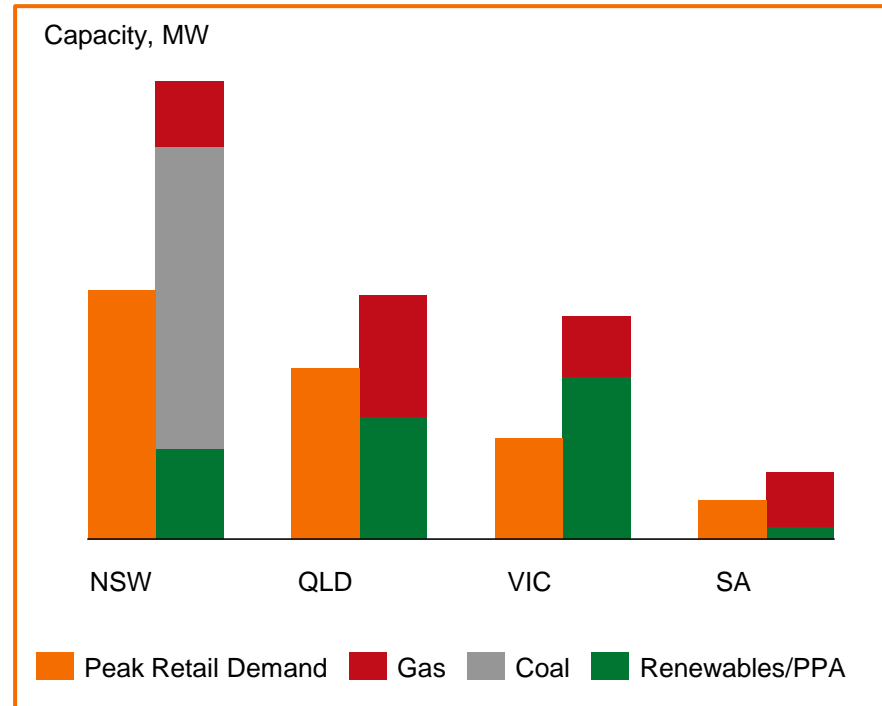
# Flexible fuel and generation portfolios position Origin strongly in changing market



## Origin's energy portfolio flexibility



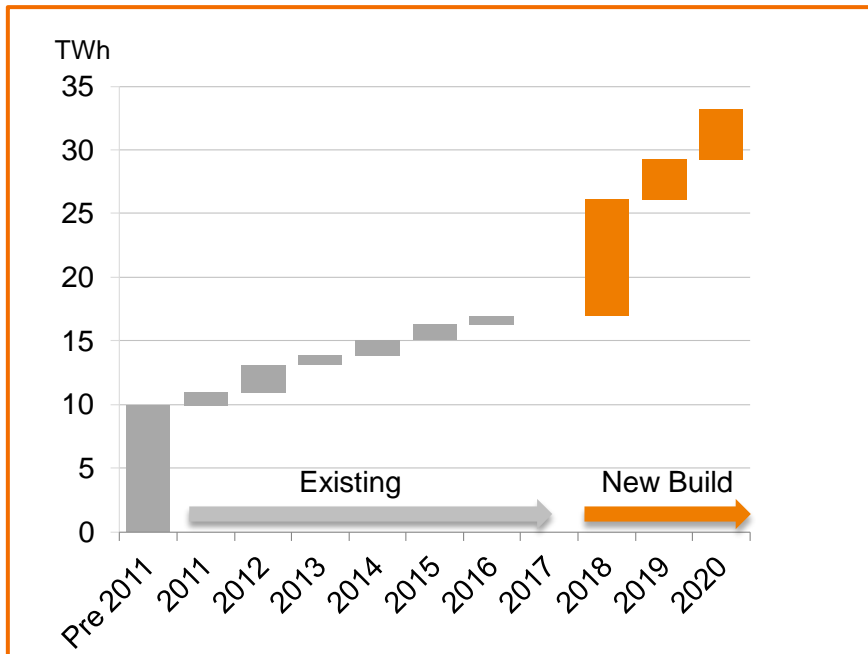
## Long capacity with geographic diversity



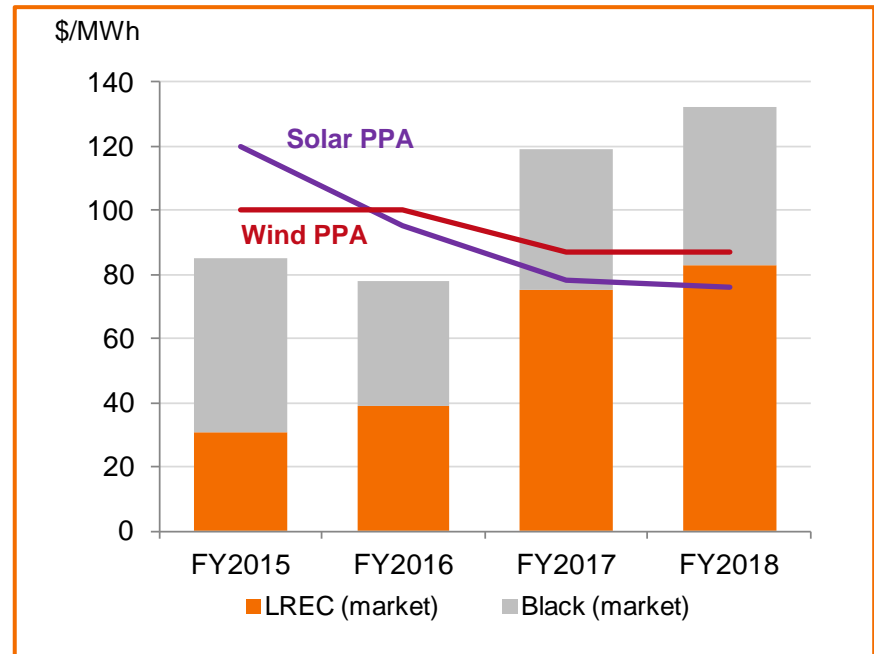
- Minimum production determined by Take or Pay fuel position which reduces in FY17, increasing flexibility
- Maximum production determined by plant capacity and fuel flexibility
- Benefit from low and relatively stable cost of own generation relative to a rising wholesale market as Business (A) and Retail (B) contracts reprice
- Geographic diversity of the generation fleet used to tailor configuration for each state market

# Renewables more attractive than ever as utility scale solar and wind generation costs fall

## 14TWh of new renewable build required<sup>1</sup>



## LREC price rising and renewables cost falling<sup>2</sup>



- 14 TWh of new renewables required to meet 33 TWh target by 2020 (approximately 5,000 MW of wind)
- LREC price is rising in response to new build requirements
- Cost of utility-scale solar and wind generation falling
- New build injects 14 TWh of 'must run' energy into electricity market, displacing baseload generation and increasing volatility

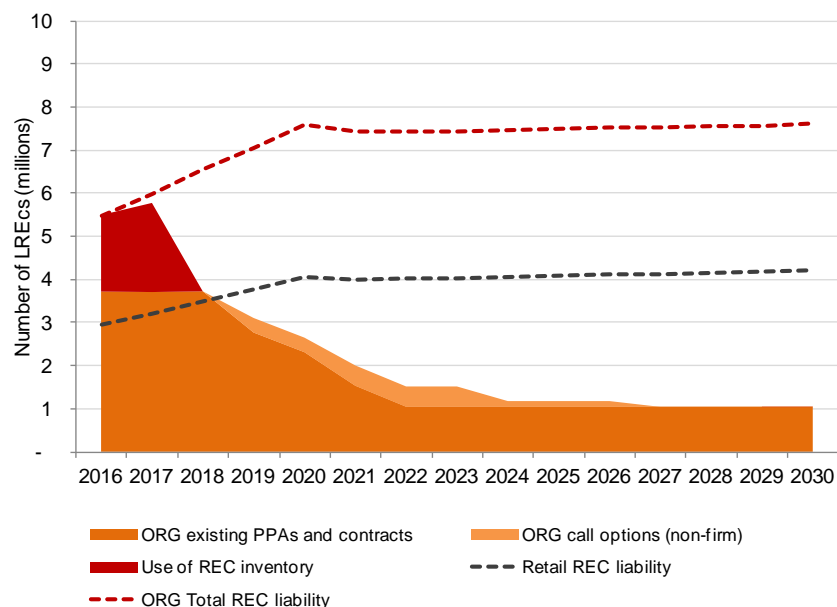
(1) REC liability based on growth in line with AEMO's system demand

