

Origin Energy Quarterly Report December 2018



Summary

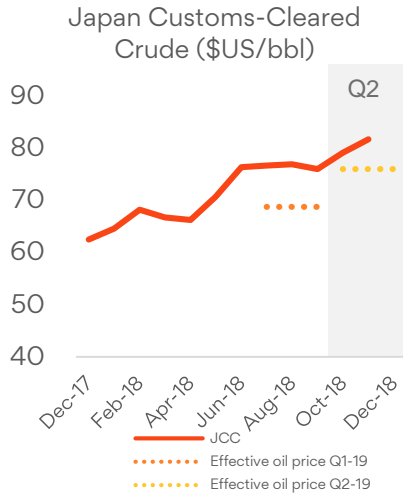


	Unit	Dec-18 QTR	Sep-18 QTR	% Mvt	Dec-17 QTR	% Mvt	FYTD-19	FYTD-18	% Mvt
Integrated Gas (Origin Share)									
Production	PJ	63.1	64.3	(2%)	63.4	-	127.3	126.8	-
Sales	PJe	64.2	63.7	1%	67.1	(4%)	127.9	131.0	(2%)
Commodity Revenue	\$m	740.9	640.5	16%	509.8	45%	1,381.3	984.3	40%
Energy Markets									
Electricity sales	TWh	8.7	9.5	(8%)	9.2	(5%)	18.2	18.9	(4%)
Natural gas sales	PJ	65.0	82.8 ₁	(21%)	64.2	1%	147.7	145.5	2%
Capex – continuing operations	\$m	152	42	261%	77	97%	194	138	41%

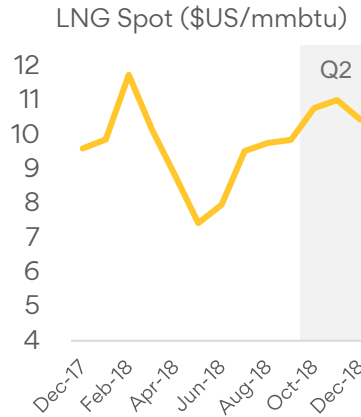
- Origin's share of APLNG revenue increased by 16% on Sep-18 quarter and by 45% on Dec-17 quarter primarily driven by higher realised LNG prices. Production was stable despite planned upstream maintenance.
- Energy Markets' electricity sales volumes decreased by 8% on Sep-18 quarter in line with seasonal demand and by 5% on Dec-17 quarter primarily due to lower usage and customer numbers.
- Energy Markets' gas sales volumes decreased by 21% on Sep-18 quarter due to seasonal demand, but were flat on Dec-17 quarter reflecting new short term Business sales offset by less sales to generation.
- Origin capex primarily relates to Energy Markets. The increase of \$110m from Sep-18 quarter primarily relates to planned maintenance activity in the period.
- Origin received net cash distributions from APLNG of \$393 million over H1 FY2019.

¹⁾ Prior quarter volumes have been restated to include 0.5 PJ supplied through Origin Water, previously omitted

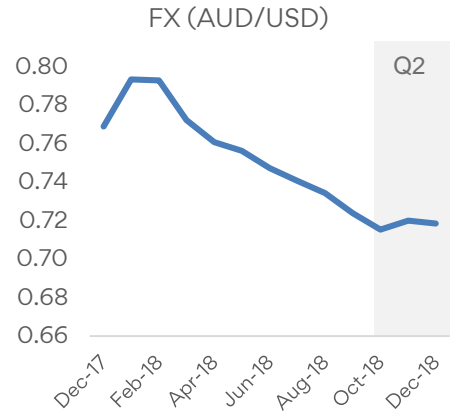
Oil and LNG markets



Source: Petroleum Association of Japan



Source: Origin analysis



Source: Origin analysis

- APLNG's effective oil price in Dec-18 quarter was US\$76/bbl, up from US\$69/bbl in Sep-18 quarter.
- JCC prices strengthened through November on a market deficit caused by looming sanctions on Iran and supply outages in Venezuela and Libya.
- LNG prices increased over the first half of the quarter but began to weaken due to slower industrial activity in China, mild weather in Asia and high gas inventory levels in Europe, along with new LNG liquefaction projects boosting supply.

