SAF GROUP

Energy Tidbits

Vitol Reminds China Fuel Sales Solid But Unseasonably High Oil Stocks Plus Low Refiner Margins Point to Less Oil Imports

Produced by: Dan Tsubouchi

November 5, 2023

Dan Tsubouchi
Chief Market Strategist
dtsubouchi@safgroup.ca

Ryan Dunfield
CEO
rdunfield@safgroup.ca

Aaron Bunting
COO, CFO
abunting@safgroup.ca

Ryan Haughn
Managing Director
rhaughn@safgroup.ca

Table 1. Summary of natural gas supply and disposition in the United States, 2018-2023

billion cubic feet

Year and month	Gross withdrawals	Marketed production	NGPL production[a]	Dry gas production[b]	Supplemental gaseous fuels[c]	Net imports	Net storage withdrawals[d]	Balancing item[e]	Consumption[f]
2018 total	**37,326**	**33,009**	**2,235**	**30,774**	**69**	**-719**	**314**	**-300**	**30,139**
2019 total	**40,780**	**36,447**	**2,548**	**33,899**	**61**	**-1,916**	**-503**	**-408**	**31,132**
2020 total	**40,730**	**36,521**	**2,710**	**33,811**	**63**	**-2,734**	**-180**	**-357**	**30,603**
2021									
January	3,504	3,106	234	2,872	5	-279	719	18	3,335
February	2,939	2,597	195	2,402	5	-152	795	46	3,096
March	3,510	3,136	236	2,900	6	-357	64	27	2,640
April	3,428	3,059	230	2,829	5	-356	-180	-27	2,272
May	3,525	3,158	238	2,921	6	-373	-423	-13	2,116
June	3,390	3,045	229	2,816	5	-331	-254	6	2,242
July	3,509	3,177	239	2,938	6	-338	-175	-12	2,418
August	3,535	3,186	240	2,946	6	-343	-164	-9	2,436
September	3,441	3,104	233	2,871	5	-315	-398	-25	2,138
October	3,613	3,258	245	3,013	6	-317	-368	-75	2,259
November	3,564	3,189	240	2,949	6	-315	137	-92	2,685
December	3,720	3,323	250	3,073	6	-368	330	-33	3,008
Total	**41,677**	**37,338**	**2,809**	**34,529**	**66**	**-3,845**	**83**	**-188**	**30,646**
2022									
January	3,628	3,235	252	2,983	6	-315	1,013	-95	3,593
February	3,266	2,914	227	2,687	5	-288	673	-17	3,059
March	3,663	3,282	256	3,026	6	-380	171	-43	2,781
April	3,568	3,199	250	2,950	6	-342	-220	-33	2,360
May	3,695	3,332	260	3,072	6	-386	-412	-39	2,241
June	3,565	3,232	252	2,980	6	-325	-332	-13	2,317
July	3,736	3,375	263	3,112	6	-303	-187	-46	2,583
August	3,730	3,392	265	3,128	6	-322	-213	-39	2,559
September	3,669	3,330	260	3,071	6	-293	-446	-50	2,288
October	3,814	3,438	268	3,170	6	-315	-432	-66	2,364
November	3,712	3,327	259	3,067	6	-308	78	-77	2,767
December	3,755	3,370	263	3,107	6	-304	588	-21	3,376
Total	**43,802**	**39,428**	**3,075**	**36,353**	**73**	**-3,880**	**281**	**-539**	**32,288**
2023									
January	[E]3,820	[E]3,429	[R]269	[RE]3,160	7	-333	455	12	[R]3,302
February	[E]3,456	[E]3,103	[R]247	[RE]2,856	6	-330	399	[R]17	[R]2,947
March	[E]3,858	[E]3,475	[R]286	[RE]3,189	6	-401	224	[R]-9	3,009
April	[E]3,729	[E]3,362	[R]282	[RE]3,080	5	-400	-268	[R]5	[R]2,421
May	[E]3,869	[E]3,500	[R]289	[RE]3,211	6	-422	-452	[R]-26	[R]2,316
June	[RE]3,720	[RE]3,375	[R]275	[RE]3,100	4	-375	[R]-343	[R]-30	2,356
July	[RE]3,827	[RE]3,495	[R]290	[RE]3,206	6	[R]-377	-133	[R]-36	2,665
August	[E]3,844	[E]3,529	293	[E]3,236	5	-388	-134	-46	2,673
2023 8-month YTD	**[E]30,123**	**[E]27,268**	**2,231**	**[E]25,037**	**46**	**-3,026**	**-252**	**-114**	**21,691**
2022 8-month YTD	**28,852**	**25,963**	**2,025**	**23,938**	**48**	**-2,660**	**492**	**-324**	**21,494**
2021 8-month YTD	**27,339**	**24,463**	**1,840**	**22,623**	**43**	**-2,530**	**381**	**37**	**20,555**

[a] We derive monthly natural gas plant liquid (NGPL) production, gaseous equivalent, from sample data reported by gas processing plants on Form EIA-816, *Monthly Natural Gas Liquids Report*, and Form EIA-64A, *Annual Report of the Origin of Natural Gas Liquids Production*.

