



## ASX/Media Release

30 October 2020

### Quarterly Report September 2020

Origin Energy (Origin) has released its Quarterly Report for the period to 30 September 2020, covering the performance of its Integrated Gas and Energy Markets divisions.

#### Integrated Gas

- September quarter production was stable compared to the prior quarter, with higher operated production offset by reduced non-operated production due to planned maintenance.
- Revenue fell 39 per cent during the quarter primarily driven by lower realised prices. Sales volumes also declined by 4 per cent, with lower purchases and less gas volume taken from non-operated production due to lower demand.
- September quarter realised price was A\$6.52/GJ, comprising an average LNG price (contracted and spot) of US\$5.81/mmbtu (A\$7.73/GJ) and an average domestic price of A\$3.30/GJ.

#### Energy Markets

- Electricity sales volumes were in line with the corresponding quarter in 2019: 5 per cent increase in Retail volumes largely driven by higher residential demand, with a 6 per cent reduction in Business volumes largely due to COVID-19.
- Gas volumes declined 7 per cent on September 2019 quarter: 5 per cent increase in Retail volumes was more than offset by a reduction in Business volumes and sales to generation.

Origin Energy CEO, Frank Calabria said, “Gas production was steady for the quarter, however as expected, realised prices were lower as the lagged impact of oil prices on Australia Pacific LNG’s contracts started to flow through to revenues. The majority of sales are under long-term contracts, which provided some protection from soft LNG spot prices during the quarter.

“With demand for LNG continuing to be subdued and strong performance from our gas fields, Origin has reduced drilling activity for the year across upstream operations at Australia Pacific LNG, with Origin’s share of capital expenditure \$33 million lower for the quarter.

“We are progressing well with our exploration in the Beetaloo, recently completing fracture stimulation which paves the way for extended production testing. We look forward to sharing further updates on our Beetaloo activity soon.

“It is encouraging to see electricity demand has largely stabilised and returned to pre-COVID levels in most states, however business demand remains impacted, particularly in Victoria where there have been ongoing restrictions.

“We continue to make good progress on the Kraken roll out, with a small team of energy specialists trained in the platform and ready to service the first cohort of 50,000 customers that are targeted to be migrated by the end of 2020.

“We also continue to help customers who have been financially impacted by the pandemic, and will be extending our support package, including no disconnections for customers who keep in touch with us about any payment difficulty. We encourage any customer having trouble paying their bill to reach out so we can help,” Mr Calabria said.



## Quarterly results overview

	Unit	Sep-20	Jun-20	% Mvt	Sep-19	% Mvt
<b>Integrated Gas – Share of APLNG</b>						
Production	PJ	64.2	64.5	0%	66.5	(3%)
Sales	PJ	57.4	59.8	(4%)	63.2	(9%)
Commodity Revenue	\$m	373.9	610.2	(39%)	688.3	(46%)
Average commodity price	A\$/GJ	6.52	10.21	(36%)	10.89	(40%)
<b>Energy Markets</b>						
Electricity sales	TWh	8.7	7.8	11%	8.8	(1%)
Natural gas sales	PJ	72.0	67.2	7%	77.1	(7%)
<b>Corporate</b>						
Origin capex	\$m	74	127	(42%)	97	(24%)
Origin investments	\$m	1	141	(99%)	3	(67%)

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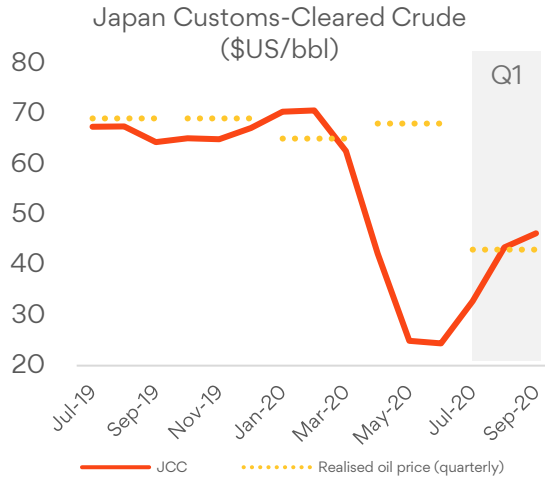
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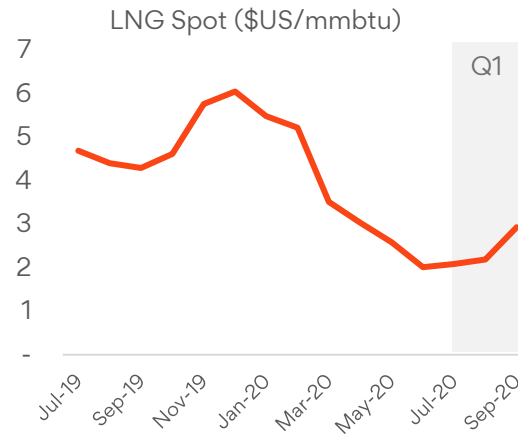
# Origin Energy Quarterly Report September 2020



