

Origin Energy Quarterly Report September 2019



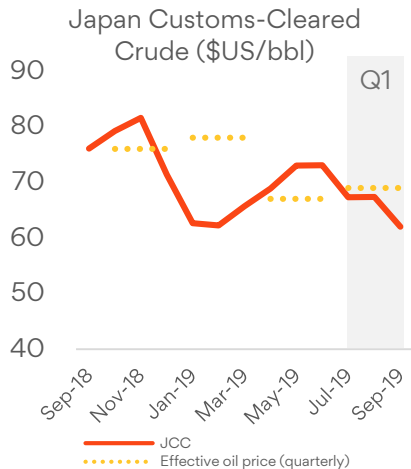
Overview of quarterly result



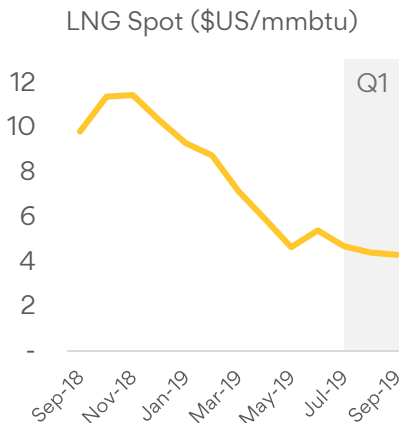
	Unit	Sep-19	Jun-19	% Mvt	Sep-18	% Mvt
Integrated Gas – Share of APLNG						
Production	PJ	66.5	64.0	4%	64.3	3%
Sales	PJe	63.1	62.3	1%	63.7	(1%)
Commodity Revenue	\$m	687.9	643.4	7%	640.5	7%
Energy Markets						
Electricity sales	TWh	8.7	8.7	-	9.5	(8%)
Natural gas sales	PJ	77.1	65.1	18%	82.8	(7%)
Corporate						
Origin capex	\$m	97	76	28%	40	143%
Investments	\$m	3	1	200%	2	50%

- APLNG production up 4% on Jun-19 quarter with higher well availability and the ERIC pipeline online from July 2019.
- APLNG revenue up 7% on both Jun-19 and Sep-18 quarters driven by higher effective A\$ oil prices and higher LNG volumes.
- Energy Markets electricity volumes flat on Jun-19 quarter, but down 8% on Sep-18 due to lower Business sales, Retail average usage, customer numbers and market revisions.
- Energy Markets gas volumes up 18% on Jun-19 quarter reflecting seasonality and higher volumes to generation, but down 7% on Sep-18 quarter due to non-recurrence of short term wholesale contracts.
- Origin capex of \$97 million primarily related to generation maintenance and Beetaloo appraisal.
- Additionally, on 5 August 2019 the sale of Ironbark to APLNG settled for \$231 million.

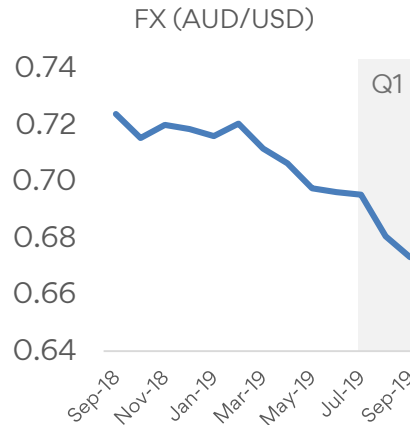
Oil and LNG markets



Source: Petroleum Association of Japan, Origin analysis



Source: IHS Markit¹



- APLNG's effective oil price in the Sep-19 quarter was US\$69/bbl, up from US\$67/bbl in the Jun-19 quarter but unchanged from the Sep-18 quarter (also US\$69/bbl).
- The AUD oil price in the Sep-19 quarter was A\$101/bbl, up from A\$95/bbl in the Jun-19 quarter and A\$94/bbl in the Sep-18 quarter.
- JCC prices weakened in the quarter, largely due to softer global oil consumption growth.
- Spot LNG prices remained weak in the quarter driven by additional supply from new projects and subdued demand growth.