[b] Equal to marketed production minus NGPL production.

[c] We only collect supplemental gaseous fuels data on an annual basis except for the Dakota Gasification Co. coal gasification facility, which provides data each month. We calculate the ratio of annual supplemental fuels (excluding Dakota Gasification Co.) to the sum of dry gas production, net imports, and net withdrawals from storage. We apply this ratio to the monthly sum of these three elements. We add the Dakota Gasification Co. monthly value to the result to produce the monthly supplemental fuels estimate.

[d] Monthly and annual data for 2018 through 2022 include underground storage and liquefied natural gas storage. Data for January 2023 forward include underground storage only. Appendix A, Explanatory Note 5, contains a discussion of computation procedures.

[e] Represents quantities lost and imbalances in data due to differences among data sources. Net imports and balancing item excludes net intransit deliveries. These net intransit deliveries were (in billion cubic feet): 91 for 2022; 184 for 2021; 207 for 2020; -8 for 2019; and -12 for 2018. Appendix A, Explanatory Note 7, contains a full discussion of balancing item calculations.

[f] Consists of pipeline fuel use, lease and plant fuel use, vehicle fuel, and deliveries to consuming sectors as shown in Table 2.

[R] Revised data.

[E] Estimated data.

[RE] Revised estimated data.

Source: 2018-2022: U.S. Energy Information Administration (EIA), *Natural Gas Annual 2022*. January 2023 through current month: Form EIA-914, *Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report*; Form EIA-857, *Monthly Report of Natural Gas Purchases and Deliveries to Consumers*; Form EIA-191, *Monthly Underground Gas Storage Report*; EIA computations and estimates; and Office of Fossil Energy and Carbon Management, *Natural Gas Imports and Exports*. Table 7 includes detailed source notes for Marketed Production. Appendix A, Notes 3 and 4, includes discussion of computation and estimation procedures and revision policies.

Note: Data for 2018 through 2022 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 states and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Table 5. U.S. natural gas exports, 2021-2023