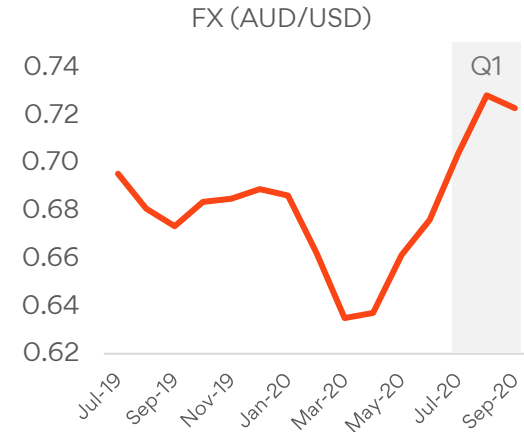




Source: Petroleum Association of Japan, Refinitiv



Source: IHS Markit<sup>1</sup>



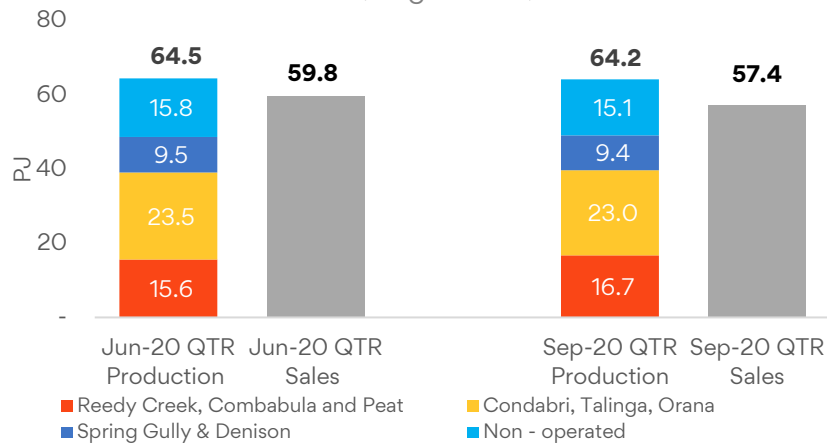
- APLNG's realised lagged oil price in the Sep-20 quarter was US\$43/bbl (A\$60/bbl), down from US\$68/bbl (A\$104/bbl) in the Jun-20 quarter and US\$69/bbl (A\$101/bbl) in the Sep-19 quarter
- JCC prices have improved from June-20 quarter reflecting continued recovery in global oil demand coinciding with OPEC+ supply restrictions and US production curtailment
- Spot LNG prices started to recover in September as global gas demand improved along with constrained production at LNG plants. Prices are expected to recover further in Q2 FY2021 with LNG spot prices now above US\$6.50/mmbtu for December deliveries.

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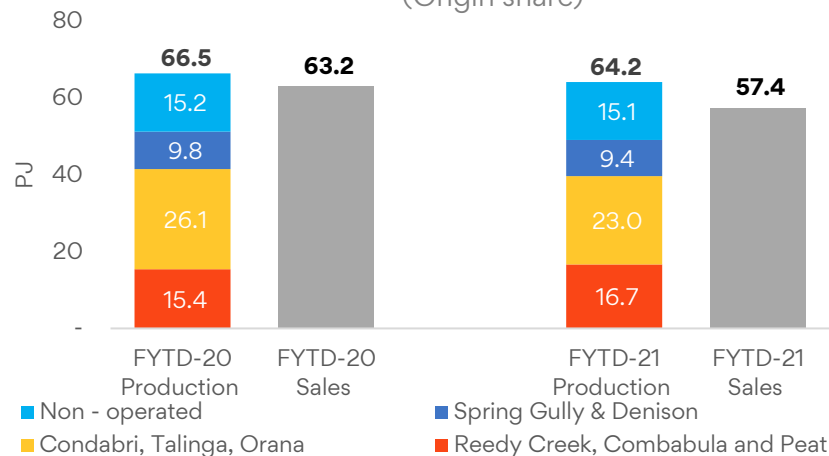
# APLNG production stable, sales volumes lower versus prior quarter



Quarterly production and sales volumes  
(Origin share)



FYTD production and sales volumes  
(Origin share)



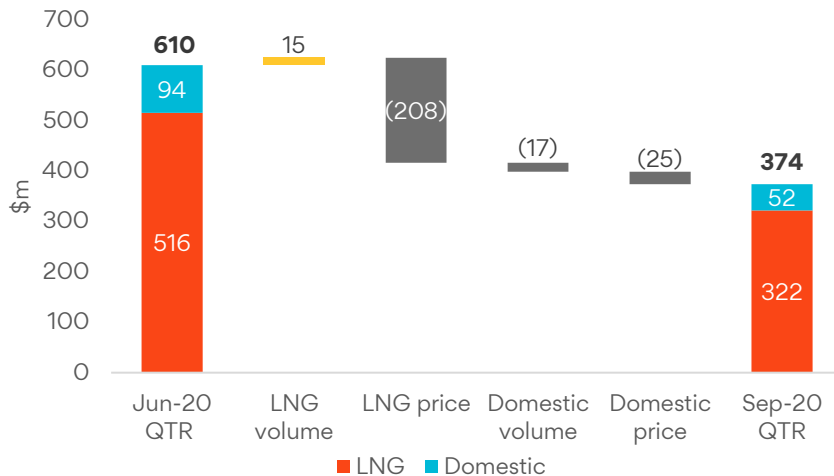
- Sep-20 quarter production stable vs Jun-20 quarter:
  - reduced non-operated production driven by planned maintenance activities
  - offset by higher operated production
- Sep-20 quarter sales volume down 4% vs Jun-20 quarter due to lower purchases and less gas volumes lifted from non-operated production in response to lower demand

