

То	Company Announcements Office	 Facsimile	1300 135 638
Company	ASX Limited	Date	29 January 2021
From	Helen Hardy	 Pages	24
Subject	Quarterly Report December 2020		

Please find attached a release on the above subject.

Regards

Authorised by: Helen Hardy Company Secretary

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#### ASX/Media Release

29 January 2021

#### **Quarterly Report December 2020**

Origin Energy (Origin) has released its Quarterly Report for the period to 31 December 2020, covering the performance of its Integrated Gas and Energy Markets divisions.

#### Integrated Gas: record production and increased revenue for the quarter

- Record production by Australia Pacific LNG, rising 6 per cent from the September quarter in response to increased market demand and completion of planned maintenance.
- Commodity revenue increased 6 per cent during the quarter as higher volumes offset lower realised contracted LNG prices. Sales volumes increased 12 per cent, with increased demand resulting in less banking of non-operated production and a draw down on LNG inventory.
- December quarter realised gas price was A\$6.17/GJ, comprising an average LNG price (contracted and spot) of US\$5.20/mmbtu (A\$6.70/GJ) and an average domestic price of A\$4.40/GJ.
- Cash distributions received from Australia Pacific LNG amounted to \$265 million in the period.
- Notice of Discovery lodged with Northern Territory government, with encouraging initial results from the Kyalla well in the Beetaloo. Further work is required to enable it to flow continually without assistance before commencing extended production testing during the dry season.
- Announced a farm-in to prospective Canning Basin with an expected spend over two years of \$35 million and options to assume operatorship for any significant gas and CCS developments.

#### Energy Markets: electricity volumes lower, gas volumes higher for the quarter

- Electricity sales volume reduced 4 per cent on the December 2019 quarter: 5 per cent decrease in Retail due to milder weather, lower usage, and lower SME customer numbers; Business volumes 3 per cent lower with COVID-19 impacts partly offset by new contract wins.
- Gas sales volume increased 1 per cent on the December 2019 quarter: 16 per cent increase in the business segment as contract wins more than offset a 6 per cent decline in retail largely due to COVID-19 impacts on SME and milder weather; gas used in generation fell 29 per cent.
- Announced an additional ~\$65 million investment in Octopus Energy to maintain Origin's 20 per cent equity interest following a partnership between Octopus and Tokyo Gas that will see the launch of Octopus into Japan and Tokyo Gas take a 9.7 per cent stake in Octopus for US\$200 million.

Origin CEO Frank Calabria said, "Strong gas production at Australia Pacific LNG for the quarter eclipsed the previous record, which combined with higher prices on short term domestic and LNG spot sales offset the lagged impact of lower oil prices under long term LNG contracts.

"We are encouraged by initial results in the Beetaloo, which met our primary objective to flow liquids rich gas to surface and confirmed elevated liquids yields and low levels of CO<sub>2</sub>.

"We recently farmed-in to the prospective Canning Basin, giving Origin positions in Australia's three large prospective onshore basins – the Beetaloo, Canning and Cooper-Eromanga – providing exposure to what we believe are the most prospective shale formations in Australia.

"In Energy Markets, electricity demand in the retail segment has increased 1 per cent for the year to date, as residential customers spent more time at home due to COVID-19. However,



we continue to see the impact of the pandemic in the SME and large business segments, particularly in Victoria, with mild summer conditions due to the La Niña weather pattern also impacting demand in the quarter.

"We are making strong progress on our Kraken rollout, passing the milestone of our first 50,000 customers migrated to the new platform in December 2020.

"We are excited by Octopus' continued growth as it launches into the Japan market in partnership with Tokyo Gas. Tokyo Gas has also taken a 9.7 per cent equity stake in Octopus Energy representing a material value uplift since our initial investment, reflecting the company's strong performance and impressive growth trajectory," Mr Calabria said.