Integrated Gas



	Unit	Dec-18 QTR	Sept-18 QTR	% Mvt	Dec-17 QTR	% Mvt	FYTD-19	FYTD-18	% Mvt
Total production (ORG share)	PJ	63.1	64.3	(2%)	63.4	-	127.3	126.8	-
LNG (ORG share)									
Production	kt	844.0	766.7	10%	885.7	(5%)	1,610.7	1,711.6	(6%)
Sales	kt	838.6	762.1	10%	922.3	(9%)	1,600.7	1,710.3	(6%)
Commodity Revenue	\$m	650.5	527.0	23%	449.3	45%	1,177.5	834.5	41%
Average realised price	US\$/mmbtu	10.59	9.63	10%	7.14	48%	10.13	7.23	40%
Domestic Gas (ORG share)									
Sales	PJ	17.7	21.4	(17%)	16.0	11%	39.2	36.2	8%
Commodity Revenue	\$m	90.4	113.5	(20%)	60.5	49%	203.9	149.8	36%
Average realised price	\$/GJ	5.10	5.29	(4%)	3.78	35%	5.20	4.13	26%
Origin Only costs									
Origin hedging costs	\$m	(78.1)	(51.1)	53%	(18.1)	331%	(129.2)	(32.0)	304%

- LNG production increased 10% on Sep-18 quarter due to higher customer demand, but was down 5% on Dec-17 quarter which was offset by higher domestic volumes.
- LNG revenue was up 23% on Sep-18 quarter and 45% on Dec-17 quarter due to higher effective oil prices and higher realised spot LNG prices.
- Domestic gas revenue was down by 20% on Sep-18 quarter reflecting lower domestic volumes, but up 49% on Dec-17 quarter due to higher volumes and realised average prices.
- Hedging costs of \$78.1 million increased by 53% on Sep-18 quarter reflecting losses on LNG hedging due to higher realised JKM prices and higher oil hedge premium amortisation.
- Total expected FY2019 oil and LNG hedging costs of \$190 - \$210 million comprise:
 - \$115 - \$125 million oil hedging costs, including \$34 million oil hedge premium; and
 - \$75 - \$85 million LNG hedging costs (unchanged)

Integrated Gas Capex

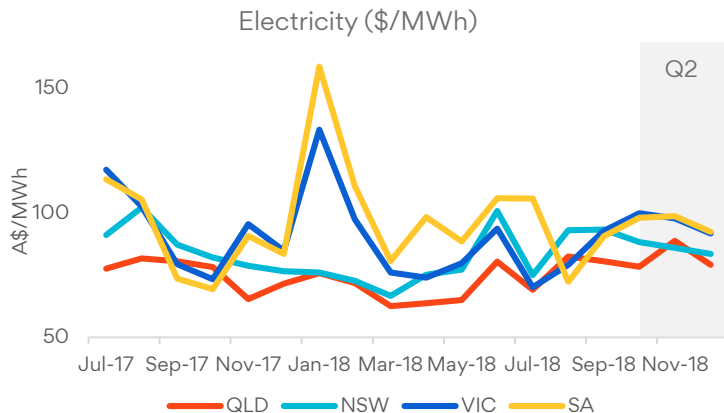


	Unit	Dec-18 QTR	Sept-18 QTR	% Mvt	Dec-17 QTR	% Mvt	YTD-19	YTD-18	% Mvt
Origin Only costs									
Capex - continuing operations	\$m	8	2	300%	5	60%	10	10	-
APLNG Capex (100%)									
Exploration and appraisal	\$m	34	27	26%	15	127%	61	27	126%
Sustain and Other	\$m	245	333	(26%)	264	(7%)	578	578	-