(2) Origin Energy estimates. Solar and Wind PPA costs include black energy and renewable certificate costs

# Origin is well placed to accelerate a more renewable future



## Origin's renewable certificate (LREC) position<sup>1</sup>



## Significant renewables opportunity

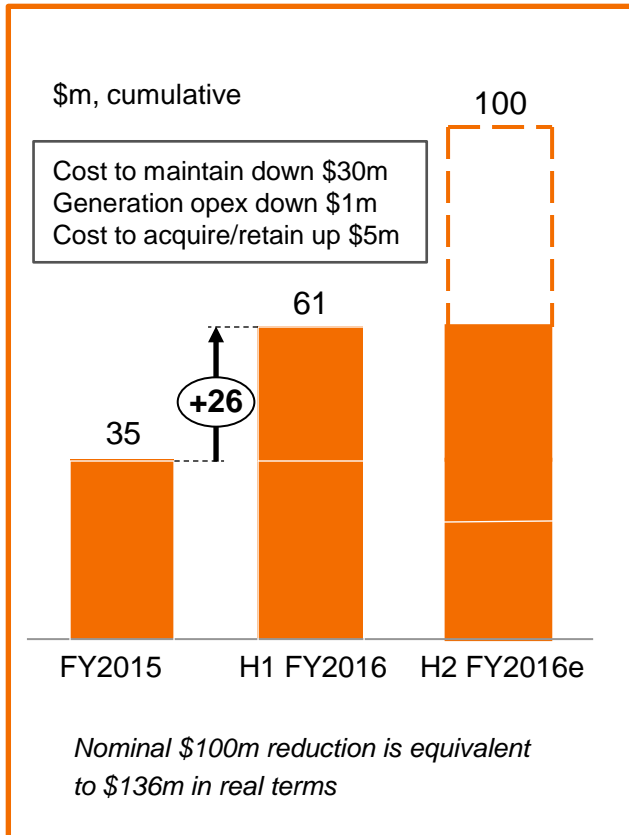
- Origin is actively pursuing a number of utility scale solar and wind opportunities, including via offtake agreements
- Origin's electricity portfolio has room to accelerate development of renewables
- Origin's existing generation portfolio has low stranding risk from further renewables build
- Volatility from increasing renewable penetration increases the value of peaking assets
- World's first energy company committed to all seven of the *We Mean Business* coalition initiatives



# On track to deliver \$100 million in cost savings and \$50 million reduction in capex, embedding a culture of continuous improvement

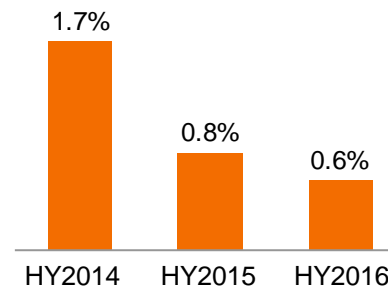


## Operating Cost Reduction

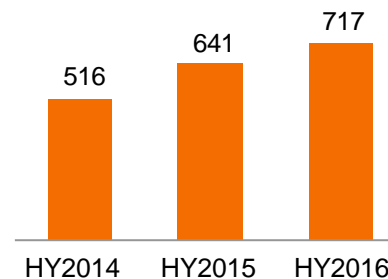


## Focus on lifting operational performance

### Bad & Doubtful Debts (% of billings)



### Direct Debt Accounts

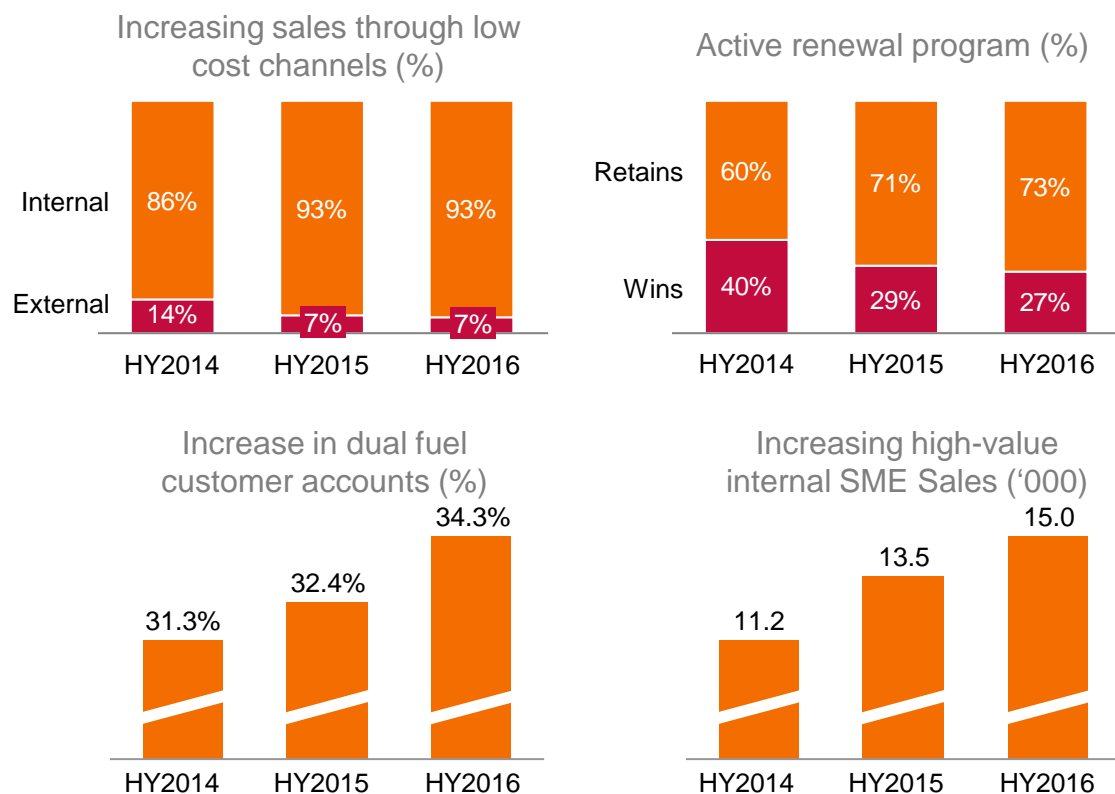


- Credit and collections transformation
- Digital first mindset for customer interactions
- Productivity and process simplification
- New business process outsourcing partner and contract
- Generation fleet performance
- Labour and overhead reduction

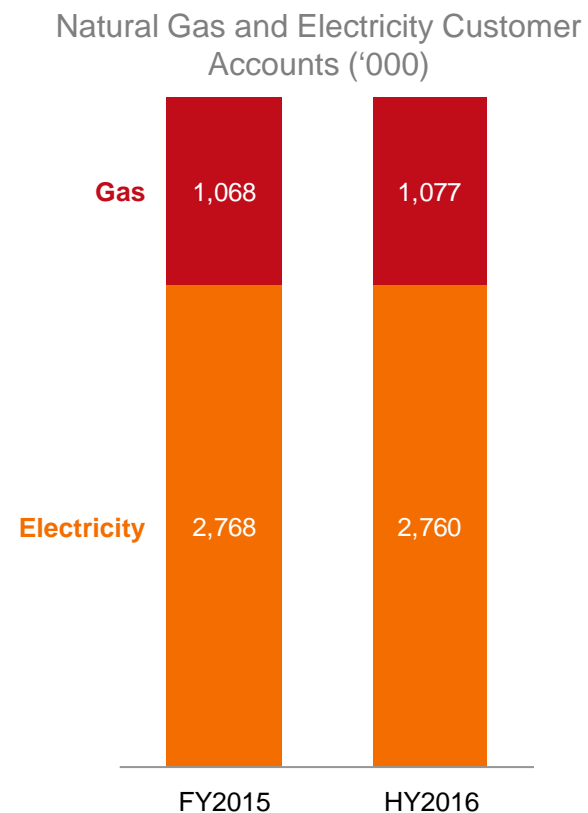
# Focused on retaining high value customers through cost effective internal channels. Customer accounts stable.