#### **Quarterly results overview**

	Unit	Dec-20	Sep-20	% Mvt	Dec-19	% Mvt	FYTD-21	FYTD-20	% Mvt
Integrated Gas - Share of	APLNG								
Production	PJ	68.3	64.2	6%	67.6	1%	132.6	134.1	(1%)
Sales	PJ	64.5	57.4	12%	65.4	(1%)	121.8	128.6	(5%)
Commodity Revenue	\$m	398.0	373.9	6%	716.5	(44%)	771.9	1,404.8	(45%)
Average commodity price	A\$/GJ	6.17	6.52	(5%)	10.95	(44%)	6.34	10.92	(42%)
<b>Energy Markets</b>									
Electricity sales	TWh	8.0	8.7	(8%)	8.3	(4%)	16.7	17.0	(2%)
Natural gas sales	PJ	58.0	72.0	(19%)	57.2	1%	130.0	134.3	(3%)
Corporate									
Origin capex	\$m	98	74	32%	162	(39%)	172	258	(33%)
Origin investments	\$m	48	1	n/m	5	(67%)	48	8	n/m
Net cash from APLNG	\$m	265	-	n/a	425	(38)	265	520	(49)

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# Origin Energy Quarterly Report December 2020

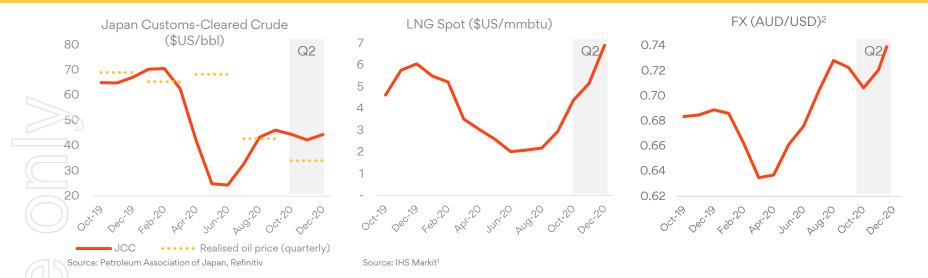




# Integrated Gas

#### Oil and LNG markets





APLNG's realised lagged oil price in the Dec-20 quarter was US\$34/bbl (A\$46/bbl), down from US\$43/bbl (A\$60/bbl) in the Sep-20 quarter and US\$69/bbl (A\$100/bbl) in the Dec-19 quarter

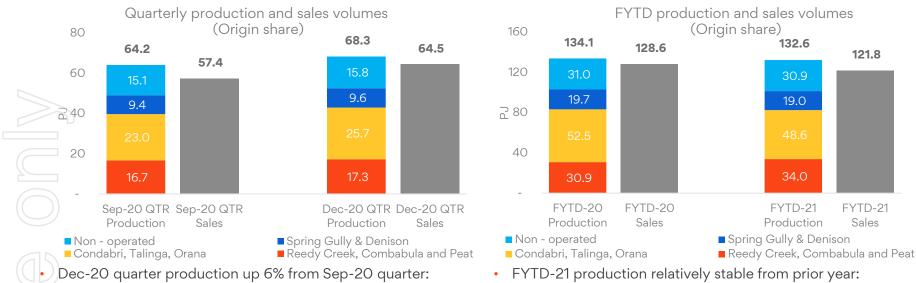
As at 31 December 2020, ~91% of APLNG's FY2021 JCC oil exposure was priced at ~US\$43/bbl, based on contract lags

The Dec 20 quarter saw an improvement in global oil demand, coinciding with OPEC+ supply restrictions, acting to support JCC, while JKM prices were buoyed by strong northern hemisphere winter demand and supply bottlenecks



# APLNG achieves record production in the December-20 quarter



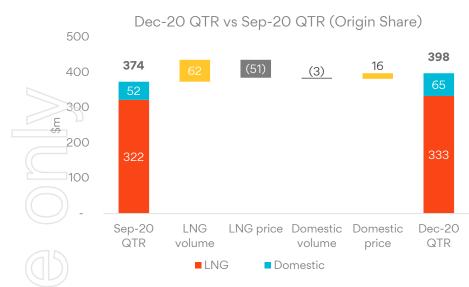


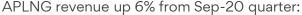
- - Operated production up 7% in response to higher demand
  - Non-operated production up 5% with sustained facility reliability and well availability following completion of planned maintenance in the prior quarter
- Dec-20 quarter sales volume up 12% vs Sep-20 quarter with increased demand resulting in less banking of non-operated production and a drawdown on LNG inventory due to cargo timing