- FYTD-21 production down 3% from Sep-19 quarter:
  - reduced production primarily at Condabri, Talinga, Orana in response to lower demand and planned facility maintenance
  - partially offset by increases at Reedy Creek, Combabula and Peat with ramp up of ERIC pipeline and planned facility maintenance in Sep-19 quarter
- FYTD-21 sales volume down 9% due to lower purchases and less gas volumes lifted from non-operated production in response to lower demand

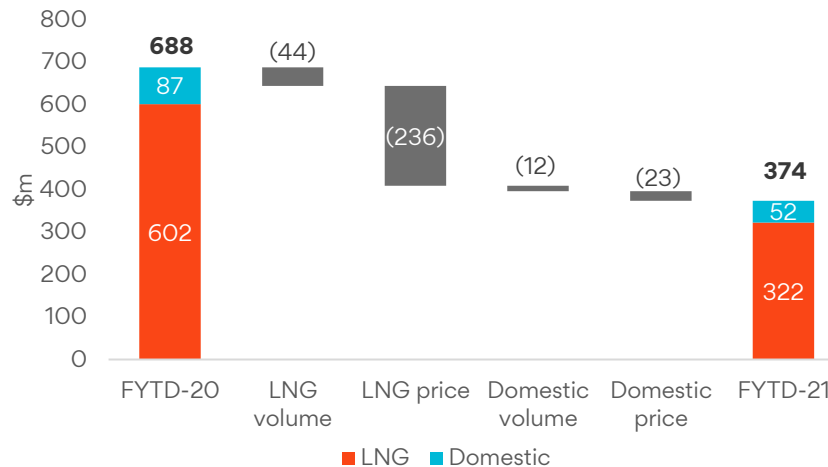
# APLNG revenue down from prior quarter driven by realised prices



Sep-20 QTR vs Jun-20 QTR (Origin Share)



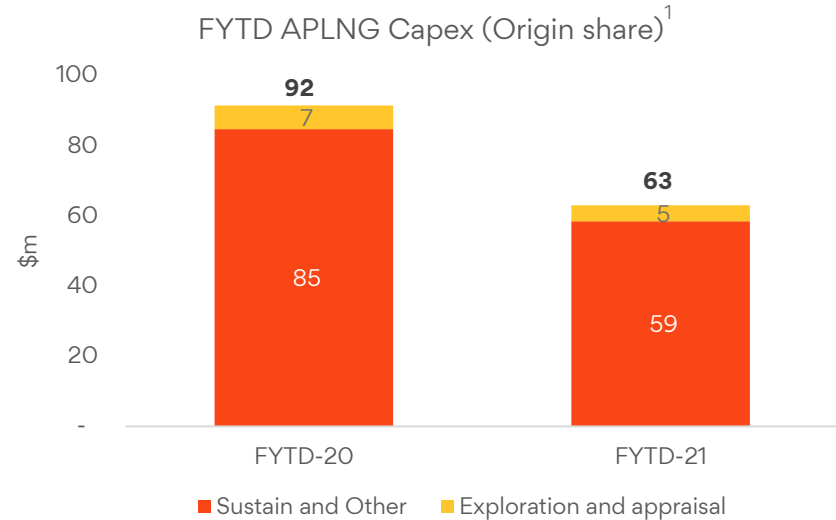
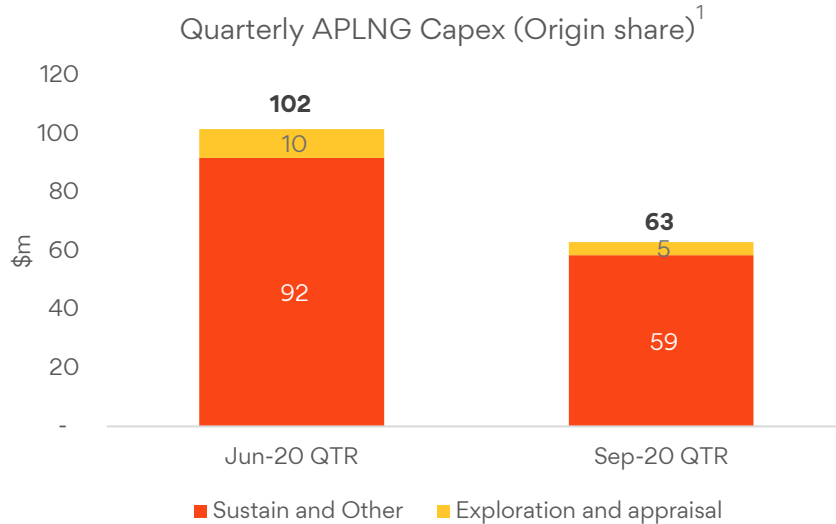
FYTD-21 vs FYTD-20 (Origin Share)



- APLNG revenue down 39% on Jun-20 quarter:
  - LNG revenue down 38% primarily due to lower realised oil prices
  - Domestic revenue down 45% driven by lower short term volumes and prices as well as lower realised prices on legacy oil linked sales to QGC

- APLNG revenue down 46% on prior year:
  - LNG revenue down 46% due to lower realised oil prices and lower volumes
  - Domestic revenue down 40% driven by lower short term volumes and prices as well as lower realised prices on legacy oil linked sales to QGC