## Focus on cost effective channels & high value customers



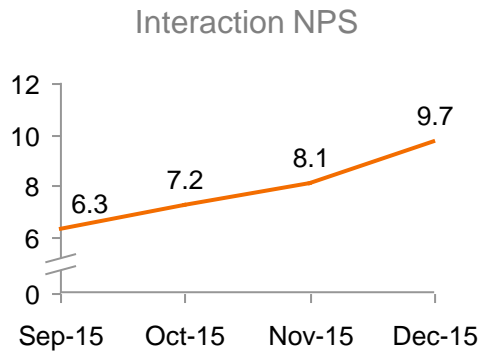
## Customer accounts stable<sup>1</sup>



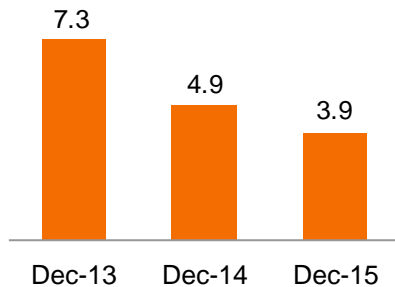
# Building customer loyalty and trust



## Customer Experience

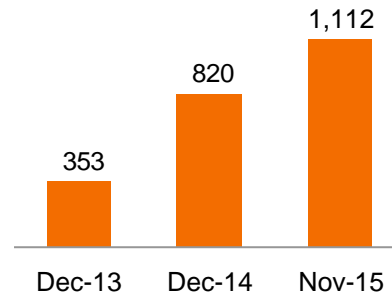


Ombudsman complaints  
(per 1000 accounts)

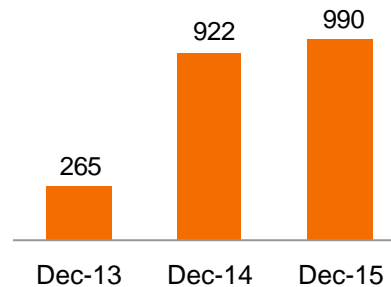


## Digital

eBilling customer accounts ('000)



MyAccount registrations



### Customer Experience

- Growing customer centric culture
- New and differentiated propositions
- Campaign agility
- Customer alerts and notifications

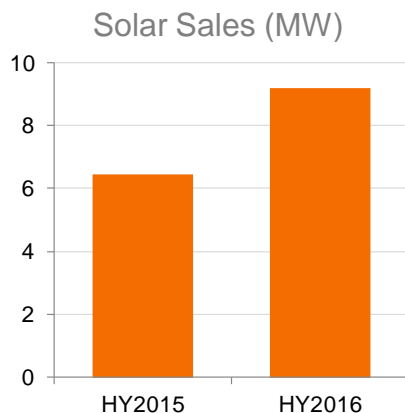
### Digital capability

- New digital platform enabling customer segmentation, product testing, analytics and market agility
- Origin leads with 28% share of online visitation
- Unique visitor to application completion rate increased 19%
- More customers are choosing to stay with Origin via online renewals, up 42%
- Industry leading rates of digital engagement on social media: 18% of Origin followers actively engaged with Origin Facebook content in 2015
- Analytics providing deeper customer insights and improved customer experience

# Becoming Australia's leading energy solutions provider



## Solar



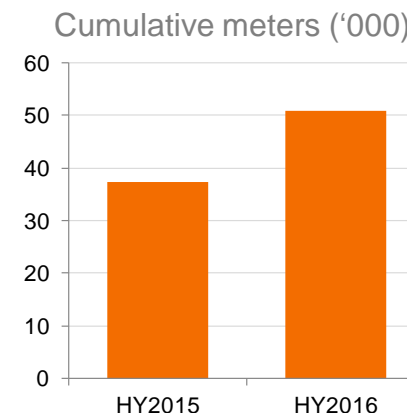
- 42% increase in Solar sales
- Solar-as-a-Service introduced in May 2015 and delivered a meaningful contribution, 55% of Business solar sales
- Entered North Queensland market
- Origin aspires to be number 1 in solar PV by leveraging Origin's brand, customer base, and wholesale electricity capability

## Energy Services



- Launched battery proposition as first retailer to sell the Tesla Powerwall in Australia
- 'Origin Solar Repairs' launched
- Centralised Energy Services grew customer numbers by 13% and launched embedded electricity networks business
- Using knowledge of the customer to offer a range of energy related products and services

## Digital Metering



- More than 8,000 new meters installed and now over 50,000 meters in total operated by Acumen Metering
- Digital metering provides opportunity to gain richer access to customer data and to improve the customer experience
- Connected home products that go beyond the sale of simple electrons or gas molecules

# Energy Markets strategic priorities to deliver shareholder value



## Build customer loyalty and trust

- Customer first culture
- Customer experience and service
- Differentiated propositions
- Digital capability



## Maximise value of the core business

- Gas portfolio competitive position
- Competitive cost of electricity
- Growing renewables
- Low cost to serve



## Creating new energy solutions

- Grid plus distributed energy solutions
- Solar, storage, energy services, embedded networks
- Digital metering
- Home energy management



## Engaged, high performing teams

- Health, Safety and Environment
- Employee Engagement
- High performance culture