- reduced production primarily in Sep-20 quarter at Condabri, Talinga, Orana in response to lower demand and planned facility maintenance
- partially offset by increases at Reedy Creek/Combabula with ramp up of the ERIC pipeline in the prior period
- FYTD-21 sales volume down 5% as lower demand resulted in less purchases and lower volumes lifted from non-operated production, partially offset by a drawdown in LNG inventory

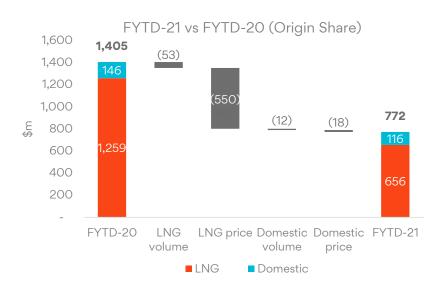
### APLNG revenue up in the quarter but lower than prior year







- LNG revenue up 3% with lower realised oil prices on contract volumes offset by higher spot LNG volumes and prices
- Domestic revenue up 25% due to higher realised prices, including on legacy oil-linked sales to QGC



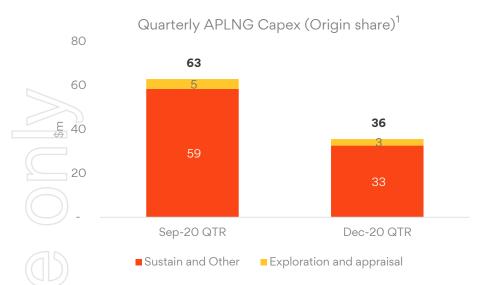
- APLNG revenue down 45% on prior year:
  - LNG revenue down 48% due to lower realised oil prices and lower volumes
  - Domestic revenue down 21% driven by lower legacy contract volumes and lower realised prices on short term contracts and legacy oil-linked sales to QGC



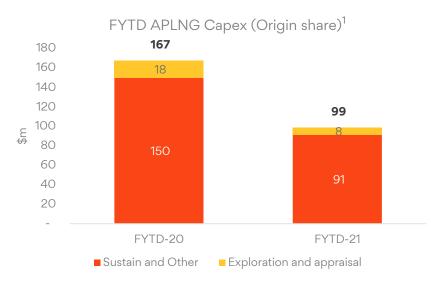


### APLNG capital expenditure (Origin share)





Capex was down \$27 million (43%) from Sep-20 quarter with a continued reduction in development activity primarily related to improved field performance allowing reduced connections and commissioning, lower infrastructure spend and a decrease in non-operated development activity



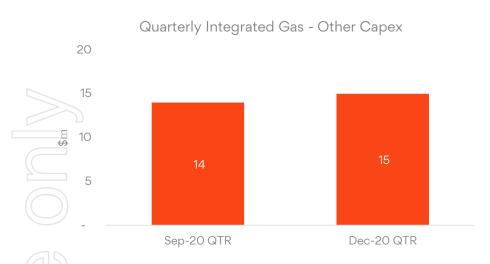
 Capex was down \$68 million (41%) reflecting a ramp down in development activity enabled by strong field performance as well as lower exploration and nonoperated activity

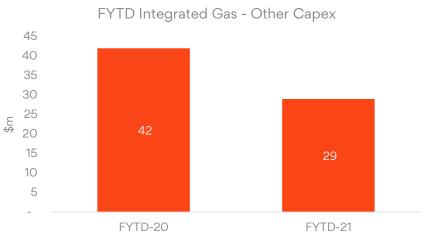


APLNG capex is reported on an accrual basis.

