

Origin Energy Quarterly Report December 2019

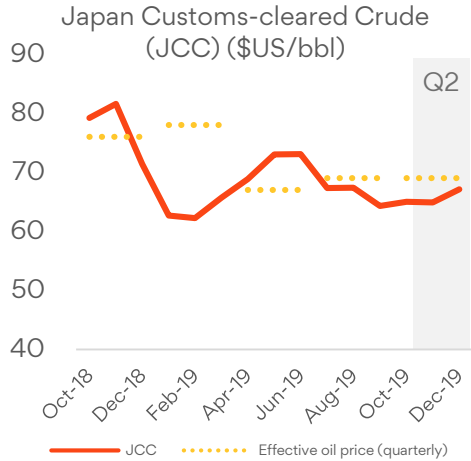


Overview of quarterly result

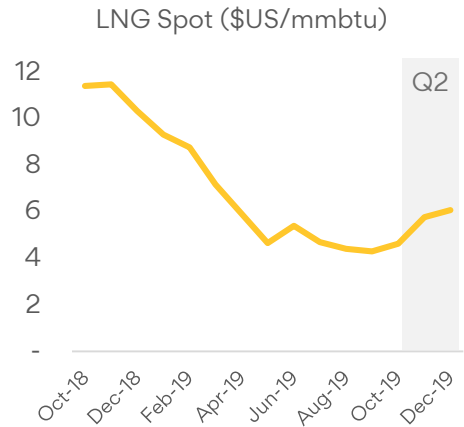


	Unit	Dec-19	Sep-19	% Mvt	Dec-18	% Mvt	FYTD-20	FYTD-19	% Mvt
Integrated Gas – Share of APLNG									
Production	PJ	67.6	66.5	2%	63.1	7%	134.1	127.3	5%
Sales	PJe	65.4	63.2	3%	64.2	2%	128.6	127.9	1%
Commodity Revenue	\$m	716.5	688.3	4%	740.9	(3%)	1,404.8	1,381.3	2%
Energy Markets									
Electricity sales	TWh	8.3	8.7	(5%)	8.7	(5%)	17.0	18.2	(7%)
Natural gas sales	PJ	57.2	77.1	(26%)	65.0	(12%)	134.3	147.7	(9%)
Corporate									
Origin capex	\$m	162	97	67%	150	8%	258	189	37%
Investments	\$m	5	3	67%	2	150%	8	4	100%
Net cash from APLNG	\$m	425	95	347%	393	8%	520	393	32%

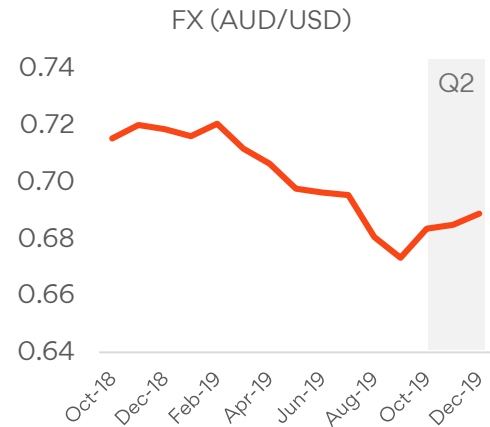
- Record APLNG production, up 2% on Sep-19 quarter and 7% on Dec-18 quarter with commissioning of the ERIC pipeline from July improving utilisation of processing capacity, less operated facility maintenance, and higher non-operated facility availability and well performance.
- APLNG revenue up 4% on Sep-19 quarter driven by a higher proportion of LNG sales and down 3% on Dec-18 quarter driven by lower effective prices.
- Energy Markets electricity volumes down 5% on Sept-19 quarter reflecting seasonality, and 5% on Dec-18 quarter due to expiry of Business contracts, lower Retail usage and customer numbers.
- Energy Markets gas volumes down 26% on Sep-19 quarter due to seasonality, and 12% on Dec-18 quarter due to the roll-off of some short term wholesale contracts, partially offset by increased Retail volumes and increased sales to generation.
- Origin capex of \$162 million primarily related to generation maintenance and Beetaloo appraisal.
- Origin received net cash distributions from APLNG of \$520 million over H1 FY2020, in line with guidance.



Source: Petroleum Association of Japan, Origin analysis



Source: IHS Markit¹



- APLNG's effective oil price in the Dec-19 quarter was US\$69/bbl (A\$100/bbl), flat from Sep-19 quarter but down from US\$76/bbl (A\$106/bbl) in the Dec-18 quarter.
- As at 29 January 2020, 93% of the FY2020 APLNG related JCC oil exposure has been priced at US\$68/bbl.
- Spot LNG prices recovered over the quarter in line with seasonal patterns but were lower vs Dec-18 due to additional global gas supply and subdued demand growth.