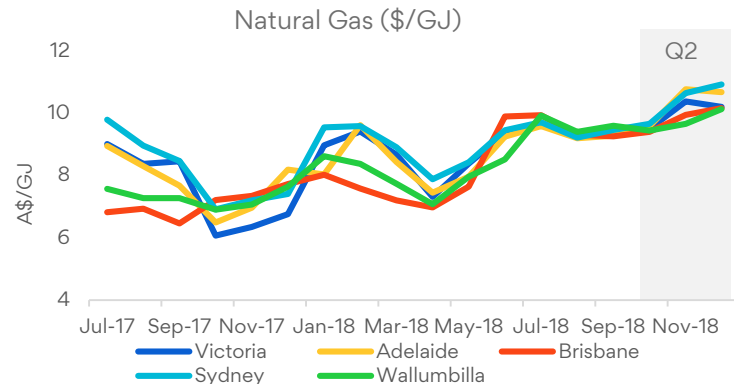
APLNG capex

- E&A spend in the Dec-18 quarter primarily related to completion of Peat 3D seismic, casing and suspending the Burunga South 2 well, and drilling the Westgrove 9 well.
 - Westgrove 9, a deep conventional well, reached a total depth of 4,000 mRT on the 5th of January 2019. Drilling indicated the presence of hydrocarbons and further testing is planned.
- Sustain and Other capex was 26% lower than Sep-18 quarter, reflecting lower operated spend due to:
 - drilling 58 wells in Dec-18 quarter, down from 67 in Sep-18 quarter, in line with expectations;
 - phasing of activity including batching of fracture stimulation - one batch performed in Sep-18 quarter compared to none in Dec-18 quarter; and
 - lower well delivery costs as a result of dollar per well savings.

Electricity and Gas markets



Source: AEMO



Source: AEMO

- Average NEM spot electricity price for Dec-18 quarter was \$90.25/MWh, up \$6.54/MWh from Sep-18 quarter:
 - Higher average VIC and SA prices driven by lower renewable generation, particularly hydro and wind
 - Slightly lower average NSW prices due to higher renewable generation (primarily solar), higher baseload availability and lower demand
 - Slightly higher average QLD prices due to lower gas fired generation and higher demand
- Average domestic spot gas price for December 2018 quarter was \$10.06/GJ, up \$0.61/GJ from Sep-18 quarter.

Energy Markets operations



	Unit	Dec-18 QTR	Sep-18 QTR	% Mvt	Dec-17 QTR	% Mvt	FYTD-19	FYTD-18	% Mvt
Sales volumes									
Electricity sales – Retail	TWh	3.8	4.7	(19%)	4.1	(7%)	8.5	8.9	(4%)
Electricity sales – Business	TWh	4.9	4.8	2%	5.1	(4%)	9.6	10.0	(4%)
Natural gas sales – Retail	PJ	7.0	16.3 ¹	(57%)	6.9	1%	23.3	24.2	(4%)
Natural gas sales – Business	PJ	47.5	54.7	(13%)	41.2	15%	102.2	89.9	14%
Natural gas sales – Internal	PJ	10.5	11.7	(10%)	16.1	(35%)	22.2	31.4	(29%)
Capex – continuing operations	\$m	140	40	250%	70	100%	180	124	45%

- Electricity Retail sales decreased by 19% on Sep-18 quarter in line with seasonal demand, and by 6% on Dec-17 quarter primarily due to lower usage from continued solar penetration and lower customer numbers.
- Gas Retail sales decreased 57% on Sep-18 quarter due to lower seasonal demand.
- Gas Business sales decreased 13% on Sep-18 quarter due to lower seasonal demand, but increased 15% on Dec-17 quarter as gas was redirected to new short term contracts in QLD and away from generation.
- Capex in the quarter primarily comprised of:
 - planned maintenance spend on Uranquinty and Eraring;
 - investment in our retail digital capabilities; and
 - growth spend on Quarantine re-power.

1) Prior quarter volumes have been updated to include volumes supplied through Origin Water, previously omitted

A decorative background consisting of a grid of circles on an orange background. The circles are arranged in 6 rows and 9 columns. Most circles are a light orange color, but two circles in the second row, second and third columns, are a bright yellow color.

Data tables

APLNG sources of gas



	Units	Dec-18 QTR Origin Share 37.5%	Sep-18 QTR Origin Share 37.5%	% Change	Dec-17 QTR Origin Share 37.5%	FYTD2019 Origin Share 37.5%	FYTD2018 Origin Share 37.5%
Production volumes							
Operated							
Spring Gully	PJ	10.0	10.0	-	9.6	20.1	19.0
Peat	PJ	0.2	0.2	-	0.2	0.4	0.5
Denison	PJ	0.1	0.1	-	-	0.1	-
Talinga	PJ	7.1	6.9	3%	6.7	14.0	12.6
Orana	PJ	5.2	6.4	(19%)	6.4	11.6	12.1
Condabri	PJ	12.3	11.8	4%	12.9	24.1	25.0
Combabula/Reedy Creek	PJ	14.1	14.2	(1%)	12.7	28.4	26.6
Total operated production	PJ	49.1	49.6	(1%)	48.5	98.7	95.9
Non-operated							
Fairview/Arcadia (GLNG)	PJ	3.6	3.6	-	3.9	7.3	7.9
Anya (QGC)	PJ	0.1	-	-	-	0.1	-
Kenya East (QGC)	PJ	5.2	5.4	(4%)	4.9	10.7	10.7
Kenya (QGC)	PJ	4.8	5.4	(11%)	5.7	10.2	11.7
Bellevue (QGC)	PJ	0.3	0.3	-	0.3	0.5	0.7
Total non-operated production	PJ	14.0	14.6	(4%)	14.9	28.6	30.9
Total upstream production	PJ	63.1	64.3	(2%)	63.4	127.3	126.8
Natural gas purchases	PJ	4.2	3.7	14%	4.0	7.9	10.0
Changes in Upstream gas inventory/other	PJ	1.0	(0.7)	N.a.	1.6	0.3	2.0
Total sources of natural gas	PJ	68.3	67.3	1%	69.0	135.5	138.8