# APLNG capital expenditure (Origin share)

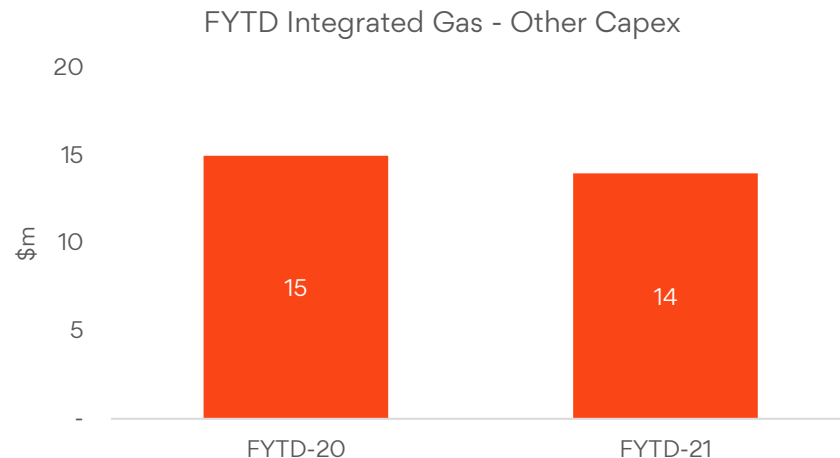
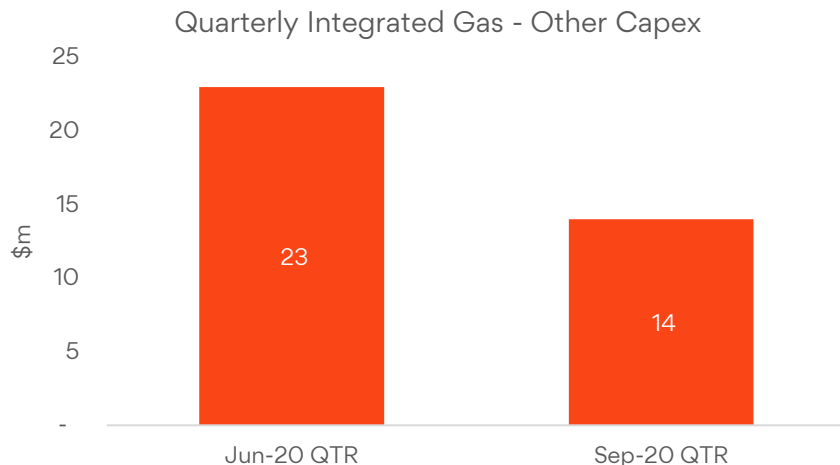


- Sustain and other capex is \$33 million (36%) lower due to decreased development activity related to a ramp down in drilling, lower infrastructure spend and a decrease in non-operated development work programs

- Sustain and other capex is down \$26 million (31%) driven by decreased development activity related to a ramp down in drilling and lower non-operated activity, including a decision to not participate in certain less economic well packages

1) APLNG capex is reported on an accrual basis.

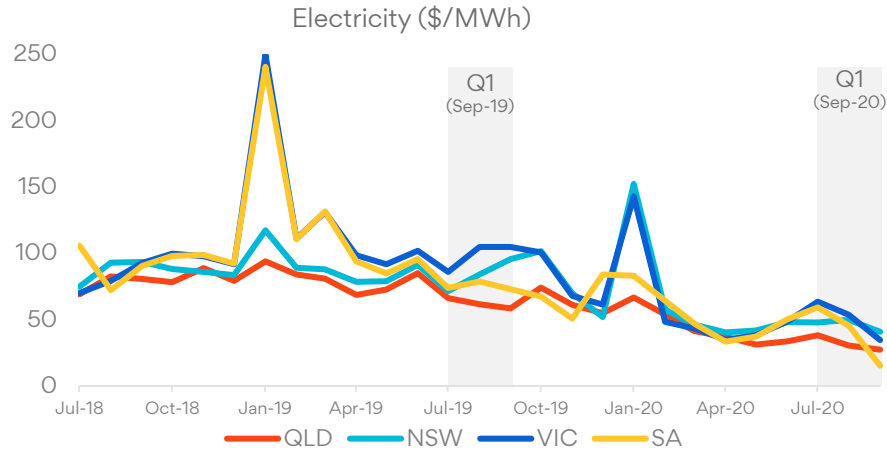




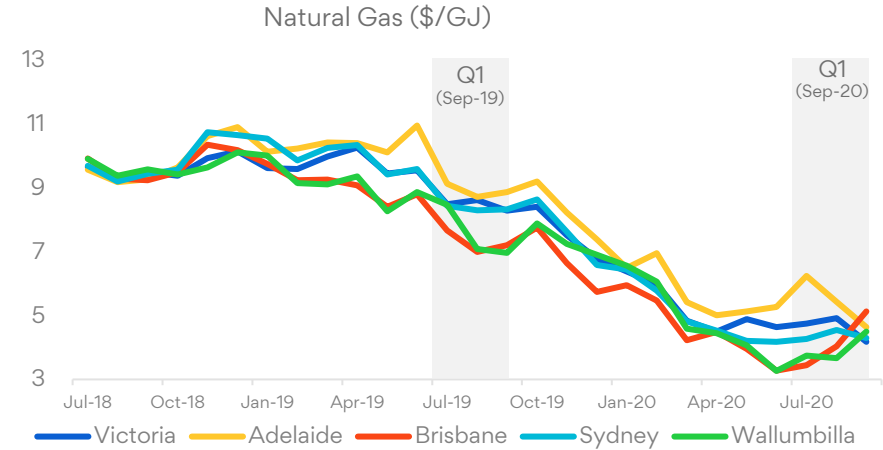
- In September 2020, operations re-commenced in the Beetaloo, after pausing activity in March 2020 due to COVID-19
- Sep-20 quarter spend primarily relates to exploration and appraisal in the Beetaloo Basin, including fracture stimulation and mobilisation costs at the Kyalla well site



