

Beijing Winter Olympics to drive demand for gas

China has widened its winter air pollution campaign to curb emissions ahead of the Winter Olympics to be held in February 2022.

- **Recap:** The campaign was initially started in 2017 and encompasses 28 key regions including Beijing. From October to March, these regions will be monitored for air quality and alerts will be issued to those that fail to improve / regulate air quality. Certain activities may be restricted including steel production while households will be encouraged to convert from coal to gas or electricity heating. The target for coal-to-gas switching this year is 3.67m households.
- **Campaign widened:** The new draft plan will widen the campaign to 64 regions including areas in northern Hebei, northern Shanxi, eastern and southern Shandong and some cities in the southern Henan province. This is likely in a bid to reduce emissions level and improve air quality ahead of the Beijing Winter Olympics.
- **Increased demand for gas:** We believe the campaign will lead to significant demand growth for natural gas. However, because China does not have sufficient natural gas locally, the country will likely have to import significantly more LNG to meet its energy needs. At the same time, because of growing energy demand, we do not believe demand for coal will decline but rather move sideways. We expect the supply tightness to keep coal price elevated through the end of winter.

En Plus: Construction to resume at Mozambique LNG

Security has been restored in the Cabo Delgado region and Mozambican and Rwandan governments both urge project developers to resume construction.

- **Recap:** Mozambique LNG is a 13.1m tpa LNG project being developed by a consortium of E&P companies led by TotalEnergies. Security situation in the Cabo Delgado regions of Mozambique deteriorated in early 2021. This forced TotalEnergies to halt construction of Mozambique LNG in March 2021 and declared force majeure the following month. At the time, Total's CEO said the project would be delayed by at least a year from the original 2024 start-up.
- **2025 or 2026 start up:** With the help of Rwandan military forces, security has been restored. Now both the Mozambique and Rwandan governments have called on project developers to resume construction. Still, construction may be able to resume only in 12-18 months. Assuming this is the case, then the project may be able to start production in 2025-26F according to African Development Bank.
- **Positive for PTTEP:** PTTEP holds an 8.5% working interest in the Mozambique LNG project. We believe progress on this major project will help increase PTTEP's production at a time when there is little growth from other projects in the pipeline.

Ex 4: Prices And Spreads

(US\$/bbl)	3Q20	4Q20	1Q21	2Q21	QTD	Jun-21	Jul-21	Aug-21	MTD	Last
Oil prices										
Dated Brent	42.70	44.53	60.84	68.63	72.29	73.07	74.22	70.02	73.08	74.86
Dubai	42.47	43.87	59.70	66.43	70.84	70.96	72.79	68.91	70.96	72.32
WTI	40.90	42.74	58.07	66.10	70.04	71.35	72.43	67.71	70.12	71.97
Crack spreads over Dubai										
Gasoline	4.87	5.20	7.49	10.67	12.27	9.19	11.71	12.72	12.44	13.56
Jet fuel	0.68	3.79	4.25	5.36	5.30	5.57	4.44	5.16	7.08	7.77
Diesel	5.63	4.53	5.37	6.09	7.01	6.33	6.54	7.21	7.45	9.25
High-sulfur fuel oil	(2.47)	(1.02)	(4.28)	(6.80)	(5.84)	(8.37)	(8.13)	(5.62)	(2.24)	(1.37)
Refining margins										
FCC / Dubai	(0.13)	1.07	1.21	0.95	0.77	0.42	0.56	0.83	1.01	0.87
Hydrocracking / Dubai	0.03	0.52	0.71	0.77	0.96	0.64	0.74	0.92	1.42	1.35
FCC / Espo	(0.66)	(0.33)	1.47	1.55	1.16	0.82	0.96	1.22	1.40	1.27
FCC / Arab Light	(0.90)	1.45	0.56	(0.51)	(0.72)	(1.07)	(0.93)	(0.66)	(0.48)	(0.62)
Hydrocracking / Murban	0.87	1.17	2.29	2.81	3.26	2.93	3.03	3.22	3.71	3.64
(US\$/tonne)										
Aromatics spreads										
PX-naphtha	128	136	185	232	235	214	230	256	203	197
BZ-naphtha	35	119	191	367	354	348	372	333	351	367
Olefin spreads										
HDPE-naphtha	526	608	583	576	463	425	432	499	471	467
LDPE-naphtha	567	780	959	936	816	743	754	864	876	877
PP-naphtha	535	695	771	709	563	570	552	594	531	527
Ethylene-naphtha	366	463	416	406	293	262	284	279	343	357
Propylene-naphtha	412	499	461	436	298	335	281	323	293	292
Henry Hub Gas (US\$/mmbtu)	2.12	2.76	2.73	2.97	4.16	3.27	3.82	4.03	4.98	5.11
Coal (Newcastle) (US\$/tonne)	51.60	66.20	87.47	106.49	161.30	125.31	146.01	167.19	177.23	177.50

Source: Bloomberg

Ex 5: Valuation

	Rating	Current price	Target price	Upside/Downside	Market cap	Norm EPS growth	— Norm PE —	EV/EBITDA	— Yield —				
		(Bt)	(Bt)	(%)	(US\$ m)	2021F	2022F	2021F	2022F	2021F	2022F	(%)	(%)
						(%)	(%)	(x)	(x)	(x)	(x)	(%)	(%)
BANPU	BUY	12.80	16.00	25.0	1,956	na	14.2	8.9	7.8	6.0	5.7	4.2	5.1
BCP	SELL	26.50	21.00	(20.8)	1,099	na	na	na	24.3	8.8	6.8	0.0	2.3
ESSO	SELL	8.15	6.90	(15.3)	849	na	na	na	149.4	37.7	21.4	0.0	0.3
IRPC	BUY	4.02	5.10	26.9	2,473	na	9.6	14.4	13.1	9.0	8.2	4.2	4.6
IVL	BUY	44.25	52.00	17.5	7,480	169.1	(0.9)	14.4	14.5	8.5	9.2	2.4	2.4
PTG	BUY	17.90	22.00	22.9	900	(3.6)	11.8	16.7	14.9	7.6	7.1	3.0	3.3
PTT	BUY	39.00	50.00	28.2	33,538	182.0	5.2	10.4	9.9	4.6	4.2	4.8	5.1
PTTEP	BUY	113.00	140.00	23.9	13,506	68.1	15.8	12.5	10.8	3.9	3.5	4.8	5.6
PTTGC	BUY	60.50	86.00	42.1	8,213	219.4	(1.2)	11.2	11.3	6.8	6.6	5.4	5.3
SPRC	SELL	9.15	7.20	(21.3)	1,194	na	na	na	118.8	21.5	15.8	0.0	0.3
SUSCO	BUY	3.28	4.80	46.3	109	3.0	23.4	15.4	12.4	6.5	5.3	3.3	4.0
TOP	SELL	50.50	48.00	(5.0)	3,102	na	6.1	25.6	24.1	17.2	18.0	1.8	1.9

Sources: Company data, Thanachart estimates