volumes in million cubic feet; prices in dollars per thousand cubic feet

	2023 8-month YTD	2022 8-month YTD	2021 8-month YTD					2023
				August	July	June	May	April
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	681,228	636,068	608,933	68,390	76,567	75,320	77,984	75,674
Mexico	1,480,665	1,418,077	1,458,834	212,501	207,446	203,526	193,034	169,179
Total pipeline exports	**2,161,893**	**2,054,146**	**2,067,766**	**280,892**	**R284,014**	**278,846**	**271,018**	**244,853**
LNG								
Exports								
By vessel								
Antigua and Barbuda	24	15	0	5	4	3	3	3
Argentina	76,921	66,939	79,422	0	11,162	22,663	26,930	11,536
Bahamas	348	329	337	47	47	45	45	43
Bangladesh	17,650	12,663	34,458	7,095	0	3,624	3,561	0
Barbados	0	92	178	0	0	0	0	0
Belgium	37,985	60,616	5,584	3,363	0	6,953	3,809	4,844
Brazil	21,043	68,559	193,702	3,287	0	8,628	4,196	3,598
Chile	31,217	26,766	101,694	3,065	R7,144	4,011	6,419	0
China	109,122	39,486	295,240	14,252	38,997	R20,261	6,593	3,426
Colombia	5,996	2,004	1,811	3,149	0	0	2,847	0
Croatia	31,852	53,966	23,600	3,023	10,121	0	2,932	3,163
Dominican Republic	46,378	37,514	38,726	10,055	R6,076	7,443	7,871	6,901
Egypt	0	0	0	0	0	0	0	0
El Salvador	1	0	0	0	1	0	0	0
Finland	25,704	0	0	6,630	3,666	1,622	6,935	0
France	307,521	382,531	110,957	34,332	20,589	45,569	51,658	53,211
Germany	131,807	0	0	16,860	17,245	15,769	16,002	18,546
Greece	29,171	61,316	24,459	4,700	0	2,924	4,498	3,905
Haiti	73	98	98	9	8	6	12	11
India	101,672	80,708	143,719	13,713	20,494	14,488	7,140	14,585
Indonesia	2,669	1,684	0	766	R1,097	0	0	0
Israel	0	0	6,051	0	0	0	0	0
Italy	126,657	97,482	34,210	21,519	13,923	13,959	18,542	17,378
Jamaica	2,577	848	19,659	3	1,443	3	289	31
Japan	193,157	146,599	248,747	31,302	R40,356	R28,031	27,923	13,687
Jordan	3,282	0	0	0	3,282	0	0	0
Kuwait	28,549	46,681	17,950	3,289	7,081	10,670	3,802	3,707
Lithuania	34,781	59,610	27,637	7,005	3,375	3,629	7,048	3,412
Malaysia	0	0	0	0	0	0	0	0
Malta	2,592	2,345	2,928	0	0	0	0	0
Mexico	8,224	3,292	14,112	0	1,954	0	0	0
Netherlands	414,304	247,164	114,574	57,445	53,296	45,866	60,691	60,234
Nicaragua	0	0	1	0	0	0	0	0
Pakistan	0	3,074	30,548	0	0	0	0	0
Panama	12,510	9,676	7,526	0	3,295	0	3,289	0
Poland	85,939	86,054	38,824	10,550	3,635	18,046	17,422	7,165
Portugal	53,447	43,014	36,700	6,660	9,845	3,194	10,424	4,237
Singapore	13,393	16,352	17,190	3,384	0	10,009	0	0
South Korea	162,116	195,383	319,284	34,932	R16,462	17,044	10,958	24,734
Spain	176,569	318,732	92,750	20,023	34,106	12,274	12,266	13,680
Taiwan	74,429	75,150	70,999	14,117	13,090	6,848	10,262	9,774
Thailand	40,540	22,315	14,548	14,793	7,463	4,242	0	4,225
Turkiye	75,344	126,866	59,537	0	0	0	0	13,908
United Arab Emirates	0	0	0	0	0	0	0	0
United Kingdom	317,098	220,930	97,682	3,655	0	0	32,374	75,836
By truck								
Canada	54	48	74	8	8	17	7	7
Mexico	497	969	610	19	25	34	26	58
Re-exports								
By vessel								
Argentina	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0
South Korea	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG exports	**2,803,212**	**2,617,873**	**2,326,126**	**353,059**	**R349,292**	**327,872**	**366,774**	**375,843**
CNG								
Canada	1	1	211	0	0	0	0	0
Total CNG exports	**1**	**1**	**211**	**0**	**0**	**0**	**0**	**0**
Total exports	**4,965,105**	**4,672,020**	**4,394,103**	**633,950**	**R633,306**	**R606,719**	**637,792**	**620,697**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2021-2023

volumes in million cubic feet; prices in dollars per thousand cubic feet – continued