APLNG uses of gas



Uses of gas	Units	Dec-18 QTR Origin Share 37.5%	Sep-18 QTR Origin Share 37.5%	% Change	Dec-17 QTR Origin Share 37.5%	FYTD2019 Origin Share 37.5%	FYTD2018 Origin Share 37.5%
LNG feed gas	PJ	50.5	45.8	10%	53.0	96.3	102.5
Domestic sales	PJ	17.7	21.4	(17%)	16.0	39.2	36.2
Total uses of natural gas	PJ	68.3	67.3	1%	69.0	135.5	138.8

LNG	Units	Dec-18 QTR Origin Share 37.5%	Sep-18 QTR Origin Share 37.5%	% Change	Dec-17 QTR Origin Share 37.5%	FYTD2019 Origin Share 37.5%	FYTD2018 Origin Share 37.5%
LNG Production	kt	844.0	766.7	10%	885.7	1,610.7	1,711.6
Changes in LNG inventory	kt	(5.4)	(4.6)	17%	36.6	(10.0)	(1.3)
Total LNG sales volume	kt	838.6	762.1	10%	922.3	1,600.7	1,710.3
LNG cargos loaded and shipped¹	#	32	29		35	61	67

1) Number of cargoes reported are 100% APLNG



APLNG Sales



Share of APLNG Sales revenue	Units	Dec-18 QTR Origin Share 37.5%	Sep-18 QTR Origin Share 37.5%	% Change	Dec-17 QTR Origin Share 37.5%	FYTD2019 Origin Share 37.5%	FYTD2018 Origin Share 37.5%
LNG	\$m	650.5	527.0	23%	449.3	1,177.5	834.5
Domestic Gas	\$m	90.4	113.5	(20%)	60.5	203.9	149.8
Total Commodity Revenue (ORG share)	\$m	740.9	640.5	16%	509.8	1,381.3	984.3

Sales – APLNG average realised prices	Units	Dec-18 QTR Origin Share 37.5%	Sep-18 QTR Origin Share 37.5%	% Change	Dec-17 QTR Origin Share 37.5%	FYTD2019 Origin Share 37.5%	FYTD2018 Origin Share 37.5%
LNG	US\$/mmbtu	10.59	9.63	10%	7.14	10.13	7.23
Domestic Gas	\$/GJ	5.10	5.29	(4%)	3.78	5.20	4.13
Average Commodity price	\$/GJe	11.54	10.06	14%	7.59	10.80	7.51

Origin only costs	Units	Dec-18 QTR	Sep-18 QTR	% Change	Dec-17 QTR	FYTD2019	FYTD2018
Hedge premium expense	\$m	(15.3)	(2.2)	596%	(17.1)	(17.4)	(34.5)
Gain / (Loss) on oil hedging	\$m	(27.4)	(27.9)	(2%)	0.1	(55.4)	(0.1)
Gain / (Loss) on LNG hedging	\$m	(35.4)	(21.0)	69%	(1.1)	(56.4)	2.6
Total	\$m	(78.1)	(51.1)	53%	(18.1)	(129.2)	(32.0)