# Electricity and natural gas markets



Source: AEMO



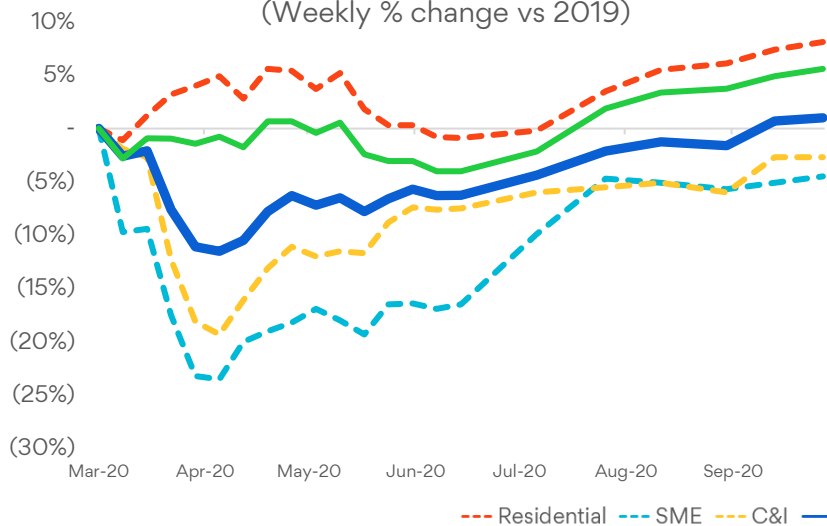
Source: AEMO

- Average NEM spot electricity price for the Sep-20 quarter was \$42.2/MWh, a significant decrease from \$79.9/MWh in the Sep-19 quarter and a modest increase from \$39.6/MWh in the Jun-20 quarter:
  - Decline from Sep-19 due to lower demand as a result of COVID-19, lower fuels costs for gas and coal generation and increased renewable penetration
  - Increase from Jun-20 quarter due to higher seasonal demand and baseload outages
- Average domestic spot gas price for the Sep-20 quarter was \$4.53/GJ, compared to \$8.11/GJ in Sep-19 quarter and \$4.39/GJ in the Jun-20 quarter:
  - Decrease from Sep-19 driven by linkage to lower Asian LNG prices, reflecting the impact of COVID-19 on demand and storage levels

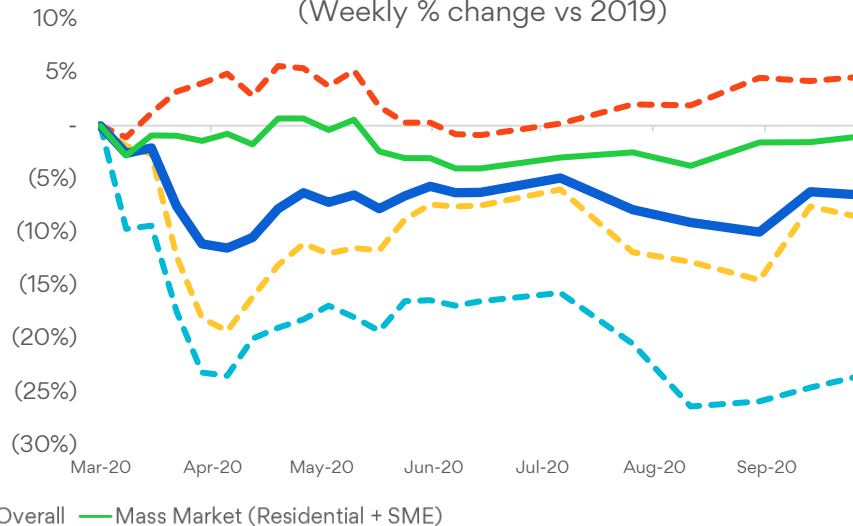
# COVID-19 impacts on state electricity demand



NSW, Queensland and SA COVID-19 Impact on Demand  
(Weather Corrected)  
(Weekly % change vs 2019)



Victoria COVID-19 Impact on Demand  
(Weather Corrected)  
(Weekly % change vs 2019)

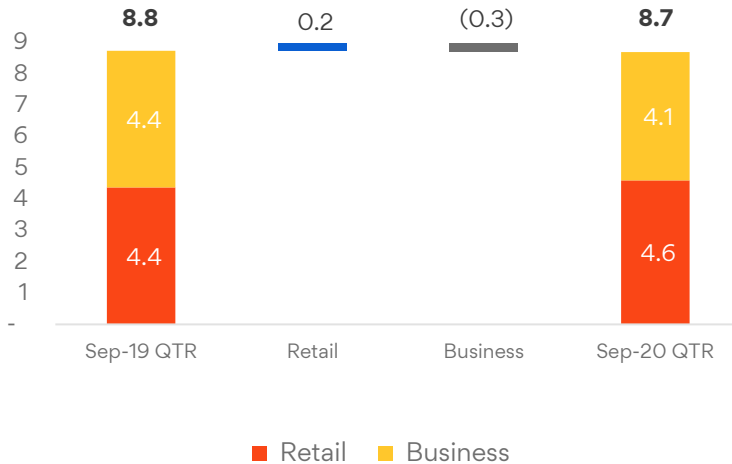


Source: Origin customer meter data and internal analysis

- Weather corrected demand across all NEM states, with exception of Victoria, has returned to FY2019 levels reflecting higher residential demand offset by reductions in SME and C&I, which have partially recovered since the June-20 quarter
- Weather corrected demand in Victoria remains below FY2019 levels driven by lower C&I demand due to lock down restrictions. Retail demand has returned to pre-COVID levels due to higher residential demand offset by lower SME demand