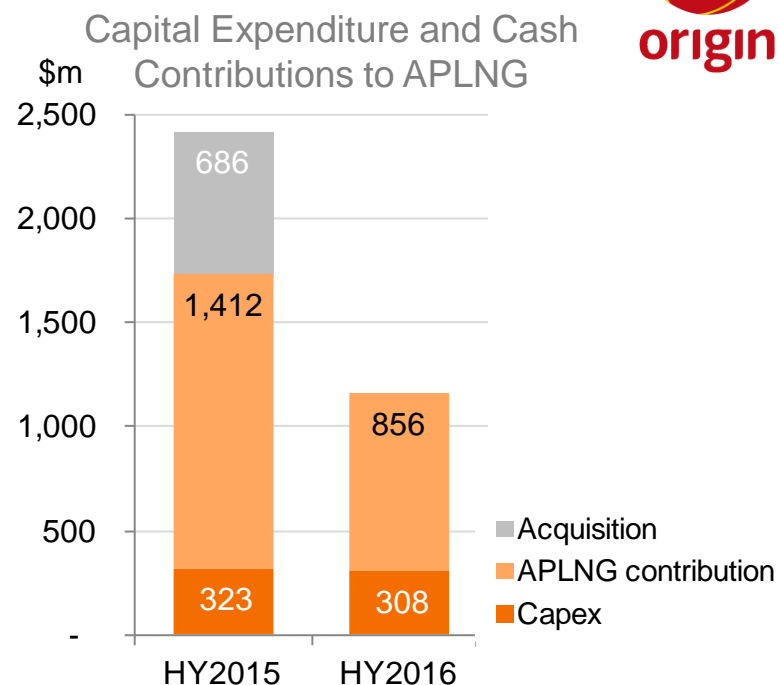
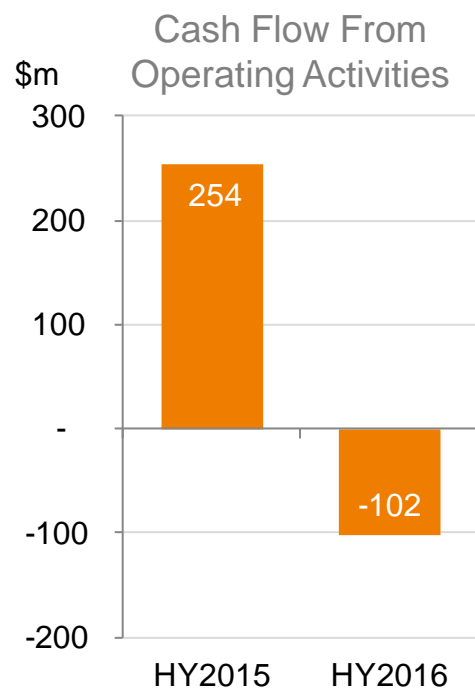
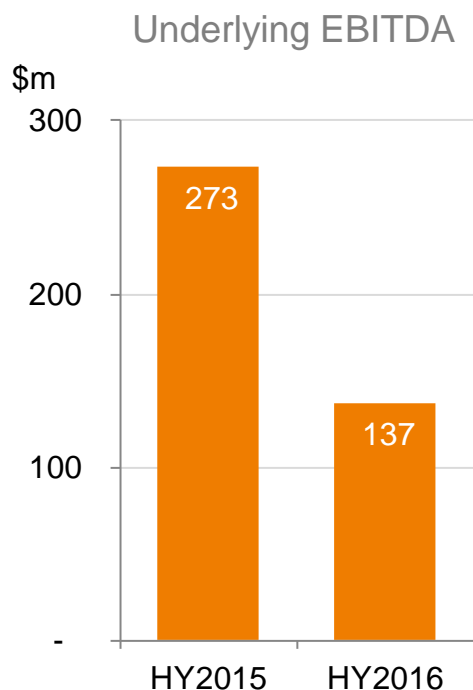


## Transformation

## 3. OPERATIONAL REVIEW – Integrated Gas

David Baldwin, CEO Integrated Gas

# Integrated Gas

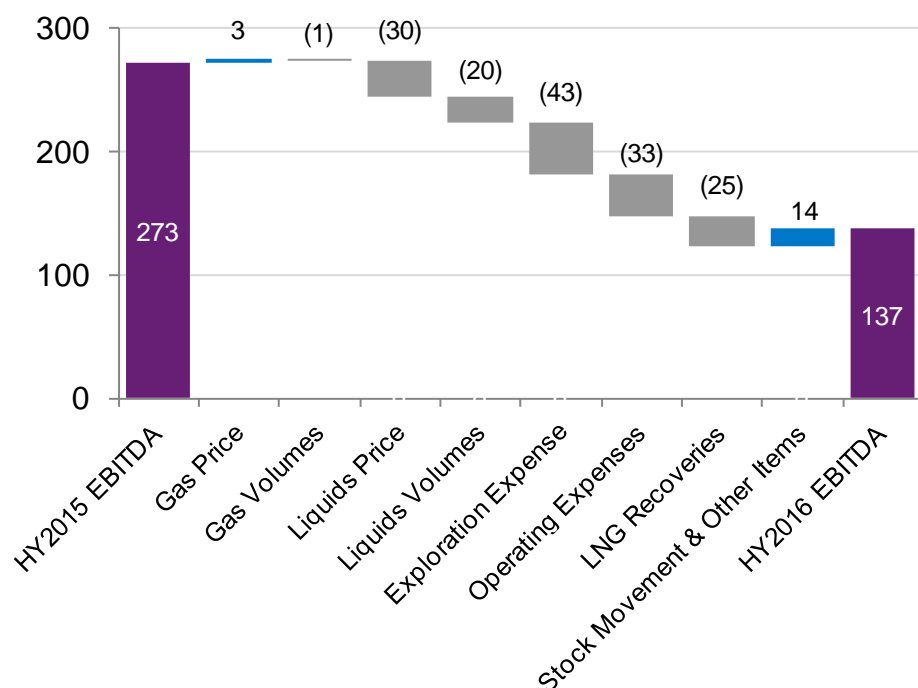


- Underlying EBITDA down 50% to \$137 million due to:
  - E&P - \$53 million write-off of Vietnam exploration expense as Origin exits all international exploration activities<sup>1</sup>, lower liquids prices and lower production
  - LNG – lower APLNG indirect cost recoveries due to lower upstream capital expenditure and impact of low oil prices on sales to QGC
- Cash flow from operating activities down to -\$102 million due to lower underlying EBITDA (excluding non-cash impact of exploration expense and share of APLNG EBITDA) and impact of actions taken to reduce risks in response to low oil prices, and increase in working capital
- First LNG produced in December 2015, with 5 shipments made to date including 3 to Sinopec
- Work to connect Halladale and Speculant wells continued, with first gas expected early FY2017

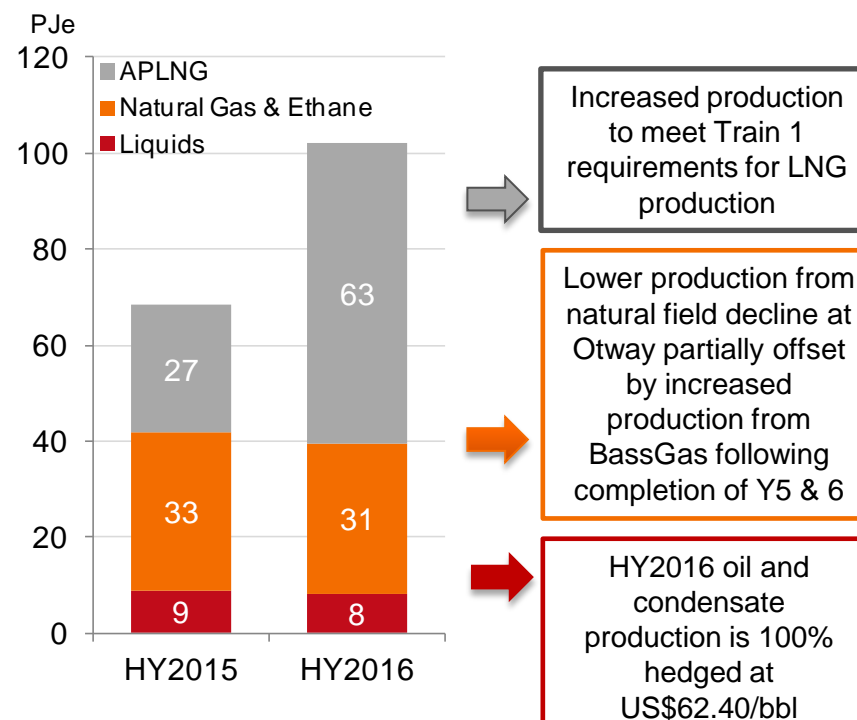
**EBITDA down \$136 million to \$137 million primarily due to a \$53 million Vietnam exploration write-off following exit from all international exploration activities<sup>1</sup>, lower liquids prices and lower production**