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Integrated Gas – 37.5% share of APLNG



	Unit	Sep-19	Jun-19	% Mvt	Sep-18	% Mvt
Total production (ORG share)	PJ	66.5	64.0	4%	64.3	3%
LNG (ORG share)						
Production	kt	828.7	799.8	4%	766.7	8%
Sales	kt	811.8	793.5	2%	762.1	7%
Commodity Revenue	\$m	601.6	553.7	9%	527.0	14%
Average realised price	US\$/mmbtu	9.67	9.31	4%	9.63	-
Domestic Gas (ORG share)						
Sales	PJ	18.1	18.3	(1%)	21.4	(15%)
Commodity Revenue	\$m	86.3	89.6	(4%)	113.5	(24%)
Average realised price	\$/GJ	4.76	4.89	(3%)	5.29	(10%)
Origin Only costs						
Origin hedging/trading costs	\$m	(21.9)	(35.9)	(39%)	(51.1)	(57%)

- LNG revenue was up 9% on Jun-19 quarter primarily due to higher effective oil prices, and up 14% on the Sep-18 quarter due to a favourable AUD/USD rate and increased contract volumes.
- Domestic Gas revenue was down 4% on the Jun-19 quarter driven by lower short term contract prices, and down 24% on the Sep-18 quarter due to lower volumes and lower short term contract prices.
- Hedging and trading costs decreased 39% on the Jun-19 quarter reflecting lower oil hedge premium amortisation and a smaller LNG hedge position.

Integrated Gas Capex



	Unit	Sep-19	Jun-19	% Mvt	Sep-18	% Mvt
Origin only capex						
Capex	\$m	5	2	150%	-	n/a
E&A	\$m	10	6	67%	2	400%
APLNG capex (100%)						
E&A	\$m	23	14	64%	27	(15%)
Sustain and Other	\$m	276	307	(10%)	333	(17%)

Origin only capex

- E&A spend in the Sep-19 quarter primarily related to completing civil works and rig mobilisation costs in the Beetaloo. The Kyalla well spudded in October.

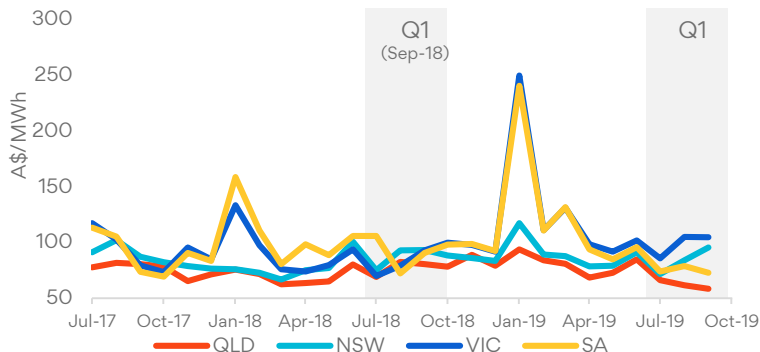
APLNG capex

- E&A spend in the Sep-19 quarter primarily related to drilling and construction of the Peat Flank pilot wells. Mobilisation of equipment continued for Burunga South 2 fracture stimulation and diagnostic fracture injection testing was undertaken on the Westgrove-9 well.
- Sustain and Other capex was 10% lower than Jun-19 quarter primarily driven by timing of spend, a lower number of workovers and decreased infrastructure spend following completion of ERIC pipeline.

Electricity and Gas markets



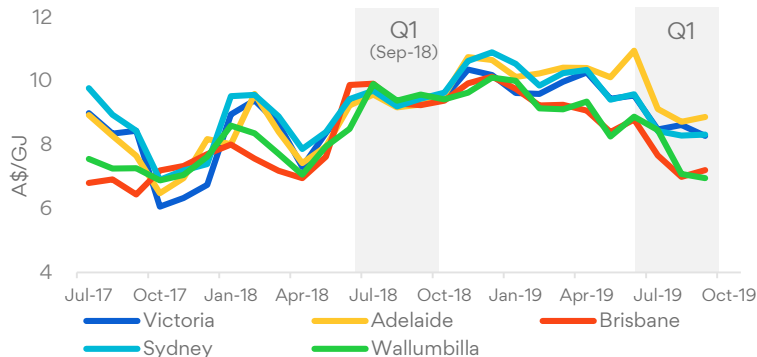
Electricity (\$/MWh)



- Average NEM spot electricity price for Sep-19 quarter was \$79.9/MWh, compared to \$86.8/MWh in the prior quarter and \$83.7/MWh in Sep-18:
 - Lower average prices due to increased renewable generation and the return to service of baseload plant after outages in the prior quarter