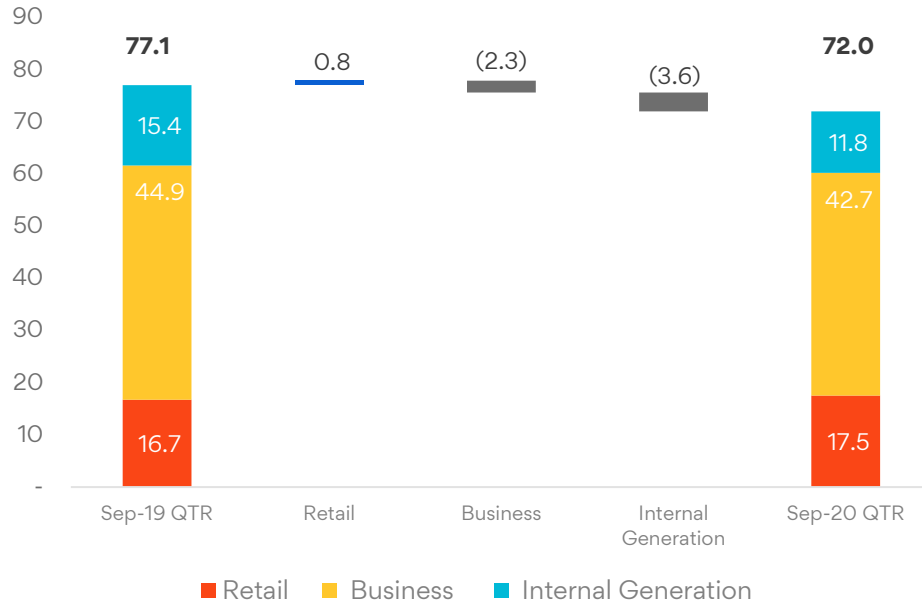


Sep-20 Quarter vs Sep-19 Quarter  
(TWh)



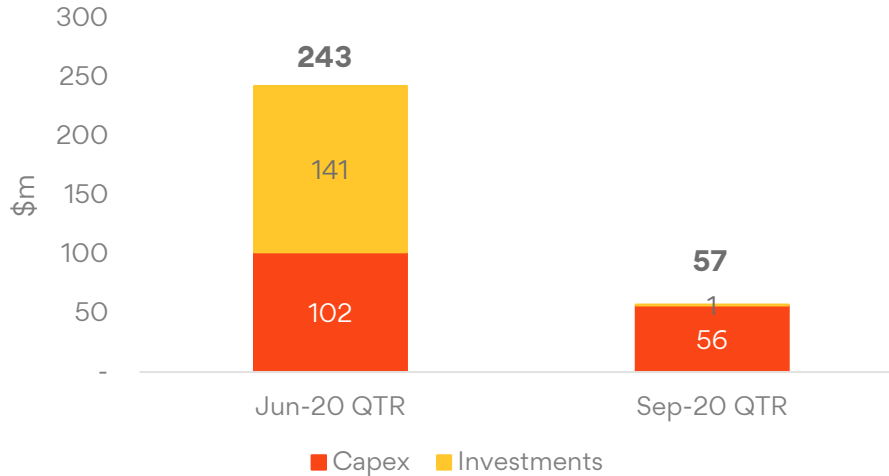
- Retail volumes up 5% on Sep-19 quarter due to
  - net increase due to COVID-19 (0.2 TWh) – higher residential demand partly offset by lower SME demand;
  - lower usage due to solar uptake and energy efficiencies (-0.1 TWh); and
  - cooler weather across all states (0.1 TWh)
  - customer numbers were stable
- Business volumes down 6% on Sep-19 quarter due to COVID-19 impacts, partly offset by new contracts

Sep-20 Quarter vs Sep-19 Quarter  
(PJ)



- Retail volumes up 5% on Sep-19 quarter due to increased residential demand (0.4 PJ), a cooler winter (0.2 PJ), and higher customer numbers (0.2 PJ)
- Business volumes down 5% primarily due to impacts of COVID-19 including lower demand from wholesale customers (-4.1 PJ) partially offset by new contract wins (1.8 PJ)
- Gas to generation down 23% on Sep-19 quarter due to lower pool prices and lower demand
- As lockdown restrictions continue, volumes in Victoria decreased (-1.2 PJ) due to lower Business demand (-1.6 PJ) offset by increased Retail demand (0.4 PJ) also reflecting cooler weather and increased customer numbers

Quarterly Energy Markets capex and investments



- Capex in Sep-20 quarter included generation maintenance activity, LPG and spend in preparation for the move to 5 minute settlement of pool prices
- Jun-20 investments primarily reflect initial payments relating to the 20% equity interest in Octopus Energy, including transaction costs (\$128 million)