**Integrated Gas EBITDA Bridge**



**Gas and Liquids Production<sup>2</sup>**

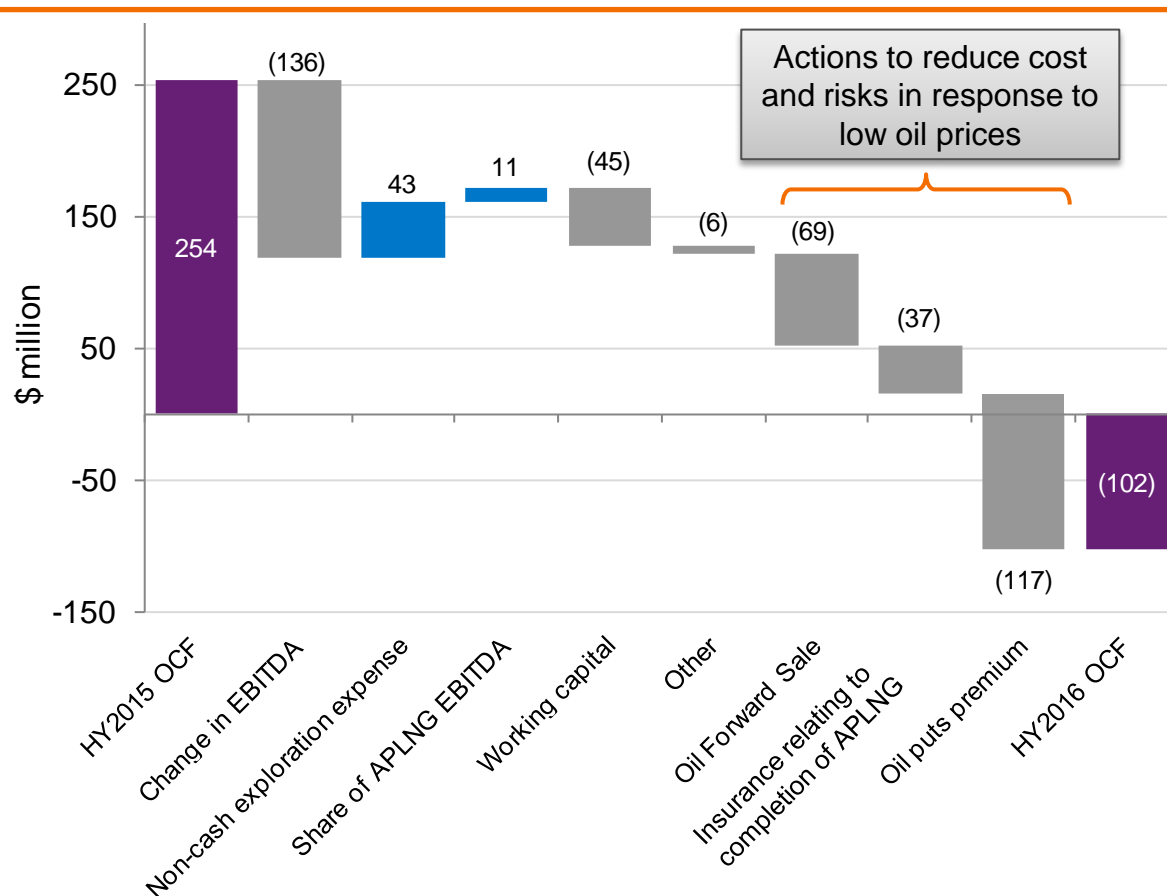




# OCF down \$356 million to -\$102 million primarily due to decrease in underlying EBITDA, and the impacts of actions to reduce cost and risks in response to low oil prices



## Integrated Gas Cash Flow From Operating Activities Bridge



- Lower EBITDA (-\$136m), offset by non-cash exploration expense (\$43m) and share of equity accounted APLNG EBITDA (\$11m)
- Working capital (-\$45m)
- Commencement of oil and condensate deliveries into the Oil Forward Sale Agreements (-\$69m)
- Purchase of oil puts (-\$117m), non-recurring
- Insurance relating to completion of APLNG (-\$37m), non-recurring

**APLNG Upstream is complete and performing at or above expectations.  
In the Downstream, Train 1 has started up and performing at or above  
nameplate capacity**



Key Goals and Milestones	Plan	Actual Progress
First Cargo from Train 1	Q2 FY16	Accomplished Q3
Commencement of Sinopec SPA	Q2 FY16	Accomplished
Completion of Bechtel Performance Test Train 1 (Bechtel Performance Date)	Q4 FY16	
First Cargo from Train 2	H1 FY17	



**Origin's remaining cash contribution to APLNG from 1 January 2016 is ~\$1 billion, consistent with previous guidance<sup>1</sup>, cost reductions having mitigated upward pressures from lower oil price and train delay**



(A\$m)	Half Year to 31 Dec 2015	Cumulative from FID1 to 31 Dec 2015
Project Capex <sup>2</sup>	507	25,470
Non-Project Capex:		
Capitalised O&M	288	
Domestic	161	
Exploration	14	
Sustain	706	
<b>Total APLNG Capex</b>	<b>1,676</b>	
Origin cash contribution <sup>3</sup>	856	7,564

Includes unfavourable foreign exchange translation impact of A\$436m and \$200m of accrued expenses yet to be funded

- Estimated APLNG Project Capex at completion expected to be A\$25.9 billion<sup>4</sup>, not materially different from the budget
- APLNG exploration expenditure cut from \$132m in FY2015 to \$20m in FY2016

(1) Previous guidance of Origin's remaining contribution to APLNG was \$1.8 billion from 1 July 2015 less \$856 million contributed in the 6 months to 31 December 2015, based on a Train 2 start date of mid H1 FY2017

(2) APLNG capital expenditure (100%) derived from APLNG's Financial Statements; on an accruals basis.

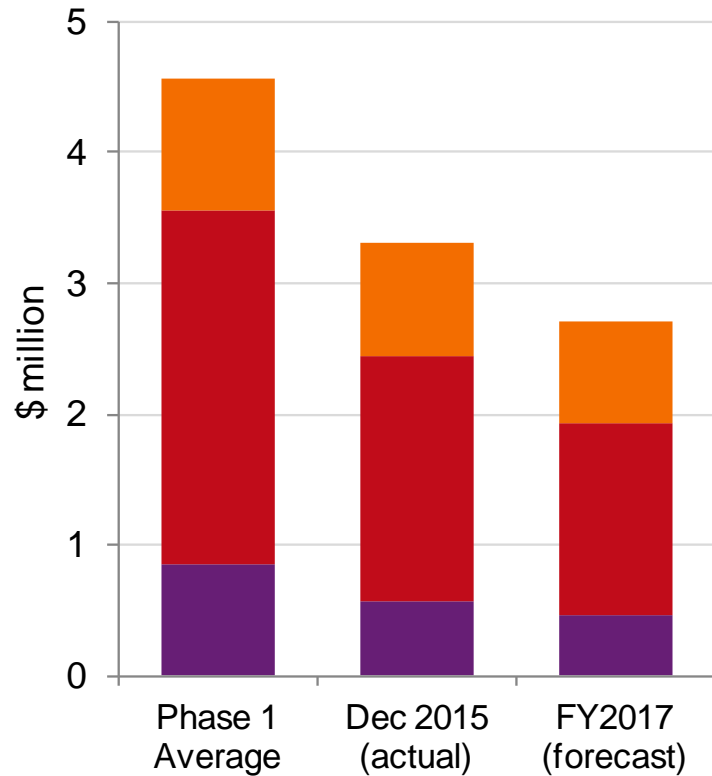
(3) Via the issue of Mandatorily Redeemable Cumulative Preference Shares by APLNG to Origin, net of MRCPS interest income

(4) Relative to project cost estimates announced in February 2013, which were based on 31 December 2012 exchange rates

# \$1 billion cost reduction initiatives in APLNG's Upstream total annual costs have been implemented, with average per well costs of \$2.7m in FY2017



## APLNG Operated Costs per Well



### Drilling & Completions

- Bundled 20+ wellsite services into one (*implemented*)
- Technological improvements to completions rigs and procedures (*implemented*)
- Rig rate reductions including fixed rig move fees and limited notice for releasing a rig (*in progress*)

### Field Delivery/Gathering

- Competitive panel for gathering and civil works (*implemented*)
- Lower rates and innovation programs with materials suppliers (*implemented*)
- Bundled pain-share, gain-share model for integrated civils and construction scope (*in progress*)