### Integrated Gas - Origin capex







- Dec-20 quarter spend primarily relates to appraisal activity in the Beetaloo Basin, including mobilisation, fracture stimulation and initial flowback activities at the Kyalla well
- Origin also spudded the Obelix-2 well in the Cooper-Eromanga Basin during the quarter and has since completed the well and taken log and core data for evaluation

- Capex spend relates primarily to Beetaloo E&A activity
- Lodged a Notice of Discovery with Northern Territory government after encouraging initial results at Kyalla-117
  - Met objective to flow liquids rich gas to surface and confirmed elevated liquids yields and low levels of CO<sub>2</sub>
  - Further work underway to enable continuous unassisted production, EPT planed in the dry season with results expected in Q4 FY2021

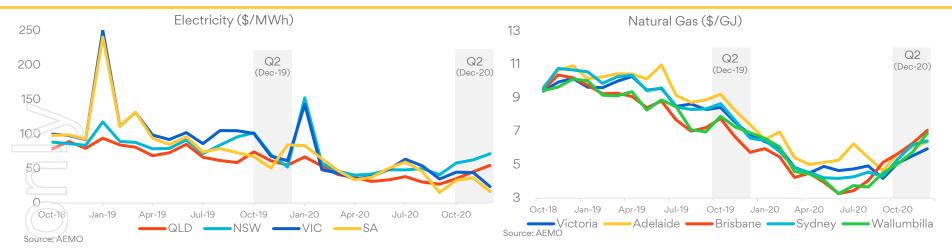




**Energy Markets** 

# Electricity and natural gas markets



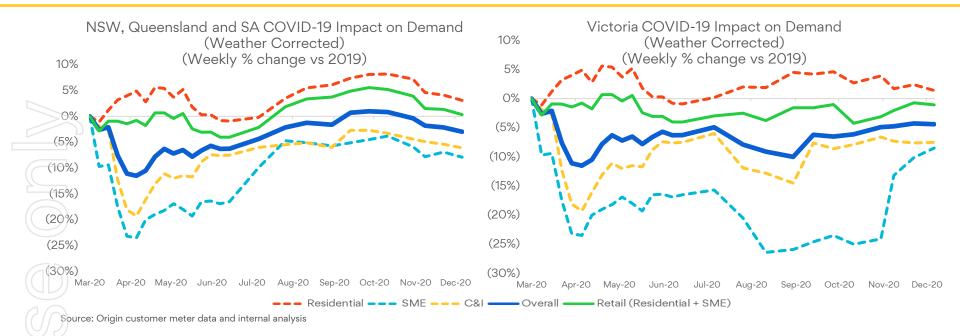


- Average NEM spot electricity price for Dec-20 quarter was \$43.8/MWh, a significant decrease from \$70.5/MWh in the Dec-19 quarter and in line with the Sep-20 quarter:
- Decline from Dec-19 due to lower demand as a result of COVID-19, milder weather, lower fuel costs for gas and coal generation and increased renewable penetration
- Average domestic spot gas price for Dec-20 quarter was \$5.95/GJ, compared to \$7.51/GJ in the Dec-19 quarter and \$4.53/GJ in the Sep-20 quarter:
  - Decrease from Dec-19 driven by reduced demand as a result of COVID-19 and milder weather
  - Increase from Sep-20 driven by linkage to higher Asian LNG prices offsetting impacts of COVID-19 and milder weather



# COVID-19 impacts on state electricity demand





- Weather corrected demand across all NEM states (ex Victoria), is 3% lower than pre-COVID levels having significantly recovered from a low of 10% in Apr-20. Retail volumes remain slightly above pre-COVID levels, buoyed by residential demand.
- Weather corrected demand in Victoria remains below pre-COVID levels driven by lower C&I demand. Retail demand remains at pre-COVID levels with SME demand recovering considerably during the quarter.