	2023			2022				
	March	February	January	Total	December	November	October	September
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	106,178	95,691	105,422	959,630	98,718	90,179	72,738	61,926
Mexico	177,150	152,318	165,511	2,078,627	158,638	160,986	171,766	169,159
Total pipeline exports	**283,328**	**248,009**	**270,933**	**3,038,257**	**257,355**	**251,165**	**244,505**	**231,086**
LNG								
Exports								
By vessel								
Antigua and Barbuda	2	2	4	22	1	2	2	3
Argentina	2,343	2,287	0	66,939	0	0	0	0
Bahamas	53	27	42	489	42	35	40	43
Bangladesh	0	0	3,369	12,663	0	0	0	0
Barbados	0	0	0	93	0	1	0	0
Belgium	8,053	7,322	3,640	80,245	3,274	0	7,190	9,165
Brazil	1,334	0	0	71,998	0	0	3,439	0
Chile	7,271	0	3,307	30,131	0	0	0	3,365
China	5,132	2,565	17,896	96,659	6,992	17,308	22,598	10,275
Colombia	0	0	0	5,703	0	0	3,699	0
Croatia	3,694	6,006	2,913	77,286	6,204	5,122	2,922	9,073
Dominican Republic	876	3,514	3,643	50,824	6,644	0	3,469	3,196
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0
Finland	6,850	0	0	329	329	0	0	0
France	28,581	39,457	34,124	571,399	38,311	50,655	41,959	57,943
Germany	24,841	8,229	14,314	7,113	7,112	1	0	0
Greece	3,156	6,781	3,207	69,031	2,869	421	4,424	0
Haiti	8	11	8	115	9	0	0	8
India	10,230	14,064	6,956	122,518	14,139	10,138	7,005	10,528
Indonesia	0	0	805	6,579	3,256	505	625	509
Israel	0	0	0	0	0	0	0	0
Italy	13,699	17,555	10,082	116,034	6,992	3,205	0	8,355
Jamaica	540	161	107	1,516	147	137	144	240
Japan	20,102	14,058	17,696	209,220	20,535	24,396	10,684	7,005
Jordan	0	0	0	0	0	0	0	0
Kuwait	0	0	0	57,018	0	0	3,299	7,038
Lithuania	3,599	0	6,713	77,212	3,281	3,708	7,072	3,541
Malaysia	0	0	0	0	0	0	0	0
Malta	0	0	2,592	5,273	0	2,928	0	0
Mexico	3,051	0	3,219	3,832	539	0	0	0
Netherlands	61,017	39,301	36,453	378,329	39,893	20,645	39,703	30,924
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	0	0	3,074	0	0	0	0
Panama	3,209	0	2,718	13,759	249	3,833	0	0
Poland	7,236	10,347	11,538	127,404	13,885	3,453	7,095	16,917
Portugal	6,133	6,138	6,816	69,583	10,025	3,732	7,005	5,806
Singapore	0	0	0	22,980	0	0	6,628	0
South Korea	10,807	22,672	24,507	292,732	24,700	14,069	38,844	19,736
Spain	38,096	32,138	13,987	426,657	33,847	26,445	26,369	21,263
Taiwan	10,311	6,557	3,471	106,738	9,203	3,592	9,041	9,753
Thailand	4,249	1,829	3,738	25,988	0	0	0	3,673
Turkiye	11,866	13,444	36,126	192,067	17,979	31,430	10,333	5,458
United Arab Emirates	0	0	0	0	0	0	0	0
United Kingdom	70,499	71,702	63,032	464,462	69,332	76,693	46,040	51,467
By truck								
Canada	7	0	0	76	8	0	19	0
Mexico	96	106	133	1,552	160	153	175	94
Re-exports								
By vessel								
Argentina	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0
South Korea	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG exports	**366,941**	**326,275**	**337,155**	**3,865,643**	**339,960**	**302,608**	**309,823**	**295,379**
CNG								
Canada	*	*	*	2	0	*	1	*
Total CNG exports	*****	*****	*****	**2**	**0**	*****	**1**	*****
Total exports	**650,270**	**574,284**	**608,088**	**6,903,902**	**597,316**	**553,774**	**554,328**	**526,465**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2021-2023

volumes in million cubic feet; prices in dollars per thousand cubic feet – continued

								2022
	August	July	June	May	April	March	February	January
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	75,220	69,774	70,105	79,214	80,475	105,074	74,630	81,577
Mexico	182,596	189,652	182,995	186,003	176,447	169,885	155,032	175,467
Total pipeline exports	**257,816**	**259,426**	**253,100**	**265,217**	**256,922**	**274,958**	**229,662**	**257,045**
LNG								
Exports								
By vessel								
Antigua and Barbuda	2	2	3	2	3	2	0	2
Argentina	2,202	9,448	25,246	20,111	9,933	0	0	0
Bahamas	53	45	47	42	34	43	31	34
Bangladesh	0	0	0	3,346	0	3,421	5,896	0
Barbados	0	0	0	0	0	34	31	28
Belgium	3,589	0	7,023	3,441	7,341	17,743	7,691	13,786
Brazil	10,542	5,192	3,857	15,303	3,448	2,236	10,660	17,322
Chile	0	6,917	0	9,943	3,530	3,214	0	3,162
China	10,272	784	7,329	0	10,217	7,527	3,357	0
Colombia	606	0	912	0	0	0	0	486
Croatia	7,824	4,600	7,925	8,543	6,763	3,358	5,870	9,084
Dominican Republic	3,357	6,532	5,838	4,964	3,645	6,530	0	6,647
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0
France	33,885	53,443	37,564	47,150	56,343	64,415	39,646	50,084
Germany	0	0	0	0	0	0	0	0
Greece	10,763	12,922	9,633	12,650	1,336	4,116	8,094	1,802
Haiti	11	8	13	9	11	10	16	20
India	10,265	13,902	10,653	7,152	14,223	10,438	7,210	6,866
Indonesia	967	0	0	0	0	0	717	0
Israel	0	0	0	0	0	0	0	0
Italy	15,462	9,914	7,137	21,696	15,519	7,088	13,629	7,037
Jamaica	110	121	48	144	135	92	111	86
Japan	20,156	18,189	21,561	24,024	13,231	17,697	10,214	21,527
Jordan	0	0	0	0	0	0	0	0
Kuwait	6,415	5,382	8,105	14,204	7,298	0	5,277	0
Lithuania	7,579	7,947	6,729	11,237	13,770	5,700	3,131	3,518
Malaysia	0	0	0	0	0	0	0	0
Malta	0	0	0	0	0	0	2,345	0
Mexico	0	0	3,292	0	0	0	0	0
Netherlands	50,020	32,637	34,420	28,902	28,395	24,922	31,591	16,279
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	0	0	0	3,074	0	0	0
Panama	0	0	623	1,192	1,536	0	3,069	3,255
Poland	6,885	17,780	14,282	18,224	13,882	3,831	7,475	3,695
Portugal	3,202	6,412	5,582	3,888	6,632	10,728	3,703	2,868
Singapore	0	6,275	3,352	0	0	6,725	0	0
South Korea	36,033	34,342	25,054	17,538	13,813	19,289	27,489	21,824
Spain	26,140	34,396	29,639	40,337	40,259	59,224	39,359	49,379
Taiwan	8,901	9,353	6,892	15,975	9,541	12,161	6,115	6,211
Thailand	3,607	0	6,920	3,419	0	0	4,880	3,490
Turkiye	0	0	7,542	7,281	6,637	16,629	43,697	45,081
United Arab Emirates	0	0	0	0	0	0	0	0
United Kingdom	21,263	3,797	3,326	10,608	39,775	56,799	25,301	60,060
By truck								
Canada	0	0	8	8	15	0	4	13
Mexico	103	76	105	115	122	144	157	148
Re-exports								
By vessel								
Argentina	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0
South Korea	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG exports	**300,215**	**300,415**	**300,659**	**351,448**	**330,463**	**364,116**	**316,766**	**353,791**
CNG								
Canada	*	1	*	0	0	*	0	0
Total CNG exports	*****	**1**	*****	**0**	**0**	*****	**0**	**0**
Total exports	**558,031**	**559,842**	**553,760**	**616,665**	**587,385**	**639,074**	**546,428**	**610,836**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2021-2023