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Integrated Gas – 37.5% share of APLNG



	Unit	Dec-19	Sep-19	% Mvt	Dec-18	% Mvt	FYTD-20	FYTD-19	% Mvt
Total production (ORG share)									
	PJ	67.6	66.5	2%	63.1	7%	134.1	127.3	5%
LNG (ORG share)									
Production	kt	907.8	828.7	10%	844.0	8%	1,736.5	1,610.7	8%
Sales	kt	911.8	811.8	12%	838.6	9%	1,723.6	1,600.7	8%
Commodity Revenue	\$m	657.0	601.6	9%	650.5	1%	1,258.6	1,177.5	7%
Average realised price	US\$/mmbtu	9.38	9.67	(3%)	10.59	(11%)	9.52	10.13	(6%)
Domestic Gas (ORG share)									
Sales	PJ	14.9	18.2	(18%)	17.7	(16%)	33.1	39.2	(16%)
Commodity Revenue	\$m	59.5	86.7	(31%)	90.4	(34%)	146.2	203.9	(28%)
Average realised price	\$/GJ	4.00	4.76	(16%)	5.10	(22%)	4.42	5.20	(15%)
Origin Only costs									
Origin hedging/trading costs	\$m	(63.9)	(21.9)	192%	(78.1)	(18%)	(85.8)	(129.2)	(34%)

Note: A minor restatement has been made to Sep-19 domestic gas sales and revenue

- LNG revenue was up 9% on Sep-19 quarter in line with increased volumes, and relatively stable on Dec-18 quarter with higher volumes to meet nominations of contracted LNG customers, partially offset by lower realised prices.
- Domestic Gas revenue was down 31% on the Sep-19 quarter due to lower seasonal demand, and down 34% on Dec-18 quarter primarily due to lower short term contract volumes as a result of higher nominations for contracted LNG, as well as lower short term domestic prices.
- Hedging/trading costs increased quarter-on-quarter reflecting timing of losses on the LNG hedge position and amortisation of the oil hedging premium. Based on closed out positions and forward market prices as at 29 January 2020, we estimate a net loss on oil and LNG hedging and trading in FY2020 of \$102 million¹. Higher oil prices increase the overall loss, partially offsetting revenue gains in APLNG

1) \$20 million relating to oil hedging (\$28 million premiums less \$8 million in hedge gains); \$60 million relating to closed out LNG hedge positions; and \$22 million relating to LNG trading positions.

Integrated Gas Capex



	Unit	Dec-19	Sep-19	% Mvt	Dec-18	% Mvt	FYTD-20	FYTD-19	% Mvt
Origin only capex									
Capex	\$m	2	5	(60%)	6	(67%)	7	6	17%
E&A	\$m	25	10	150%	2	1,150%	35	4	775%
APLNG capex¹ (100%)									
E&A	\$m	29	18	61%	34	(15%)	47	61	(23%)
Sustain and Other	\$m	173	226	(23%)	189	(8%)	399	482	(17%)
Workovers	\$m	-	-	n/a	56	(100%)	-	96	(100%)

Origin only capex

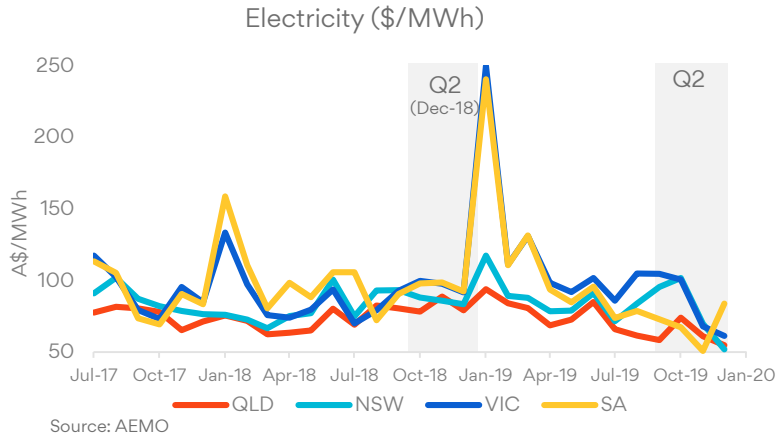
- E&A spend primarily relates to Beetaloo (Kyalla) drilling with vertical section completed in November.
- As disclosed on the Company's website on 14 January 2019, a new sidetrack section of the Kyalla well is underway. Results from the Kyalla program are now expected through the production test over Q4FY2020 and Q1 FY2021.
- Environmental approval to drill and fracture stimulate the Velkerri well in the Beetaloo was granted in late December 2019 and construction of the well lease pad was completed in early December 2019 in preparation for drilling in Q4 FY2020.
- \$15 million in opex was incurred relating to an agreement to reduce Origin's share of overriding royalty in the Beetaloo