# Energy Markets - Electricity sales





- Retail volumes down 5% on Dec-19 quarter due to
  - milder weather from La Niña conditions (-0.1 TWh);
  - lower usage from solar and energy efficiency (-0.1 TWh);
  - lower customer numbers relating to large SME tenders (-0.1 TWh);
  - net increase due to COVID-19 (+0.1 TWh) with higher residential demand and lower SME demand
- Business volumes down 3% on Dec-19 quarter due to COVID-19 impacts (-0.2 TWh), partly offset by new contracts (+0.1 TWh)

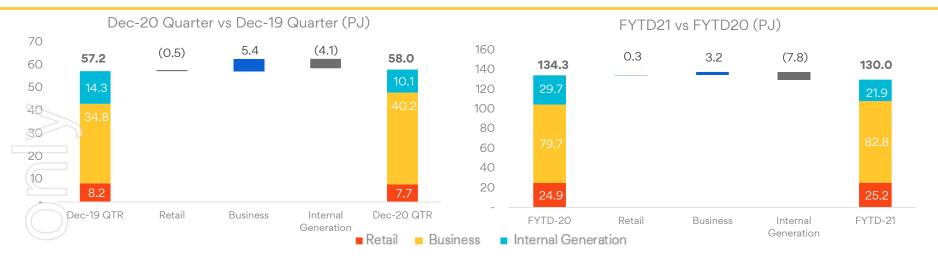
- Retail volumes up 1% on FYTD-20 due to
  - increase from COVID-19 (+0.3 TWh) driven by residential;
  - lower usage from solar and energy efficiency (-0.1 TWh);
  - lower SME customer numbers (-0.1 TWh);
  - no material weather impact: cooler weather in Sep-20 quarter offset by milder summer (La Niña) in Dec-20
  - La Niña conditions are forecast to persist during Q3 FY2021
- Business volumes down 5% on FYTD-20 due to COVID-19 impacts, partly offset by new contract wins





# Energy Markets - Natural gas sales





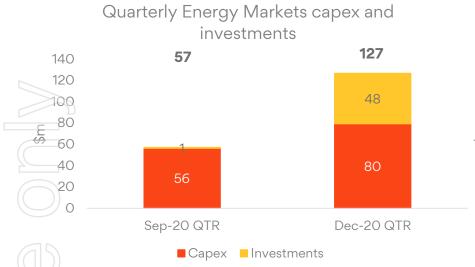
- Retail volumes down 6% on Dec-19 quarter with lower SME demand due to COVID-19 (-0.3 PJ) and milder weather in Victoria (-0.3 PJ), offset by higher customer numbers (0.1 PJ)
  - Business volumes up 16% on Dec-19 as impacts of COVID-19 were more than offset by short term wholesale contracts
- Gas to generation down 29% on Dec-19 quarter due to lower pool prices, lower demand as well as elevated gas generation in the Dec-19 quarter to cover an outage at Eraring

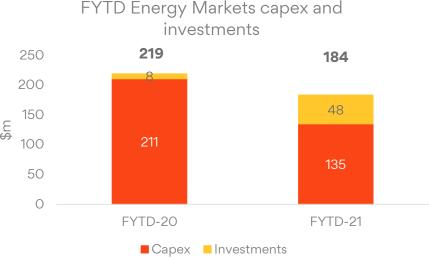
- Retail volumes up 1% due to higher customer numbers (0.4 PJ) with a cooler winter being offset by milder weather in Dec-20 quarter (-0.1 PJ)
- Business volumes up 4% as COVID-19 impacts were more than offset by short term wholesale contracts
- Gas to generation down 26% due to lower pool prices, lower demand as well as elevated gas generation in the Dec-19 quarter to cover an outage at Eraring



# Energy Markets capital expenditure







Capex spend in Dec-20 quarter included generation maintenance, spend in preparation for the move to 5 minute settlement of pool prices, and \$20 million to Octopus Energy relating to licensing the Kraken platform

Dec-20 investments include payments relating to the 20% equity interest in Octopus Energy (\$36 million) and deferred consideration for OC Energy (\$11 million)

 As expected, capex is lower than the prior year primarily due to less generation spend, with the prior period including capex relating to a major outage at Eraring and Mortlake unit repairs