volumes in million cubic feet; prices in dollars per thousand cubic feet – continued

							2021
	Total	December	November	October	September	August	July	June
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	937,124	108,568	85,136	62,464	72,023	71,586	68,264	69,528
Mexico	2,154,457	166,956	165,449	184,472	178,746	193,710	197,623	198,242
Total pipeline exports	**3,091,580**	**275,524**	**250,585**	**246,936**	**250,769**	**265,296**	**265,887**	**267,770**
LNG								
Exports								
By vessel								
Antigua and Barbuda	8	3	2	0	3	0	0	0
Argentina	83,449	2,077	0	0	1,950	14,363	22,798	19,312
Bahamas	486	36	34	36	43	56	46	48
Bangladesh	37,734	0	0	0	3,276	7,085	0	3,493
Barbados	297	34	27	25	33	27	31	22
Belgium	5,584	0	0	0	0	0	0	0
Brazil	307,714	24,246	10,715	40,769	38,282	34,204	39,637	32,293
Chile	121,881	2,938	2,956	6,364	7,929	16,262	19,913	0
China	453,304	17,050	50,228	42,202	48,584	51,662	42,222	42,319
Colombia	2,247	0	0	0	436	919	0	0
Croatia	36,133	3,117	9,416	0	0	2,980	3,299	2,923
Dominican Republic	53,095	5,969	2,780	5,619	0	5,901	1,806	4,670
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0
France	170,780	33,892	10,021	9,333	6,578	7,111	0	3,683
Germany	0	0	0	0	0	0	0	0
Greece	39,708	5,305	7,629	1,515	799	3,607	6,651	0
Haiti	137	4	8	17	10	24	8	18
India	196,218	3,203	14,807	10,548	23,941	20,592	13,090	16,503
Indonesia	3,269	1,218	456	477	1,118	0	0	0
Israel	8,906	0	0	0	2,855	0	0	0
Italy	34,210	0	0	0	0	3,401	6,826	3,425
Jamaica	25,276	113	715	1,858	2,931	2,907	0	2,927
Japan	354,948	24,297	33,947	37,666	10,290	19,979	24,895	39,783
Jordan	0	0	0	0	0	0	0	0
Kuwait	34,476	0	0	6,193	10,333	3,298	0	7,126
Lithuania	30,919	0	0	0	3,282	1,677	6,469	3,285
Malaysia	0	0	0	0	0	0	0	0
Malta	5,427	0	0	0	2,498	0	0	0
Mexico	15,200	0	0	1,088	0	0	758	0
Netherlands	174,339	23,354	8,829	17,157	10,424	7,347	10,597	3,030
Nicaragua	1	0	0	0	0	0	1	0
Pakistan	45,818	0	2,490	3,138	9,642	3,319	13,428	3,376
Panama	8,436	0	0	911	0	1,390	0	0
Poland	56,320	7,159	7,068	3,270	0	0	6,619	10,635
Portugal	65,865	9,630	5,380	10,459	3,696	6,382	3,296	5,538
Singapore	20,918	0	3,728	0	0	0	3,449	0
South Korea	453,483	38,201	30,787	33,836	31,375	50,101	39,314	55,918
Spain	215,062	32,579	22,821	35,638	31,274	23,068	8,630	7,833
Taiwan	99,350	12,034	3,404	7,123	5,789	6,728	20,653	3,097
Thailand	14,548	0	0	0	0	3,707	0	0
Turkiye	188,849	38,420	47,330	19,385	24,176	0	5,591	0
United Arab Emirates	0	0	0	0	0	0	0	0
United Kingdom	195,046	60,315	30,648	3,302	3,099	0	0	0
By truck								
Canada	128	20	8	8	19	18	16	7
Mexico	1,250	148	160	182	150	147	97	105
Re-exports								
By vessel								
Argentina	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0
South Korea	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG exports	**3,560,818**	**345,363**	**306,397**	**298,119**	**284,813**	**298,262**	**300,143**	**271,368**
CNG								
Canada	211	0	0	0	0	14	16	27
Total CNG exports	**211**	**0**	**0**	**0**	**0**	**14**	**16**	**27**
Total exports	**6,652,609**	**620,886**	**556,982**	**545,055**	**535,583**	**563,572**	**566,046**	**539,165**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2021-2023