APLNG capex

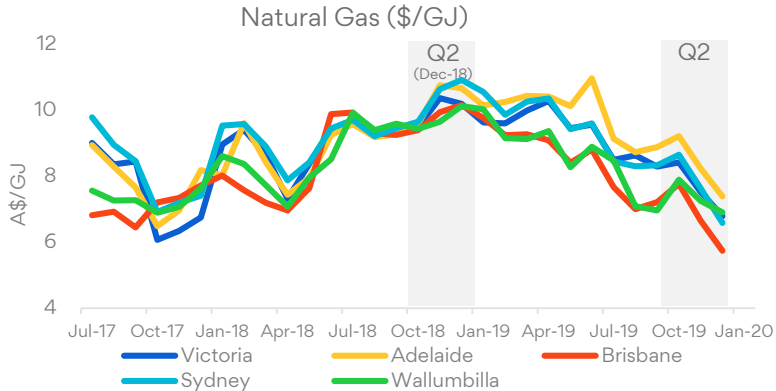
- E&A spend primarily related to two Condabri Deep pilot wells, fracture stimulation of South Burunga 2, and preparatory work.
- Sustain and Other capex was down 23% on Sep-19 quarter and down 17% on FYTD-19 due to:
 - \$50 million accrued benefit related to settlement of a claim in respect of initial project construction work
 - \$28 million lower non-operated spend due to less capital development activity
- From 1 July 2019, workover costs are recognised in operating expenses (in line with guidance provided in November 2019)

1) APLNG capex is reported on an accrual basis. Sep-19 has been adjusted by \$6 million to remove restoration costs and by \$48 to remove workover costs (both reclassified to operating cash flow). For the purpose of comparability Dec-18 and FYTD-19 workover costs have been shown separately

Electricity and Gas markets



- Average NEM spot electricity price for Dec-19 quarter was \$70.5/MWh, compared to \$79.9/MWh in the prior quarter and \$90.3/MWh in Dec-18:
 - Lower average prices primarily due to increases in both large scale and small scale renewable generation



- Average domestic spot gas price for Dec-19 quarter was \$7.51/GJ, compared to \$8.11/GJ in the prior quarter and \$10.06/GJ in Dec-18:
 - Price decline driven by lower Asia region LNG pricing over the last twelve months, seasonal demand, and expanded upstream gas supply

	Unit	Dec-19	Sep-19	% Mvt	Dec-18	% Mvt	FYTD-20	FYTD-19	% Mvt
Sales volumes									
Electricity – Retail	TWh	3.7	4.4	(16%)	3.8	(3%)	8.1	8.5	(5%)
Electricity – Business	TWh	4.5	4.4	2%	4.9	(8%)	8.9	9.6	(7%)
Natural gas – Retail	PJ	8.2	16.7	(51%)	7.0	17%	24.9	23.3	7%
Natural gas – Business	PJ	34.8	44.9	(22%)	47.5	(27%)	79.7	102.2	(22%)
Natural gas – Internal generation	PJ	14.3	15.4	(7%)	10.5	36%	29.7	22.2	34%
Capex	\$m	132	79	67%	138	-4%	211	176	20%
Investments	\$m	5	3	67%	2	150%	8	4	100%

- Electricity Retail volumes down 16% on Sep-19 quarter due to seasonality, and 3% on Dec-18 quarter due to lower usage and lower customer numbers.
- Electricity Business volumes remained relatively flat on Sep-19 quarter, and were down 8% on Dec-18 quarter due to expiration of Business contracts in Victoria and New South Wales.
- Gas Retail and Business sales down on Sep-19 quarter largely reflecting seasonality.
- Gas Retail volumes up 17% on Dec-18 quarter due to cooler weather during in Victoria and higher customer numbers.
- Gas Business volumes down 27% on Dec-18 quarter due to the expiration of Business contracts and the roll-off of some short term wholesale contracts in Queensland.
- Gas – Internal generation up 36% on Dec-18 quarter reflecting gas generation to cover planned and unplanned outages at Eraring and the roll-off of short term contracts in Queensland, which diverted gas from generation in the prior year.
- Capex of \$132 million primarily related to Eraring maintenance, Mortlake unit repairs, and a major inspection at Uranquinty.
- A unit at Mortlake Power Station was brought back to service in late December. The repairs resulted in a \$19 million write off of damaged equipment and \$7 million in Corporate self-insurance costs. We expect to recover capital and operating costs through insurance