### Other costs

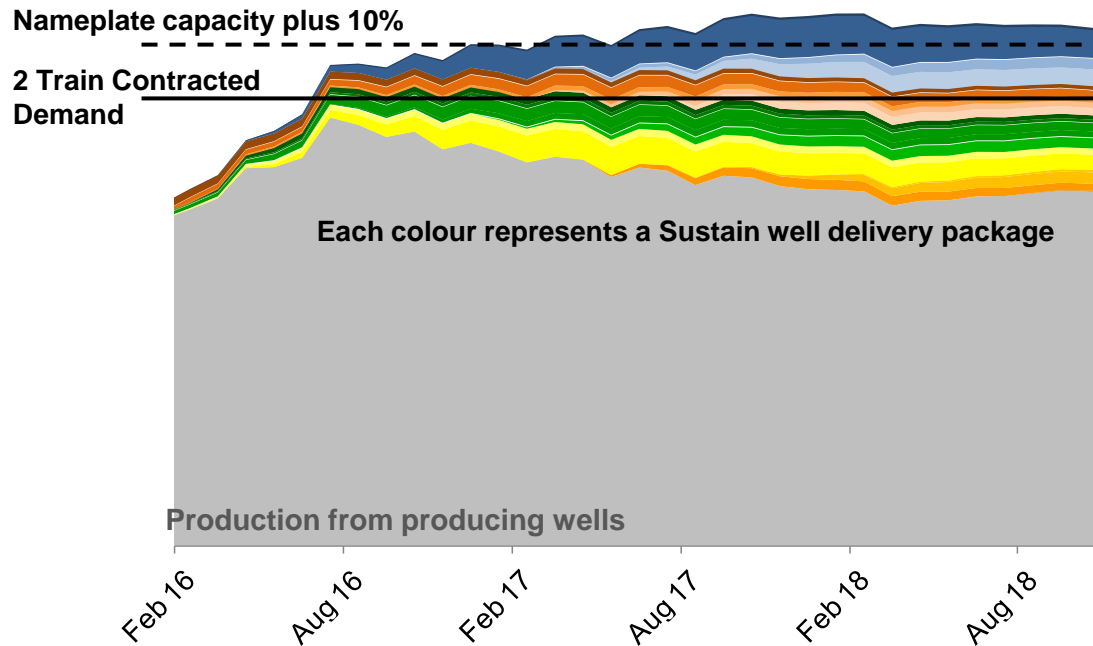
- Simplified processes (*implemented*)
- 40% reduction of roles (*implemented*)
- Standardised, flexible well delivery process (*implemented*)
- Better planning, reducing rework and waste (*in progress*)

**Further opportunities are being identified to reduce breakeven costs as a result of cost deflation and further efficiencies**

## Sustain well development lifecycle duration is decreasing from 36 months to 6-9 months, increasing flexibility to tailor future capex spend



### APLNG Gas Production (TJ/d)

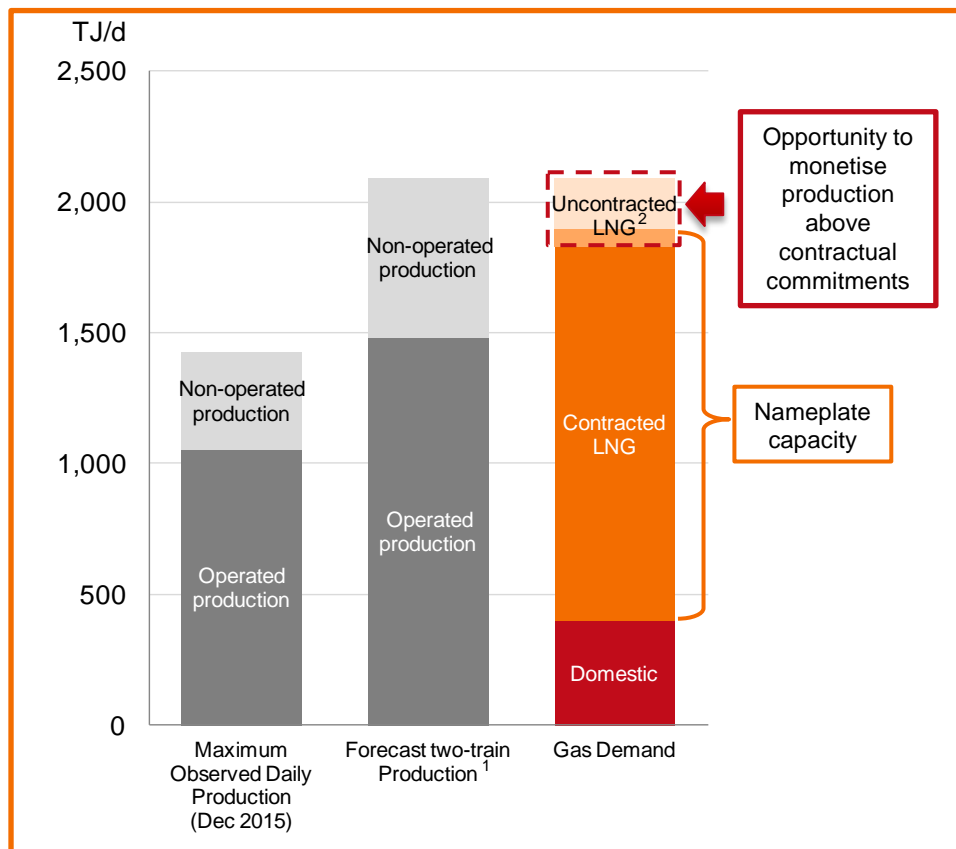


- Sustain wells and infrastructure is parceled into discrete “Delivery Packages” (eg. 10-50 wells) for scoping and engineering
- Delivery Packages are ranked based on breakeven price (\$/GJ) and reservoir and execution risks
- At any given time, a surplus of executable Delivery Package options provides flexibility
- For example, the flexibility creates the option for APLNG to defer the dark blue packages

# APLNG performance is expected to exceed nameplate capacity, creating options to lower the breakeven



## APLNG Supply and Demand



### Upstream production is expected to exceed contracted demand:

- Well production levels currently being constrained to match demand
- Fields are continuing to ramp toward respective peak rates
- Based on the current sustain development plan, current field performance is expected to result in production exceeding contract commitments by 100 to 200 TJ/d, creating options to lower the breakeven by either:
  - deferring sustain capex, or
  - monetising the surplus production

### Downstream is expected to exceed nameplate capacity

- Providing a path to market for surplus gas

The combination of lower drilling costs, execution flexibility and excess capacity results in a potential reduction in the breakeven of A\$3-5/boe, or A\$200-350m (100% APLNG) over the near term












(1) Forecast two-train production represents expected production over the first two years when both LNG trains are at or near capacity

(2) Uncontracted LNG volumes represent spot sale LNG volumes, excluding DQT volumes