Operated drilling & production



APLNG Operated Production Wells

		Avg daily production (APLNG share)		Development Wells	
				Wells drilled	Wells commissioned
Bowen	Spring Gully	290.7 TJ/d	Dec-18 QTR FYTD 2019	1 1	- 1
	Peat	5.1 TJ/d	Dec-18 QTR FYTD 2019	- -	- -
	Denison	1.5 TJ/d	Dec-18 QTR FYTD 2019	- -	- -
Surat	Talinga	206.0 TJ/d	Dec-18 QTR FYTD 2019	- -	2 29
	Orana	151.8 TJ/d	Dec-18 QTR FYTD 2019	- 2	2 28
	Condabri	357.0 TJ/d	Dec-18 QTR FYTD 2019	- 16	1 8
	Combabula / Reedy Creek	409.6 TJ/d	Dec-18 QTR FYTD 2019	57 106	62 90
TOTAL		1,421.8 TJ/d	Dec-18 QTR FYTD 2019	58 125	67 156

Non-Operated drilling & production



APLNG Non-Operated Production Wells

		Avg daily production (APLNG share)	Development Wells		
				Wells drilled	Wells commissioned
GLNG	Fairview	103.0 TJ/d	Dec-18 QTR FYTD 2019	15 33	28 50
	Arcadia	1.8 TJ/d	Dec-18 QTR FYTD 2019	33 51	9 9
	Roma East	0.0 TJ/d	Dec-18 QTR FYTD 2019	25 70	65 80
QGC	Anya	2.7 TJ/d	Dec-18 QTR FYTD 2019	- 4	6 31
	Kenya East	150.9 TJ/d	Dec-18 QTR FYTD 2019	- 40	34 42
	Kenya	139.8 TJ/d	Dec-18 QTR FYTD 2019	- 9	- 7
	Bellevue	8.2 TJ/d	Dec-18 QTR FYTD 2019	4 4	- -
TOTAL		406.4 TJ/d	Dec-18 QTR FYTD 2019	77 211	142 219

Energy Markets sales volumes



Electricity sales volume (TWh)

Volumes sold (TWh)	Dec-18 QTR		Sep-18 QTR		FYTD2019		FYTD2018	
	Retail	Business	Retail	Business	Retail	Business	Retail	Business
NSW	1.8	2.5	2.3	2.3	4.1	4.8	4.2	4.6
Queensland	1.1	0.9	1.1	0.9	2.2	1.8	2.4	2.0
Victoria	0.7	1.1	0.9	1.2	1.6	2.2	1.7	2.5
South Australia	0.3	0.5	0.3	0.4	0.7	0.9	0.6	1.0
Total volumes sold	3.8	4.9	4.7	4.8	8.5	9.6	8.9	10.0

Natural Gas sales volume (PJ)

Volumes sold (PJ)	Dec-18 QTR		Sep-18 QTR		FYTD2019		FYTD2018	
	Retail	Business	Retail	Business	Retail	Business	Retail	Business ²
NSW	1.9	4.9	3.6	5.8	5.5	10.6	5.1	12.0
Queensland	0.8	29.4	1.0 ¹	26.5	1.7	55.9	1.6	44.6
Victoria	3.2	10.4	9.6 ¹	19.0	12.8	29.4	14.5	27.1
South Australia	1.1	2.8	2.1	3.4	3.3	6.2	3.0	6.2
External volumes sold	7.0	47.5	16.3	54.7	23.3	102.2	24.2	89.9
Internal sales (generation)		10.5		11.7		22.2		31.4
Total volumes sold		65.0		82.8		147.7		145.5

1) Prior quarter volumes have been updated to include volumes supplied through Origin Water, previously omitted

2) Prior year volumes have been restated to allocate trading volumes to the relevant States (previously included in QLD)

Conversion factors and abbreviations



Conversion factors

LNG	0.0554	PJ/ktonnes
LNG	1.0532	GJ/mmbtu

Abbreviations

\$	Australian dollars, unless stated otherwise
APLNG	Australia Pacific LNG – an incorporated Joint Venture between Origin, ConocoPhillips and Sinopec
barrels	an international measure of oil production. 1 barrel = 159 litres
Bopd	barrels of oil per day
bwpd	barrels of water per day
C&C	cased and completed
C&S	cased and suspended
CSG	coal seam gas
FID	final investment decision
GJ	gigajoule = 10^9 joules
joule	a measure of energy
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
mRT	Measured depth below rotary table in meters
mtpa	million tonnes per annum
P&A	plugged and abandoned
P&S	plugged and suspended
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
QGC	Queensland Gas Company
Spudding	to commence drilling a well
SWQ	South West Queensland
t	tonnes
TJ	terajoule = 10^{12} joules
TJ/d	terajoules per day
YTD	year to date