Data tables

APLNG sources of gas



Production volumes	Units	Dec-19 Origin Share 37.5%	Sep-19 Origin Share 37.5%	% Change	Dec-18 Origin Share 37.5%	FYTD-20 Origin Share 37.5%	FYTD-19 Origin Share 37.5%
Operated							
Spring Gully	PJ	9.9	9.8	1%	10.0	19.7	20.1
Peat	PJ	0.3	0.3	0%	0.2	0.5	0.4
Denison	PJ	-	-	n/a	0.1	-	0.1
Talinga	PJ	7.3	7.3	0%	7.1	14.6	14.0
Orana	PJ	6.7	6.4	5%	5.2	13.1	11.6
Condabri	PJ	12.4	12.4	0%	12.3	24.8	24.1
Combabula/Reedy Creek	PJ	15.3	15.1	1%	14.1	30.4	28.4
Total operated production	PJ	51.8	51.3	1%	49.1	103.1	98.7
Non-operated							
Fairview (GLNG)	PJ	3.3	3.3	0%	3.6	6.6	7.2
Arcadia (GLNG)	PJ	0.1	0.1	0%	0.1	0.2	0.1
Angry Jungle (GLNG)	PJ	-	-	0%	-	-	-
Anya (QGC)	PJ	0.2	0.2	0%	0.1	0.4	0.1
Kenya East (QGC)	PJ	5.8	5.5	5%	5.2	11.3	10.7
Kenya (QGC)	PJ	6.0	5.8	3%	4.8	11.8	10.2
Bellevue (QGC)	PJ	0.3	0.3	0%	0.3	0.7	0.5
Total non-operated production	PJ	15.7	15.2	3%	14.0	31.0	28.6
Total upstream production	PJ	67.6	66.5	2%	63.1	134.1	127.3
Natural gas purchases	PJ	1.6	2.4	(33%)	4.2	4.1	7.9
Changes in Upstream gas inventory/other	PJ	0.1	(1.0)	(110%)	1.0	(0.9)	0.3
Total sources of natural gas	PJ	69.3	67.9	2%	68.3	137.2	135.5

APLNG uses of gas



Uses of gas	Units	Dec-19 Origin Share 37.5%	Sep-19 Origin Share 37.5%	% Change	Dec-18 Origin Share 37.5%	FYTD-20 Origin Share 37.5%	FYTD-19 Origin Share 37.5%
LNG feed gas	PJ	54.4	49.6	10%	50.5	104.0	96.3
Domestic sales	PJ	14.9	18.2	(18%)	17.7	33.1	39.2
Total uses of natural gas	PJ	69.3	67.9	2%	68.3	137.2	135.5

LNG	Units	Dec-19 Origin Share 37.5%	Sep-19 Origin Share 37.5%	% Change	Dec-18 Origin Share 37.5%	FYTD-20 Origin Share 37.5%	FYTD-19 Origin Share 37.5%
LNG Production	kt	907.8	828.7	10%	844.0	1,736.5	1,610.7
Changes in LNG inventory	kt	4.0	(16.9)	(124%)	(5.4)	(12.9)	(10.0)
Total LNG sales volume	kt	911.8	811.8	12%	838.6	1,723.6	1600.7
LNG cargoes loaded and shipped¹	#	35	31	13%	32	66	61

1) Number of cargoes reported are 100% APLNG

Share of APLNG commodity revenue	Units	Dec-19 Origin Share 37.5%	Sep-19 Origin Share 37.5%	% Change	Dec-18 Origin Share 37.5%	FYTD-20 Origin Share 37.5%	FYTD-19 Origin Share 37.5%
LNG	\$m	657.0	601.6	9%	650.5	1,258.6	1,177.5
Domestic Gas	\$m	59.5	86.7	(31%)	90.4	146.2	203.9
Total Commodity Revenue (ORG share)	\$m	716.5	688.3	4%	740.9	1,404.8	1,381.3

Sales – APLNG average realised prices	Units	Dec-19 Origin Share 37.5%	Sep-19 Origin Share 37.5%	% Change	Dec-18 Origin Share 37.5%	FYTD-20 Origin Share 37.5%	FYTD-19 Origin Share 37.5%
LNG	US\$/mmbtu	9.38	9.67	(3%)	10.59	9.52	10.13
Domestic Gas	\$/GJ	4.00	4.76	(16%)	5.10	4.42	5.20
Average Commodity price	\$/GJe	10.95	10.89	1%	11.54	10.92	10.80