# APLNG is structurally well positioned



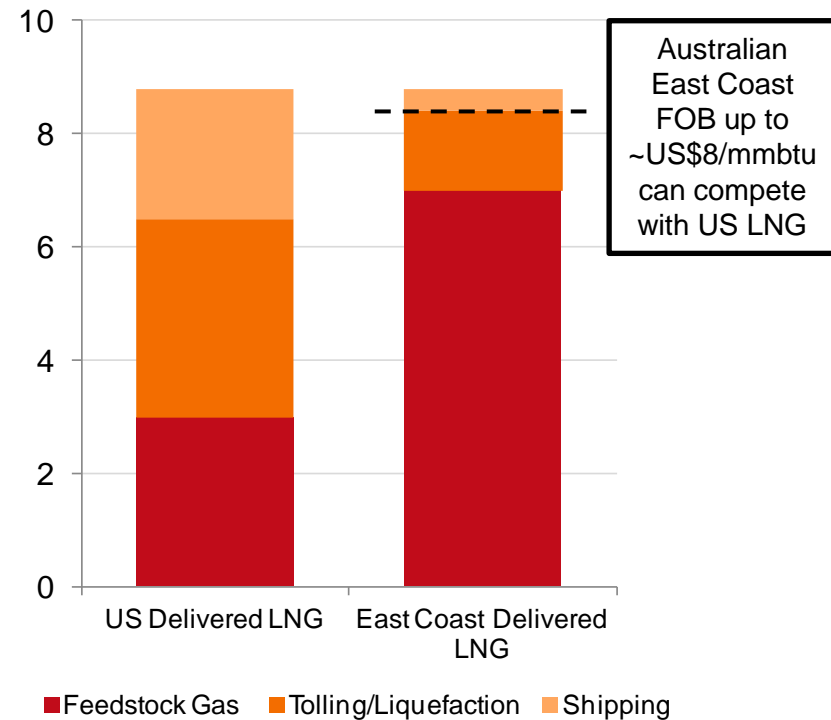
APLNG Is underpinned by:			
Strong reserves <sup>1</sup> Quality assets	<p>16,174 PJ</p> <div> <div>3P</div> <div>2P</div> <div>1P</div> </div>	 	
Leading operators	 Upstream Operator	 Downstream Operator	
Aligned shareholders	 37.5%	 37.5%	 25%
Strong offtake contracts with creditworthy customers	 1 mtpa contracted A3/Negative (Moody's)	 7.6 mtpa contracted A+/Stable (S&P), Aa3/Stable (Moody's)	
Project finance underpinned by US & Chinese export credit agencies	 EXPORT-IMPORT BANK OF THE UNITED STATES	 CHINA EXIM BANK THE EXPORT-IMPORT BANK OF CHINA	

## In the longer-term, LNG is increasingly important in the global energy mix, and Australia is well positioned



- Global gas demand will continue to grow, by ~2% over the next decade, with LNG growing by 4-6% per annum<sup>1</sup>
  - Global gas demand to be driven by environmental considerations and energy security
  - Global LNG demand driven by Asian gas demand growing faster than native supply sources
- East Coast Australia competitive with US LNG delivered Asia
- East Coast unutilised LNG processing capacity expected to increase
- Origin has one of the largest low cost resource bases in East Coast Australia (including Ironbark) and is well positioned to take advantage of backfill opportunities
- Origin has capability to take advantage of market opportunities

Forecast 2020 Cost of US and East Coast Australian Delivered Asia LNG (US\$/mmbtu)



**Origin is positioned to take advantage of market opportunities**



# Integrated Gas strategic priorities to deliver shareholder value



## Continue execution momentum

- ✓ Upstream complete, Train 1 in production and performing at or above nameplate
- ☐ Train 2 production in H1 FY2017
- ☐ Complete APLNG project finance tests to release shareholder guarantees by end CY2017
- ☐ Complete Halladale/Speculant project and bring into production in early FY2017



## Deepen resilience to sustained low oil price

- ✓ \$1b pa reduction in APLNG upstream costs implemented 6 months ahead of plan
- ✓ Reduced downside exposure to sub-US\$40/bbl oil for FY2017 and LNG spot price exposure through end H1 FY2018
- ✓ Simplified the organisation from 4000 to 2000 (FTEs)
- ☐ Lower the average APLNG operating break even by A\$3–5/bbl
- ☐ Reduce controllable E&P operating costs by 10% in FY2017



## Secure new high value markets

- ✓ LNG market development capability added
- ✓ Secure LNG customers
- ☐ Continue to develop market opportunities to support future growth



## Manage the portfolio with discipline

- ✓ Exploration and non-APLNG capital spend reduced from ~\$1,250m to ~\$450m (FY15/FY16e)
- ✓ Exited international exploration activity (except NZ)
- ☐ Deliver previously announced asset sales program
- ☐ Invest in backfill only when clear route to market



## Build the capability and culture to deliver

- ✓ Management team renewal
- ✓ 23% improvement in safety performance over the 12 months to January 2016
- ✓ Culture of challenge, innovation and collaboration
- ☐ Increase engagement and diversity enhancing a performance culture

## 4. OUTLOOK

**Grant King**, Managing Director

## Guidance reaffirmation – Existing Businesses



Origin reaffirms guidance provided at the time of last year's the Entitlement Offer in relation to existing businesses<sup>1</sup>:

- FY2016 Underlying EBITDA (excluding LNG Underlying EBITDA) to be \$1.45b to \$1.55b
- FY2017 Underlying EBITDA (excluding LNG Underlying EBITDA) to be \$1.90b to \$2.10b

During remainder of FY2016 and through FY2017, Origin expects:

### **In Energy Markets**

- Lower contributions in H2 FY2016 as reduction in ramp gas benefit and seasonality impact in Electricity and Natural Gas more than offset continued improvement in Cost to Serve
- Continued growth in FY2017 driven by Electricity margin expansion as a result of higher wholesale prices reflected in tariffs and full deregulation in NSW and full year of gas sales to GLNG

### **In E&P**

- Lower exploration expense in H2 FY2016, offset by lower production than H1 due to Otway scheduled maintenance shutdown
- Significant growth in FY2017 driven by increased production as Halladale and Speculant come online, and no material exploration expense

**Early benefits from functional cost reductions in H2 FY2016 and full year of cost savings to be realised from FY2017 across Energy Markets and Integrated Gas**

## Guidance update - LNG



Guidance in relation to the contribution from LNG to Origin's Underlying EBITDA and NPAT provided at the time of the Entitlement Offer was:

- FY2016 Underlying EBITDA of \$110m to \$230m and contribution to Underlying NPAT of (\$170m) to (\$220m)
- FY2017 Underlying EBITDA of \$1.2b to \$1.3b

Assumptions underlying this guidance have changed:

Assumption	At time of Entitlement Offer	Update
Train 1 Bechtel Performance Date (BPD)	Q3 FY2016	Q4 FY2016
Oil price and FX	FY2016: US\$54/bbl, AUD/USD \$0.73 FY2017: US\$59/bbl, AUD/USD \$0.73	FY2016: US\$43/bbl, AUD/USD \$0.70 FY2017: US\$45/bbl, AUD/USD \$0.72

Given the above, Origin expects:

- Remaining cash contributions to APLNG from 1 January 2016 until APLNG is self funding of ~\$1 billion. This is dependent on timing of Train 2 completion and no changes in oil price from current assumptions of US\$43/bbl and US\$45/bbl for FY2016 and FY2017 respectively
- Oil put options that Origin has in place will provide a partial offset to any additional contributions to APLNG a result of further falls in oil in FY2017 below US\$40/bbl (or A\$55/bbl)
- Underlying LNG EBITDA for FY2016 to be \$30m to \$80m and contribution to Origin's Underlying NPAT within the original guidance range of (\$170m) to (\$220m)
- Underlying LNG EBITDA for FY2017 to be \$650m to \$750m (includes recognition of oil put premium expense (\$117m, non-cash))

In order to drive improved returns for shareholders in a low oil price environment, Origin's priorities are:



## ENERGY MARKETS

### GROWING CONTRIBUTION FROM ENERGY MARKETS

- Continue to build customer loyalty and trust
- Maximise value of core business
- Creating new energy solutions
- Engaged, high performing teams



## INTEGRATED GAS

### GROWING PRODUCTION AND REDUCING COST IN INTEGRATED GAS

- Continue execution momentum
- Deepen resilience to sustained low oil price
- Secure new high value markets
- Manage portfolio with discipline
- Building the capability and culture to deliver



## ORIGIN ENERGY

### MAINTAINING ADEQUATE FUNDING AND AN APPROPRIATE CAPITAL STRUCTURE

- Achieve targeted asset sales of at least \$800 million
- Reduce debt below \$9 billion by FY2017
- Ongoing debt reduction

## 5. APPENDIX

All figures in this report relate to businesses of the Origin Energy Group (Origin, or the Company), being Origin Energy Limited and its controlled entities, for the half year ended 31 December 2015 (the period) compared with the half year ended 31 December 2014 (the prior corresponding period), except where otherwise stated.