volumes in million cubic feet; prices in dollars per thousand cubic feet – continued

	2021				
	May	**April**	**March**	**February**	**January**
Exports					
Volume (million cubic feet)					
Pipeline					
Canada	70,561	74,567	91,301	78,198	84,927
Mexico	192,549	182,918	183,051	137,381	173,360
Total pipeline exports	**263,110**	**257,485**	**274,352**	**215,579**	**258,287**
LNG					
Exports					
By vessel					
Antigua and Barbuda	0	0	0	0	0
Argentina	16,226	4,485	2,238	0	0
Bahamas	45	46	39	29	28
Bangladesh	6,948	10,219	3,566	0	3,148
Barbados	19	30	14	19	17
Belgium	2,100	0	3,484	0	0
Brazil	19,726	11,615	21,977	13,118	21,132
Chile	17,598	10,293	21,320	6,524	9,784
China	37,731	50,474	28,476	3,415	38,940
Colombia	0	892	0	0	0
Croatia	3,364	3,666	7,367	0	0
Dominican Republic	5,283	2,905	5,577	5,689	6,895
Egypt	0	0	0	0	0
El Salvador	0	0	0	0	0
Finland	0	0	0	0	0
France	11,926	36,120	33,678	14,851	3,587
Germany	0	0	0	0	0
Greece	6,796	0	6,805	0	600
Haiti	12	3	10	11	12
India	28,259	13,752	17,381	13,776	20,367
Indonesia	0	0	0	0	0
Israel	0	3,225	2,826	0	0
Italy	2,923	6,896	10,739	0	0
Jamaica	2,925	2,370	2,458	2,365	3,708
Japan	25,058	28,756	27,673	18,271	64,331
Jordan	0	0	0	0	0
Kuwait	0	3,705	3,821	0	0
Lithuania	3,049	3,078	3,228	6,851	0
Malaysia	0	0	0	0	0
Malta	0	2,928	0	0	0
Mexico	0	0	0	13,354	0
Netherlands	26,611	17,060	24,204	22,777	2,949
Nicaragua	0	0	0	0	0
Pakistan	0	3,323	3,421	0	3,682
Panama	2,341	0	3,279	0	516
Poland	3,581	7,382	3,507	7,099	0
Portugal	10,765	7,358	0	3,360	0
Singapore	3,089	3,660	3,303	0	3,688
South Korea	46,033	21,683	32,203	18,094	55,936
Spain	5,234	22,974	13,900	3,733	7,377
Taiwan	10,157	6,594	13,450	0	10,319
Thailand	3,453	7,388	0	0	0
Turkiye	3,017	0	3,619	20,652	26,659
United Arab Emirates	0	0	0	0	0
United Kingdom	10,586	13,877	17,440	34,343	21,436
By truck					
Canada	18	15	0	0	0
Mexico	48	48	19	63	83
Re-exports					
By vessel					
Argentina	0	0	0	0	0
Brazil	0	0	0	0	0
Japan	0	0	0	0	0
South Korea	0	0	0	0	0
United Kingdom	0	0	0	0	0
Total LNG exports	**314,922**	**306,818**	**321,023**	**208,394**	**305,196**
CNG					
Canada	25	29	36	32	32
Total CNG exports	**25**	**29**	**36**	**32**	**32**
Total exports	**578,056**	**564,333**	**595,411**	**424,004**	**563,515**