Origin only costs	Units	Dec-19	Sep-19	% Change	Dec-18	FYTD-20	FYTD-19
Hedge premium expense	\$m	(13.7)	(6.1)	125%	(15.3)	(19.8)	(17.4)
Gain / (Loss) on oil hedging	\$m	2.0	(1.2)	(267%)	(27.4)	0.8	(55.4)
Gain / (Loss) on LNG hedging/trading	\$m	(52.2)	(14.6)	258%	(35.4)	(66.8)	(56.4)
Total	\$m	(63.9)	(21.9)	192%	(78.1)	(85.8)	(129.2)

APLNG Operated Production Wells

		Avg daily production (APLNG share)		Development Wells	
				Wells drilled	Wells commissioned
Bowen	Spring Gully	286 TJ/d	Dec-19 QTR FYTD-20	2 9	8 12
	Peat	8 TJ/d	Dec-19 QTR FYTD-20	- -	- -
	Denison	0 TJ/d	Dec-19 QTR FYTD-20	- -	- -
Surat	Talinga	211 TJ/d	Dec-19 QTR FYTD-20	- -	- -
	Orana	195 TJ/d	Dec-19 QTR FYTD-20	- 13	4 4
	Condabri	358 TJ/d	Dec-19 QTR FYTD-20	12 31	13 20
	Combabula / Reedy Creek	445 TJ/d	Dec-19 QTR FYTD-20	58 105	45 86
	TOTAL	1,503 TJ/d	Dec-19 QTR FYTD-20	72 158	70 122

Energy Markets sales volumes



Electricity sales volume (TWh)

Volumes sold (TWh)	Dec-19 QTR		Sep-19 QTR		FYTD-20		FYTD-19	
	Retail	Business	Retail	Business	Retail	Business	Retail	Business
New South Wales	1.8	2.2	2.2	2.2	4.0	4.4	4.1	4.8
Queensland	1.0	1.0	0.9	0.8	2.0	1.8	2.2	1.8
Victoria	0.6	0.9	0.8	0.9	1.5	1.8	1.6	2.2
South Australia	0.3	0.5	0.4	0.4	0.7	0.9	0.7	0.9
Total volumes sold	3.7	4.5	4.4	4.4	8.1	8.9	8.5	9.6

Natural Gas sales volume (PJ)

Volumes sold (PJ)	Dec-19 QTR		Sep-19 QTR		FYTD-20		FYTD-19	
	Retail	Business	Retail	Business	Retail	Business	Retail	Business
New South Wales	2.0	4.2	4.0	5.0	6.0	9.3	5.5	10.6
Queensland	0.7	15.8	1.0	17.3	1.7	33.1	1.7	55.9
Victoria	4.4	12.0	9.7	19.4	14.0	31.4	12.8	29.4
South Australia	1.1	2.7	2.1	3.2	3.2	5.8	3.3	6.2
External volumes sold	8.2	34.8	16.7	44.9	24.9	79.7	23.3	102.2
Internal sales (generation)	14.3		15.4		29.7		22.2	
Total volumes sold	57.2		77.1		134.3		147.7	

Conversion factors

LNG	0.0554	PJ/ktonnes
LNG	1.0532	GJ/mmbtu

Abbreviations

\$	Australian dollars, unless stated otherwise
APLNG	Australia Pacific LNG Pty Limited – an incorporated joint venture between Origin, ConocoPhillips and Sinopec
Barrels (bbl)	an international measure of oil production. 1 barrel = 159 litres
CSG	coal seam gas
E&A	Exploration & Appraisal
FID	final investment decision
GJ	gigajoule = 10^9 joules
GLNG	Gladstone Liquefied Natural Gas
joule	primary measure of energy in the metric system
kbbls	Kilo barrels = 1,000 barrels
kT	Kilo tonnes = 1,000 tonnes
LNG	liquefied natural gas
mmbbl	million barrels
mmboe	million barrels of oil equivalent
mmbtu	million British thermal units
mmscf	million standard cubic feet
mtpa	million tonnes per annum
MWh	Megawatt hour = 10^3 kilowatt hours
pa	per annum
PJ	petajoule = 10^{15} joules
PJe	petajoule equivalent, a measure used to express the volume of different petroleum products on the basis of the energy contained in the product
Spudding	to commence drilling a well
t	tonnes
TJ	terajoule = 10^{12} joules
TJ/d	terajoules per day
TWh	Terrawatt hour = 10^9 kilowatt hours
YTD	year to date