Origin's Financial Statements for the half year ended 31 December 2015 are presented in accordance with Australian Accounting Standards. The Segment results, which are used to measure segment performance, are disclosed in note A1 of the Financial Statements and are disclosed on a basis consistent with the information provided internally to the Managing Director. 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 Consolidated Profit, are non-IFRS financial measures, and exclude the impact of these items consistent with the manner in which the Managing Director 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 Consolidated Profit is provided in slide 19.

This report also includes certain other non-IFRS financial measures. 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 and other key terms used in this presentation is included in this Appendix. 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.

On 10 August 2015, Origin divested its entire 53.09% interest in Contact Energy. As a consequence, Contact has been presented as a discontinued operation in the income statement. This investor presentation provides a discussion of the performance and operations of all of Origin's businesses during the 2015 financial year, excluding Contact.

A reference to Australia Pacific LNG or APLNG is a reference to Australia Pacific LNG Pty Limited in which Origin holds a 37.5% shareholding. Origin's shareholding in Australia Pacific LNG 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 down the page 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. Measures for which the numbers change from negative to positive, or vice versa, are labelled as not applicable.

### Reserves

This Presentation contains disclosure of Origin and APLNG's reserves and resources as at 30 June 2015. These reserves and resources were announced on 31 July 2015 in Origin's Annual Reserves Report for the year ended 30 June 2015 (**Annual Reserves Report**). Origin confirms that it is not aware of any new information or data that materially affects the information included in the Annual Reserves Report and that all the material assumptions and technical parameters underpinning the estimates in the Annual Reserves Report continue to apply and have not materially changed. 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 (1P reserves) may be a conservative estimate due to the portfolio effects of the arithmetic summation. Proved plus probable plus possible (3P reserves) may be an optimistic estimate due to the same aforementioned reasons.

Some of Australia Pacific LNG CSG reserves and resources are subject to reversionary rights to transfer back to Tri-Star a 45% interest in Australia Pacific LNG's share of those CSG interests that were acquired from Tri-Star in 2002 if certain conditions are met. Approximately 22% of Australia Pacific LNG's 3P CSG reserves as of 30 June 2015 are subject to the reversionary rights. If reversion occurs this may mean that reserves and resources that are subject to reversion are not available for Australia Pacific LNG to sell or use after the date of reversion. In October 2014, Tri-Star filed proceedings against Australia Pacific LNG claiming that reversion has occurred. Tri-Star served the claim on Australia Pacific LNG on 20 October 2015. Australia Pacific LNG will defend the claim.



# Glossary - Statutory Financial Measures



Statutory Financial Measures are measures included in the Financial Statements for the Origin Consolidated Group, which are measured and disclosed in accordance with applicable Australian Accounting Standards. Statutory Financial Measures also include measures that have been directly calculated from, or disaggregated directly from financial information included in the Financial Statements for the Origin Consolidated Group.

Term	Meaning
Statutory Profit/Loss	Net profit/loss after tax and non-controlling interests as disclosed in the Income Statement of the Origin Consolidated Interim Financial Statements.
Statutory earnings per share	Statutory profit/loss divided by weighted average number of shares.
Cash flows from operating activities	Statutory cash flows from operating activities as disclosed in the Cash Flow Statement of the Origin Consolidated Interim Financial Statements.
Cash flows used in investing activities	Statutory cash flows used in investing activities as disclosed in the Cash Flow Statement of the Origin Consolidated Interim Financial Statements.
Cash flows from financing activities	Statutory cash flows from financing activities as disclosed in the Cash Flow Statement of the Origin Consolidated Interim Financial Statements.
External revenue	Revenue after elimination of intersegment sales on consolidation as disclosed in the Income Statement of the Origin Consolidated Interim Financial Statements
Net debt	Total current and non-current interest bearing liabilities only less cash and cash equivalents.
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 Group.
Statutory net financing costs	Interest expense net of interest income as disclosed in the Origin Consolidated Interim Financial Statements.

# Glossary - 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.



Term	Meaning
Prior corresponding period	Six month period to 31 December 2014.
Underlying Profit	Underlying net profit after tax and non-controlling interests as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying earnings per share	Underlying profit/loss divided by weighted average number of shares.
Items excluded from Underlying Profit	Items that do not align with the manner in which the Managing Director reviews the financial and operating performance of the business which are excluded from Underlying Profit.
Total Segment Revenue	Total revenue for the Energy Markets, Integrated Gas, Contact Energy and Corporate segments, including inter-segment sales, as disclosed in note A1 of the Origin Consolidated Financial Statements.
Underlying average interest rate	Underlying interest expense for the current period divided by Origin's average drawn debt during the year (excluding funding related to Australia Pacific LNG).
Underlying EBITDA	Underlying earnings before underlying interest, underlying tax, underlying depreciation and amortisation (EBITDA) as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying depreciation and amortisation	Underlying depreciation and amortisation as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying EBIT	Underlying earnings before underlying interest and underlying tax (EBIT) as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying income tax expense	Underlying income tax expense as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying net financing costs	Underlying interest expense net of interest income as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying profit before tax	Underlying profit before tax as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Underlying share of ITDA	The Group's share of underlying interest, underlying tax, underlying depreciation and underlying amortisation (ITDA) of equity accounted investees as disclosed in note A1 of the Origin Consolidated Interim Financial Statements.
Gross Margin	Gross profit divided by Revenue.
Gross Profit	Revenue less cost of goods sold.
Adjusted Net Debt	Net Debt adjusted to remove fair value adjustments on borrowings in hedge relationships.
TRIFR	Total Recordable Incident Frequency Rate.

# Glossary - 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% 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% probability 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% 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% probability to equal or exceed the best estimate for 2C contingent resources.
Bechtel Performance Date	The date on which the performance test for each Train under the Bechtel EPC contract is satisfied
Capacity factor	A generation plant's output over a period compared with the expected maximum output from the plant in the period based on 100% availability at the manufacturer's operating specifications.
Discounting	For Energy Markets, discounting refers to offers made to customers at a reduced price to the published tariffs. While a customer bill comprises a fixed and a variable component, Origin's discounts only apply to the variable portion. In some cases, these discounts are conditional, such as requiring direct debit payment or on-time payment.
Equivalent reliability factor	Equivalent reliability factor is the availability of the plant after scheduled outages.
GJ	Gigajoule = $10^9$ joules
GJe	Gigajoules equivalent = $10^{-6}$ PJe
Joule	Primary measure of energy in the metric system.
kT	kilo tonnes = 1,000 tonnes
kW	Kilowatt = $10^3$ watts
kWh	Kilowatt hour = standard unit of electrical energy representing consumption of one kilowatt over one hour.
MW	Megawatt = $10^6$ watts
MWh	Megawatt hour = $10^3$ kilowatt hours
Oil Sale Agreement	Agreements to sell a portion of future oil and condensate production from July 2015 for 72 months at prices linked to the oil forward pricing curve at the agreement date
PJ	Petajoule = $10^{15}$ joules
PJe	Petajoules equivalent = an energy measurement Origin uses to represent the equivalent energy in different products so the amount of energy contained in these products can be compared. The factors used by Origin to convert to PJe are: 1 million barrels crude oil = 5.8 PJe; 1 million barrels condensate = 5.4 PJe; 1 million tonnes LPG = 49.3 PJe; 1 TWh of electricity = 3.6 PJe.
Ramp Gas	Short term Queensland gas supply as upstream assets associated with CSG-to-LNG projects gradually increase production in advance of first LNG
TW	Terawatt = $10^{12}$ watts
TWh	Terawatt hour = $10^9$ kilowatt hours
Watt	A measure of power when a one ampere of current flows under one volt of pressure.

# THANK YOU

## For more information

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