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2018-2023

million cubic feet

Year and month	Alaska	Arkansas	California	Colorado	Kansas	Louisiana	Montana	New Mexico	North Dakota	Ohio
2018 total	**341,315**	**589,985**	**202,617**	**1,847,402**	**201,391**	**2,832,404**	**43,530**	**1,493,082**	**706,552**	**2,403,382**
2019 total	**329,361**	**524,757**	**196,823**	**1,986,916**	**183,087**	**3,212,318**	**43,534**	**1,769,086**	**850,826**	**2,651,631**
2020 total	**339,337**	**481,205**	**155,979**	**1,996,740**	**163,362**	**3,205,574**	**38,191**	**1,965,533**	**887,445**	**2,389,629**
2021										
January	31,667	39,288	11,467	160,766	12,900	277,421	3,292	173,924	83,195	193,017
February	28,365	30,185	10,352	143,192	10,142	223,272	2,860	144,784	70,130	174,338
March	31,483	42,468	11,434	157,254	13,251	283,012	3,300	180,642	83,245	193,017
April	29,514	37,756	11,121	156,092	12,830	273,644	3,078	178,897	82,920	185,344
May	29,005	38,563	12,342	163,746	13,073	283,573	3,329	187,958	85,321	191,522
June	27,715	36,921	11,209	155,104	12,711	276,148	2,975	184,699	82,521	185,344
July	26,280	38,047	12,141	161,273	13,227	299,944	3,321	195,871	79,978	189,619
August	27,864	37,755	11,512	159,501	13,227	292,795	3,343	199,330	84,253	189,619
September	28,534	36,527	11,202	154,695	12,770	290,609	3,286	194,265	85,061	183,502
October	30,458	37,648	11,298	162,706	13,227	307,739	3,462	200,454	87,534	199,954
November	30,735	36,102	10,925	156,654	12,711	310,407	3,297	195,247	87,017	193,503
December	33,039	37,023	11,031	159,277	12,918	325,203	3,176	201,095	87,918	199,954
Total	**354,660**	**448,283**	**136,034**	**1,890,260**	**152,986**	**3,443,767**	**38,719**	**2,237,165**	**999,094**	**2,278,731**
2022										
January	32,865	36,087	11,347	155,786	12,478	318,772	3,119	199,405	81,490	190,930
February	30,014	32,336	9,814	141,557	11,122	290,031	2,977	184,452	75,867	172,453
March	32,473	36,319	11,603	159,101	12,465	319,562	3,370	218,272	88,106	190,930
April	30,910	35,043	11,384	153,816	12,347	324,537	3,175	216,047	68,665	181,993
May	31,677	35,781	11,593	154,313	12,826	348,337	3,170	222,902	81,340	188,060
June	28,644	34,299	11,296	149,081	12,302	336,152	3,208	215,334	86,437	181,993
July	29,654	35,096	11,734	153,856	12,659	348,334	3,367	228,003	90,288	193,328
August	29,380	35,394	12,177	155,140	12,814	351,777	3,544	229,728	89,688	193,328
September	29,288	34,211	11,260	151,515	11,854	348,817	3,491	231,482	90,550	187,092
October	31,122	35,112	11,520	156,992	13,008	365,742	3,560	250,312	93,103	190,335
November	30,934	33,568	11,095	151,304	12,206	357,021	3,266	239,821	85,482	184,195
December	36,181	32,951	11,396	150,558	11,764	355,708	2,461	251,472	76,605	190,335
Total	**373,141**	**416,196**	**136,220**	**1,833,019**	**147,846**	**4,064,791**	**38,709**	**2,687,231**	**1,007,621**	**2,244,971**
2023										
January	33,391	E34,788	E11,055	E151,849	E11,783	E363,863	E3,538	E254,905	E83,384	E198,189
February	30,726	E31,085	E10,042	E135,238	E10,528	E352,464	E3,233	E233,411	E80,766	E174,917
March	32,676	E34,429	E10,900	E150,138	E11,441	E370,158	E3,565	E268,590	E88,736	E199,571
April	31,313	E32,911	E10,652	E146,856	E11,228	E363,538	E3,475	E259,515	E88,066	E187,566
May	31,288	E33,689	E11,243	E152,690	E11,555	E379,548	E3,577	E263,626	E92,326	E191,104
June	28,991	RE32,280	RE10,795	RE149,138	RE10,817	RE345,747	RE3,469	RE252,650	RE92,129	RE179,766
July	R28,478	RE33,100	RE11,232	RE155,421	RE10,999	RE363,943	RE3,564	RE264,932	RE96,582	RE189,030
August	26,756	E32,981	E11,230	E157,710	E11,311	E369,943	E3,681	E270,419	E97,109	E195,202
2023 8-month YTD	**243,618**	**E265,261**	**E87,150**	**E1,199,040**	**E89,660**	**E2,909,205**	**E28,103**	**E2,068,047**	**E719,099**	**E1,515,344**
2022 8-month YTD	**245,616**	**280,354**	**90,948**	**1,222,651**	**99,013**	**2,637,503**	**25,930**	**1,714,144**	**661,881**	**1,493,015**
2021 8-month YTD	**231,894**	**300,983**	**91,578**	**1,256,928**	**101,360**	**2,209,810**	**25,499**	**1,446,104**	**651,564**	**1,501,819**