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## Data tables



# Integrated Gas – APLNG 100%



APLNG	Unit	Sep-20	Jun-20	% Change	Sep-19	% Change
Total production	PJ	171.3	172.0	(0%)	177.3	(3%)
Total sales	PJe	153.0	159.4	(4%)	168.5	(9%)
<b>LNG</b>						
Production	kt	2,002.2	1,936.4	3%	2,209.9	(9%)
Sales	kt	2,008.3	1,952.5	3%	2,164.8	(7%)
Commodity Revenue	\$m	859.5	1,376.0	(38%)	1,604.3	(46%)
Average realised price	US\$/mmbtu	5.81	8.80	(34%)	9.67	(40%)
<b>Domestic Gas</b>						
Sales	PJ	41.7	51.2	(19%)	48.6	(14%)
Commodity Revenue	\$m	137.5	251.1	(45%)	231.2	(40%)
Average realised price	\$/GJ	3.30	4.90	(33%)	4.76	(31%)
<b>APLNG capex<sup>1</sup></b>						
E&A	\$m	12	26	(54%)	18	(14%)
Sustain and Other	\$m	156	245	(36%)	226	(31%)

1) APLNG capex is reported on an accrual basis.



# APLNG sources of gas – APLNG 100%



Production volumes	Units	Sep-20	Jun-20	% Change	Sep-19	% Change
<b>Operated</b>						
Spring Gully	PJ	25.0	25.3	(1%)	26.1	(4%)
Peat	PJ	0.9	0.6	50%	0.7	29%
Talinga	PJ	17.4	16.3	7%	19.4	(10%)
Orana	PJ	13.5	16.4	(18%)	17.1	(21%)
Condabri	PJ	30.5	30.3	1%	33.2	(8%)
Combabula/Reedy Creek	PJ	43.7	41.2	6%	40.2	9%
<b>Total operated production</b>	<b>PJ</b>	<b>131.1</b>	<b>130.0</b>	<b>1%</b>	<b>136.7</b>	<b>(4%)</b>
<b>Non-operated</b>						
Fairview (GLNG)	PJ	8.2	8.4	(2%)	8.9	(8%)
Arcadia (GLNG)	PJ	0.7	0.4	75%	0.2	250%
Angry Jungle (GLNG)	PJ	0.9	0.7	29%	0.1	800%
Anya (QGC)	PJ	0.3	0.4	(25%)	0.5	(40%)
Kenya East (QGC)	PJ	14.0	14.6	(4%)	14.7	(5%)
Kenya (QGC)	PJ	15.1	16.4	(8%)	15.4	(2%)
Bellevue (QGC)	PJ	1.0	1.1	(9%)	0.9	11%
<b>Total non-operated production</b>	<b>PJ</b>	<b>40.3</b>	<b>42.0</b>	<b>(4%)</b>	<b>40.6</b>	<b>(1%)</b>
<b>Total upstream production</b>	<b>PJ</b>	<b>171.3</b>	<b>172.0</b>	<b>(0%)</b>	<b>177.3</b>	<b>(3%)</b>
Natural gas purchases	PJ	0.7	3.6	(81%)	6.5	(89%)
Changes in Upstream gas inventory/other	PJ	(10.5)	(8.2)	28%	(2.8)	275%
<b>Total sources of natural gas</b>	<b>PJ</b>	<b>161.5</b>	<b>167.4</b>	<b>(4%)</b>	<b>180.9</b>	<b>(11%)</b>

## APLNG Operated Production Wells

		Avg daily production (APLNG share)		Development Wells	
				Wells drilled	Wells commissioned
Bowen	Spring Gully	272 TJ/d	Sep-20 QTR	-	5
	Peat	9 TJ/d	Sep-20 QTR	-	-
Surat	Talinga	190 TJ/d	Sep-20 QTR	1	2
	Orana	147 TJ/d	Sep-20 QTR	3	26
	Condabri	331 TJ/d	Sep-20 QTR	19	4
	Combabula / Reedy Creek	476 TJ/d	Sep-20 QTR	-	30
	<b>TOTAL</b>	<b>1,425 TJ/d</b>	<b>Sep-20 QTR</b>	<b>23</b>	<b>67</b>

# APLNG uses of gas – APLNG 100%



Uses of gas	Units	Sep-20	Jun-20	% Change	Sep-19	% Change
LNG feed gas	PJ	119.7	116.2	3%	132.4	(10%)
Domestic sales	PJ	41.7	51.2	(19%)	48.6	(14%)
<b>Total uses of natural gas</b>	<b>PJ</b>	<b>161.5</b>	<b>167.4</b>	<b>(4%)</b>	<b>180.9</b>	<b>(11%)</b>

LNG	Units	Sep-20	Jun-20	% Change	Sep-19	% Change
LNG Production	kt	2,002.2	1,936.4	3%	2,209.9	(9%)
Changes in LNG inventory	kt	6.1	16.1	(62%)	(45.1)	(114%)
<b>Total LNG sales volume</b>	<b>kt</b>	<b>2,008.3</b>	<b>1,952.5</b>	<b>3%</b>	<b>2,164.8</b>	<b>(7%)</b>
<b>LNG cargoes sold</b>	<b>#</b>	<b>29</b>	<b>28</b>	<b>4%</b>	<b>31</b>	<b>(6%)</b>