Source: AEMO

Natural Gas (\$/GJ)



- Average domestic spot gas price for Sep-19 quarter was \$8.11/GJ, compared to \$9.53/GJ in the prior quarter and \$9.45/GJ in Sep-18
 - Price decline driven by softening Asia region LNG pricing and milder domestic winter conditions

Source: AEMO

Energy Markets operations



	Unit	Sep-19	Jun-19	% Mvt	Sep-18	% Mvt
Sales volumes						
Electricity – Retail	TWh	4.4	4.4	0%	4.7	(6%)
Electricity – Business	TWh	4.4	4.3	2%	4.8	(8%)
Natural gas – Retail	PJ	16.7	12.8	30%	16.3	2%
Natural gas – Business	PJ	44.9	41.0	10%	54.7	(18%)
Natural gas – Internal generation	PJ	15.4	11.3	36%	11.7	32%
Capex	\$m	79	65	22%	38	108%
Investments	\$m	3	1	200%	2	50%

- Electricity Retail and Business sales remained flat on Jun-19 quarter.
- Electricity Retail sales down 6% on Sep-18 quarter due to lower average usage, lower customer numbers and market revisions.
- Electricity Business sales down 8% on Sep-18 quarter due to expiration of Business contracts.
- Gas Retail and Business sales increased on Jun-19 quarter largely reflecting seasonality.
- Gas Retail volumes up 2% on Sep-18 quarter due to higher customer numbers offset by milder weather and lower usage.
- Gas Business volumes down 18% on Sep-18 quarter due to the expiration of Business contracts and non-recurrence of short term sales to wholesale customers in Queensland.
- Gas to generation up 36% on Jun-19 quarter with Darling Downs power station back online after a planned outage, and up 31% on Sep-18 quarter as gas was diverted to wholesale customers in the prior year.
- Capex in the quarter primarily consisted of maintenance on Eraring power station and a major inspection at Uranquinty power station.

A decorative background consisting of a grid of circles on an orange background. The circles are arranged in a 6x9 grid. 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



Production volumes	Units	Sep-19 Origin Share 37.5%	Jun-19 Origin Share 37.5%	% Change	Sep-18 Origin Share 37.5%	% Change
Operated						
Spring Gully	PJ	9.8	9.7	1%	10.0	(2%)
Peat	PJ	0.3	0.3	0%	0.2	50%
Denison	PJ	-	-	n/a	0.1	(100%)
Talinga	PJ	7.3	6.8	7%	6.9	6%
Orana	PJ	6.4	6.6	(3%)	6.4	-
Condabri	PJ	12.4	12.1	2%	11.8	5%
Combabula/Reedy Creek	PJ	15.1	13.4	13%	14.2	6%
Total operated production	PJ	51.3	48.8	5%	49.6	3%
Non-operated						
Fairview (GLNG)	PJ	3.3	3.4	(3%)	3.5	(6%)
Arcadia (GLNG)	PJ	0.1	0.1	-	0.1	-
Angry Jungle ¹ (GLNG)	PJ	0.0	0.0	n/a	0.0	n/a
Anya (QGC)	PJ	0.2	0.2	-	0.0	-
Kenya East (QGC)	PJ	5.5	5.7	(4%)	5.4	2%
Kenya (QGC)	PJ	5.8	5.6	4%	5.4	7%
Bellevue (QGC)	PJ	0.3	0.3	-	0.3	-
Total non-operated production	PJ	15.2	15.2	-	14.6	4%
Total upstream production	PJ	66.5	64.0	4%	64.3	3%
Natural gas purchases	PJ	2.4	2.0	20%	3.7	(35%)
Changes in Upstream gas inventory/other	PJ	(1.1)	0.3	n/a	(0.7)	57%
Total sources of natural gas	PJ	67.8	66.2	2%	67.3	1%

1) Angry Jungle is a sub-section of Roma East

APLNG uses of gas



Uses of gas	Units	Sep-19 Origin Share 37.5%	Jun-19 Origin Share 37.5%	% Change	Sep-18 Origin Share 37.5%	% Change
LNG feed gas	PJ	49.6	47.9	4%	45.8	8%
Domestic sales	PJ	18.1	18.3	(1%)	21.4	(15%)
Total uses of natural gas	PJ	67.8	66.2	2%	67.3	1%