# Integrated Gas - APLNG 100%



APLNG	Unit	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	% Change	FYTD-21	FYTD-20	% Change
Total production	PJ	182.3	171.3	6%	180.2	1%	353.6	357.5	(1%)
Total sales	PJ	171.9	153.0	12%	174.4	(1%)	324.8	342.9	(5%)
LNG									
Production	kt	2,341.4	2,002.2	17%	2,420.8	(3%)	4,343.6	4,630.7	(6%)
Sales	kt	2,394.7	2,008.3	19%	2,431.4	(2%)	4,403.0	4,596.2	(4%)
Commodity Revenue	\$m	889.0	859.5	3%	1,751.9	(49%)	1,748.5	3,356.2	(48%)
Average realised price	US\$/mmbtu	5.20	5.81	(10%)	9.38	(45%)	5.47	9.52	(43%)
Domestic Gas									
Sales	PJ	39.2	41.7	(6%)	39.7	(1%)	80.9	88.3	(8%)
Commodity Revenue	\$m	172.3	137.5	25%	158.8	9%	309.8	389.9	(21%)
Average realised price	\$/GJ	4.40	3.30	33%	4.00	10%	3.83	4.42	(13%)
APLNG capex <sup>1</sup>									
E&A	\$m	8	12	(33%)	29	(72%)	20	47	(57%)
Sustain and Other	\$m	87	156	(44%)	173	(50%)	243	399	(39%)



1) APLNG capex is reported on an accrual basis.

# APLNG sources of gas - APLNG 100%



Production volumes	Units	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	FYTD-21	FYTD-20
Operated							
Spring Gully	PJ	25.6	25.0	2%	26.3	50.6	52.4
Peat	PJ	0.8	0.9	(11%)	0.7	1.6	1.5
Talinga	PJ	19.4	17.4	11%	19.4	36.9	38.8
Orana	PJ	17.2	13.5	27%	17.9	30.7	35.0
Condabri	PJ	31.7	30.5	4%	33	62.2	66.1
Combabula/Reedy Creek	PJ	45.4	43.7	4%	40.9	89.1	81.1
Total operated production	PJ	140.1	131.1	7%	138.3	271.2	275.0
Non-operated							
Fairview (GLNG)	PJ	8.0	8.2	(2%)	8.9	16.2	17.7
Arcadia (GLNG)	PJ	1.0	0.7	43%	0.3	1.7	0.4
Angry Jungle (GLNG)	PJ	1.0	0.9	11%	0	1.8	0.1
Anya (QGC)	PJ	0.4	0.3	33%	0.4	0.7	0.9
Kenya East (QGC)	PJ	14.1	14.0	1%	15.4	28.0	30.1
Kenya (QGC)	PJ	16.7	15.1	11%	16.1	31.8	31.5
Bellevue (QGC)	PJ	1.1	1.0	10%	0.9	2.1	1.8
Total non-operated production	PJ	42.2	40.3	5%	42.0	82.4	82.6
Total upstream production	PJ	182.3	171.3	6%	180.2	353.6	357.5
Natural gas purchases	PJ	1.0	0.7	43%	4.4	1.7	10.9
Changes in Upstream gas inventory/other	PJ	(3.7)	(10.5)	(65%)	0.2	(14.2)	(2.6)
Total sources of natural gas	PJ	179.5	161.5	11%	184.8	341.0	365.7



# Operated drilling & production



9

39

36

103

21

43

#### **APLNG Operated Production Wells**

				Developme	ent Wells
		Avg daily production (APLNG share)		Wells drilled	Wells commissioned
	Spring Gully	278 TJ/d	Dec-20 QTR	-	-
Bowen	Spring Gully	2/6 IJ/Q	FYTD-21	-	5
bowen	Peat	9 TJ/d	Dec-20 QTR	-	-
	reat	9 I J/a	FYTD-21	-	-
	Talinga	211 TJ/d	Dec-20 QTR	8	1
	Talliga	211 1J/Q	FYTD-21	9	3
	Orana	187 TJ/d	Dec-20 QTR	1	20
Surat	Orana	187 IJ/Q	FYTD-21	4	46
Sulat	Condabri	345 TJ/d	Dec-20 QTR	12	6
	Condabii	343 IJ/Q	FYTD-21	30	10