1) Number of cargoes reported are 100% APLNG

APLNG commodity revenue	Units	Sep-20	Jun-20	% Change	Sep-19	% Change
LNG	\$m	859.5	1,376.0	(38%)	1,604.3	(46%)
Domestic Gas	\$m	137.5	251.1	(45%)	231.2	(40%)
<b>Total Commodity Revenue</b>	<b>\$m</b>	<b>997.0</b>	<b>1,627.1</b>	<b>(39%)</b>	<b>1,835.4</b>	<b>(46%)</b>

Sales – APLNG average realised prices	Units	Sep-20	Jun-20	% Change	Sep-19	% Change
LNG	\$/GJ	7.73	12.72	(39%)	13.38	(42%)
Domestic Gas	\$/GJ	3.30	4.90	(33%)	4.76	(31%)
<b>Average Commodity price</b>	<b>\$/GJe</b>	<b>6.52</b>	<b>10.21</b>	<b>(36%)</b>	<b>10.89</b>	<b>(40%)</b>

# Integrated Gas – Origin share



APLNG (ORG share)	Unit	Sep-20	Jun-20	% Change	Sep-19	% Change
Total production (ORG share)	PJ	64.2	64.5	(0%)	66.5	(3%)
Total sales (ORG share)	PJe	57.4	59.8	(4%)	63.2	(9%)
<b>LNG (ORG share)</b>						
Production	kt	750.8	726.2	3%	828.7	(9%)
Sales	kt	753.1	732.2	3%	811.8	(7%)
Commodity Revenue	\$m	322.3	516.0	(38%)	601.6	(46%)
Average realised price	US\$/mmbtu	5.81	8.80	(34%)	9.67	(40%)
<b>Domestic Gas (ORG share)</b>						
Sales	PJ	15.6	19.2	(19%)	18.2	(14%)
Commodity Revenue	\$m	51.6	94.2	(45%)	86.7	(40%)
Average realised price	\$/GJ	3.30	4.90	(33%)	4.76	(31%)

Integrated Gas Other	Unit	Sep-20	Jun-20	% Change	Sep-19	% Change
<b>Origin only capex</b>						
Capex	\$m	3	1	200%	5	(40%)
E&A	\$m	11	22	(50%)	10	10%
<b>Origin oil hedging and LNG trading</b>						
Hedge premium expense	\$m	-	1.3	(100%)	(6.1)	(100%)
Gain / (Loss) on oil hedging	\$m	43.2	(0.1)	n/a	(1.2)	n/a
Gain / (Loss) on LNG trading	\$m	(9.9)	11.6	(185%)	(14.6)	(32%)
<b>Total oil hedging and LNG trading gain/(loss)</b>	<b>\$m</b>	<b>33.3</b>	<b>12.8</b>	<b>160%</b>	<b>(21.9)</b>	<b>(252%)</b>

- Hedging/trading gain increased quarter-on-quarter driven by lower realised oil prices, partially offset by a loss on LNG trading positions.

	Unit	Sep-20	Jun-20	% Change	Sep-19	% Change
<b>Sales volumes</b>						
Electricity – Retail	TWh	4.6	4.0	15%	4.4	5%
Electricity – Business	TWh	4.1	3.9	6%	4.4	(6%)
Natural gas – Retail	PJ	17.5	14.2	24%	16.7	5%
Natural gas – Business	PJ	42.7	41.4	3%	44.9	(5%)
Natural gas – Internal generation	PJ	11.8	11.6	2%	15.4	(24%)
Capex	\$m	56	102	(45%)	79	(30%)
Investments	\$m	1	141	(99%)	3	(71%)

## Electricity sales volume (TWh)

Volumes sold (TWh)	Sep-20 QTR		Jun-20 QTR		Sep-19 QTR	
	Retail	Business	Retail	Business	Retail	Business
New South Wales	2.4	2.0	2.0	2.0	2.2	2.2
Queensland	1.1	0.8	0.9	0.8	0.9	0.8
Victoria	0.8	0.8	0.7	0.7	0.8	0.9
South Australia	0.3	0.4	0.3	0.4	0.4	0.4
<b>Total volumes sold</b>	<b>4.6</b>	<b>4.1</b>	<b>4.0</b>	<b>3.9</b>	<b>4.4</b>	<b>4.4</b>

## Natural Gas sales volume (PJ)

Volumes sold (PJ)	Sep-20 QTR		Jun-20 QTR		Sep-19 QTR	
	Retail	Business	Retail	Business	Retail	Business
New South Wales	4.2	7.7	3.3	7.3	4.0	5.0
Queensland	1.1	14.5	0.7	14.7	1.0	17.3
Victoria	10.1	17.8	8.4	16.7	9.7	19.4
South Australia	2.2	2.7	1.7	2.7	2.1	3.2
<b>External volumes sold</b>	<b>17.5</b>	<b>42.7</b>	<b>14.2</b>	<b>41.4</b>	<b>16.7</b>	<b>44.9</b>
Internal sales (generation)		11.8		11.6		15.4
<b>Total volumes sold</b>		<b>72.0</b>		<b>67.2</b>		<b>77.1</b>

## Conversion factors

LNG	0.0554	PJ/ktonnes
LNG	1.0551	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
ERIC	Eurombah Reedy Creek Interconnect
FID	final investment decision
GJ	gigajoule = $10^9$ joules
GLNG	Gladstone Liquefied Natural Gas
JCC	Japan Customs-cleared Crude
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
mmboc	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