LNG	Units	Sep-19 Origin Share 37.5%	Jun-19 Origin Share 37.5%	% Change	Sep-18 Origin Share 37.5%	% Change
LNG Production	kt	828.7	799.8	4%	766.7	8%
Changes in LNG inventory	kt	(16.9)	(6.3)	168%	(4.6)	267%
Total LNG sales volume	kt	811.8	793.5	2%	762.1	7%
LNG cargoes loaded and shipped¹	#	31	30	3%	29	7%

1) Number of cargoes reported are 100% APLNG

APLNG sales



Share of APLNG commodity revenue	Units	Sep-19 Origin Share 37.5%	Jun-19 Origin Share 37.5%	% Change	Sep-18 Origin Share 37.5%	% Change
LNG	\$m	601.6	553.7	9%	527.0	14%
Domestic Gas	\$m	86.3	89.6	(4%)	113.5	(24%)
Total Commodity Revenue (ORG share)	\$m	687.9	643.4	7%	640.5	7%

Sales – APLNG average realised prices	Units	Sep-19 Origin Share 37.5%	Jun-19 Origin Share 37.5%	% Change	Sep-18 Origin Share 37.5%	% Change
LNG	US\$/mmbtu	9.67	9.31	4%	9.63	-
Domestic Gas	\$/GJ	4.76	4.89	(3%)	5.29	(10%)
Average Commodity price	\$/GJe	10.90	10.33	6%	10.06	8%

Origin only costs	Units	Sep-19	Jun-19	% Change	Sep-18	% Change
Hedge premium expense	\$m	(6.1)	(13.0)	(53%)	(2.2)	177%
Gain / (Loss) on oil hedging	\$m	(1.2)	(1.7)	(29%)	(27.9)	(96%)
Gain / (Loss) on LNG hedging/trading	\$m	(14.6)	(21.2)	(31%)	(21.0)	(30%)
Total	\$m	(21.9)	(35.9)	(39%)	(51.1)	(57%)



Operated drilling & production



APLNG Operated Production Wells

		Avg daily production (APLNG share)	Development Wells	Wells drilled	Wells commissioned
Bowen	Spring Gully	283.6 TJ/d	Sep-19 QTR	7	4
	Peat	7.9 TJ/d	Sep-19 QTR	-	-
	Denison	0.0 TJ/d	Sep-19 QTR	-	-
Surat	Talinga	211.2 TJ/d	Sep-19 QTR	-	-
	Orana	185.6 TJ/d	Sep-19 QTR	13	-
	Condabri	360.4 TJ/d	Sep-19 QTR	19	7
	Combabula / Reedy Creek	437.0 TJ/d	Sep-19 QTR	47	41
TOTAL		1,485.7 TJ/d	Sep-19 QTR	86	52



Energy Markets sales volumes



Electricity sales volume (TWh)

Volumes sold (TWh)	Sep-19 QTR		Jun-19 QTR		Sep-18 QTR	
	Retail	Business	Retail	Business	Retail	Business
New South Wales	2.2	2.2	2.2	2.2	2.3	2.3
Queensland	0.9	0.8	1.1	0.8	1.1	0.9
Victoria	0.8	0.9	0.8	0.9	0.9	1.2
South Australia	0.4	0.4	0.3	0.5	0.3	0.4
Total volumes sold	4.4	4.4	4.4	4.3	4.7	4.8

Natural Gas sales volume (PJ)

Volumes sold (PJ)	Sep-19 QTR		Jun-19 QTR		Sep-18 QTR	
	Retail	Business	Retail	Business	Retail	Business
New South Wales	4.0	5.0	3.1	5.1	3.6	5.8
Queensland	1.0	17.3	0.9	16.9	1.0	26.5
Victoria	9.7	19.4	7.2	16.3	9.6	19.0
South Australia	2.1	3.2	1.6	2.7	2.1	3.4
External volumes sold	16.7	44.9	12.8	41.0	16.3	54.7
Internal sales (generation)	15.4		11.3		11.7	
Total volumes sold	77.1		65.1		82.8	

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 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
kbbbls	Kilo barrels = 1,000 barrels
kT	Kilo tonnes = 1,000 tonnes
LNG	liquefied natural gas
mmbbl	million barrels
mamboe	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
QGC	Queensland Gas Company
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