493 TJ/d

1,523 TJ/d

Dec-20 QTR

Dec-20 QTR

FYTD-21

FYTD-21



Combabula /

Reedy Creek

**TOTAL** 

# APLNG uses of gas - APLNG 100%



Uses of gas	Units	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	FYTD-21	FYTD-20
LNG feed gas	PJ	140.3	119.7	17%	145.1	260.0	277.4
Domestic sales	PJ	39.2	41.7	(6%)	39.7	80.9	88.3
Total uses of natural gas	PJ	179.5	161.5	11%	184.8	341.0	365.7

LNG	Units	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	FYTD-21	FYTD-20
LNG Production	kt	2,341.4	2,002.2	17%	2,420.8	4,343.6	4,630.7
Changes in LNG inventory	kt	53.4	6.1	775%	10.6	59.5	(34.5)
Total LNG sales volume	kt	2,394.7	2,008.3	19%	2,431.4	4,403.0	4,596.2
LNG cargos sold	#	35	29	21%	35	64	66

APLNG commodity revenue	Units	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	FYTD-21	FYTD-20
LNG	\$m	889.0	859.5	3%	1,751.9	1,748.5	3,356.2
Domestic Gas	\$m	172.3	137.5	25%	158.8	309.8	389.9
Total Commodity Revenue	\$m	1,061.3	997.0	6%	1,910.7	2,058.3	3,746.1

Sales – APLNG average realised prices	Units	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	FYTD-21	FYTD-20
LNG	\$/GJ	6.70	7.73	(13%)	13.01	7.17	13.18
Domestic Gas	\$/GJ	4.40	3.30	33%	4.00	3.83	4.42
Average Commodity price	\$/GJ	6.17	6.52	(5%)	10.95	6.34	10.92



## Integrated Gas - Origin share



APLNG (ORG share)	Unit	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	% Change	FYTD-21	FYTD-20	% Change
Total production (ORG share)	PJ	68.3	64.2	6%	67.6	1%	132.6	134.1	(1%)
Total sales (ORG share)	PJ	64.5	57.4	12%	65.4	(1%)	121.8	128.6	(5%)
LNG (ORG share)									
Production	kt	878.0	750.8	17%	907.8	(3%)	1,628.8	1,736.5	(6%)
Sales	kt	898.0	753.1	19%	911.8	(2%)	1,651.1	1,723.6	(4%)
Commodity Revenue	\$m	333.4	322.3	3%	657.0	(49%)	655.7	1,258.6	(48%)
Average realised price	US\$/mmbtu	5.20	5.81	(10%)	9.38	(45%)	5.47	9.52	(43%)
Domestic Gas (ORG share)									
Sales	PJ	14.7	15.6	(6%)	14.9	(1%)	30.3	33.1	(8%)
Commodity Revenue	\$m	64.6	51.6	25%	59.5	9%	116.2	146.2	(21%)
Average realised price	\$/GJ	4.40	3.30	33%	4.00	10%	3.83	4.42	(13%)

Integrated Gas Other	Unit	Dec-20 QTR	Sep-20 QTR	% Change	Dec-19 QTR	% Change	FYTD-21	FYTD-20	% Change
Origin only capex									
Capex	\$m	4	3	33%	2	100%	7	7	0%
E&A	\$m	11	11	0%	25	(56%)	22	35	(37%)
Origin oil hedging and LNG trading									
Hedge premium expense	\$m	(3.1)	0.0	N/A	(13.7)	(77%)	(3.1)	(19.8)	(84%)
Gain / (Loss) on oil hedging	\$m	55.8	43.2	29%	2.0	2690%	99.0	0.8	12275%
Gain / (Loss) on LNG trading	\$m	(7.0)	(9.9)	(29%)	(52.2)	(87%)	(16.9)	(66.8)	(75%)
Total oil hedging and LNG trading gain/(loss)	\$m	45.7	33.3	37%	(63.9)	(172%)	79.0	(85.8)	(192%)

Hedging/trading gain increased quarter-on-quarter driven by lower oil price, partially offset by a current quarter loss on LNG trading positions and oil hedge premium.



# **Energy Markets**



	Unit	Dec-20	Sep-20	% Change	Dec-19	% Change	FYTD-21	FYTD-20	% Change
Sales volumes									
Electricity - Retail	TWh	3.6	4.6	(23%)	3.7	(5%)	8.2	8.1	1%
Electricity - Business	TWh	4.4	4.1	7%	4.5	(3%)	8.5	8.9	(5%)
Natural gas – Retail	PJ	7.7	17.5	(56%)	8.2	(6%)	25.2	24.9	1%
Natural gas – Business	PJ	40.2	42.7	(6%)	34.8	16%	82.8	79.7	4%
Natural gas - Internal generation	PJ	10.1	11.8	(14%)	14.3	(29%)	21.9	29.7	(26%)
Capex	\$m	80	56	43%	132	(40%)	135	211	(36%)
Investments	\$m	48	1	5271%	5	823%	48	8	493%

Electricity sales volume (TWh)

	Dec-20 QTR		Dec-19 QTR		FYTD-21		FYTD-20	
Volumes sold (TWh)	Retail	Business	Retail	Business	Retail	Business	Retail	Business
New South Wales	1.60	2.13	1.76	2.22	3.99	4.18	3.99	4.43
Queensland	1.05	1.01	1.02	0.96	2.11	1.84	1.97	1.77
Victoria	0.62	0.82	0.64	0.87	1.42	1.60	1.48	1.77
South Australia	0.29	0.43	0.31	0.47	0.64	0.86	0.66	0.91
Total volumes sold	3.55	4.38	3.73	4.52	8.16	8.47	8.10	8.88

Victoria	0.62	0.82	0.64	0.87	1.42	1.60	1.48	1.77	
South Australia	0.29	0.43	0.31	0.47	0.64	0.86	0.66	0.91	
Total volumes sold	3.55	4.38	3.73	4.52	8.16	8.47	8.10	8.88	
Natural Gas sales volume (PJ)									
	Dec-20 QTR		Dec-19 QTR		FYTD-21		FYTD-20		
Volumes sold (PJ)	Retail	Business	Retail	Business	Retail	Business	Retail	Business	
New South Wales	2.11	6.20	2.03	4.21	6.34	13.87	6.04	9.26	
Queensland	0.70	20.71	0.71	15.83	1.76	35.25	1.67	33.15	
Victoria	3.83	11.13	4.38	12.05	13.89	28.95	14.04	31.44	
South Australia	1.04	2.13	1.10	2.66	3.24	4.78	3.18	5.84	
External volumes sold	7.69	40.17	8.22	34.76	25.24	82.85	24.93	79.69	
Internal sales (generation)	1	10.14		14.26		21.92		29.67	
Total volumes sold	5	58.00		57.24		130.00		134.29	

#### Conversion factors and abbreviations



#### **Conversion factors**

LNG0.0554 PJ/ktonnesLNG1.0551 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 EPT Extended Production Test

ERIC Eurombah Reedy Creek Interconnect

FID final investment decision gigajoule = 10<sup>9</sup> joules

GLNG Gladstone Liquified Natural Gas JCC Japan Customs-cleared Crude

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 minbtu million British thermal units mmscf million standard cubic feet mtpa million tonnes per annum

MWh Megawatt hour = 10<sup>3</sup> kilowatt hours

pa per annum

PJ petajoule = 10<sup>15</sup> joules

PUe 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

tonnes

TJ terajoule = 10<sup>12</sup> joules

TJ/d terajoules per day

TWh Terrawatt hour = 10<sup>9</sup> kilowatt hours

TD year to date