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2018-2023

million cubic feet – continued

Year and month	Oklahoma	Pennsylvania	Texas	Utah	West Virginia	Wyoming	Other states	Federal Gulf of Mexico	U.S. total
2018 total	**2,875,787**	**6,264,832**	**8,041,010**	**295,826**	**1,771,698**	**1,637,517**	**485,675**	**974,863**	**33,008,867**
2019 total	**3,036,052**	**6,896,792**	**9,378,489**	**271,808**	**2,155,214**	**1,488,854**	**456,024**	**1,015,343**	**36,446,918**
2020 total	**2,673,207**	**7,168,902**	**9,813,035**	**241,965**	**2,567,990**	**1,206,122**	**435,117**	**791,491**	**36,520,826**
2021									
January	216,559	652,283	799,384	19,392	226,357	97,700	35,166	71,804	3,105,581
February	162,358	585,293	610,705	18,126	198,404	89,387	31,295	64,043	2,597,230
March	217,547	649,393	828,055	20,404	217,550	95,201	34,611	74,201	3,136,068
April	211,950	620,194	823,807	19,783	215,237	92,348	34,385	69,762	3,058,663
May	218,136	635,492	847,314	20,313	226,230	94,307	35,810	72,051	3,158,085
June	209,019	616,203	817,582	19,522	220,743	90,244	29,181	67,424	3,045,264
July	219,906	638,130	860,680	20,601	221,714	93,624	30,406	71,746	3,176,507
August	218,176	646,670	862,398	20,347	234,964	89,735	33,021	61,409	3,185,920
September	216,136	627,305	858,752	19,928	224,034	92,092	30,825	34,553	3,104,078
October	222,128	651,674	886,988	20,460	231,720	93,092	37,901	60,037	3,258,481
November	220,076	646,383	856,488	20,004	221,495	90,106	32,243	65,566	3,188,958
December	223,437	678,051	897,003	20,541	236,698	91,580	37,047	68,035	3,323,025
Total	**2,555,430**	**7,647,068**	**9,949,156**	**239,422**	**2,675,145**	**1,109,416**	**401,892**	**780,632**	**37,337,860**
2022									
January	216,347	657,613	878,743	20,719	234,795	89,680	30,986	64,105	3,235,266
February	196,621	577,251	795,295	18,516	209,707	78,589	31,234	56,642	2,914,480
March	225,203	634,328	903,364	21,502	239,344	87,991	34,249	64,273	3,282,454
April	226,464	614,569	880,176	21,243	235,580	86,485	31,383	65,402	3,199,218
May	235,497	638,527	918,979	22,306	247,179	85,606	32,053	61,895	3,332,041
June	231,202	616,619	881,753	21,786	240,568	85,970	31,592	64,090	3,232,326
July	239,209	644,039	920,414	22,646	251,625	89,886	34,763	66,176	3,375,077
August	238,619	635,404	937,041	23,549	255,603	87,801	33,420	67,976	3,392,383
September	238,112	618,364	925,985	21,849	245,734	83,339	32,595	64,875	3,330,414
October	245,755	637,050	941,968	22,103	251,647	88,939	33,226	66,250	3,437,743
November	234,562	613,000	910,587	21,297	255,298	85,621	32,901	64,414	3,326,572
December	236,429	624,415	934,211	22,675	253,533	82,730	32,644	64,307	3,370,376
Total	**2,764,019**	**7,511,179**	**10,828,515**	**260,192**	**2,920,613**	**1,032,634**	**391,046**	**770,406**	**39,428,350**
2023									
January	[E]241,437	[E]646,645	[E]935,962	[E]22,310	[E]256,931	[E]79,538	[E]31,536	[E]67,666	[E]3,428,769
February	[E]217,813	[E]572,742	[E]842,907	[E]18,969	[E]231,585	[E]69,492	[E]27,372	[E]59,490	[E]3,102,781
March	[E]240,498	[E]642,354	[E]961,177	[E]22,752	[E]266,638	[E]78,520	[E]27,921	[E]64,871	[E]3,474,934
April	[E]232,276	[E]619,656	[E]932,661	[E]22,593	[E]256,029	[E]75,109	[E]30,110	[E]58,454	[E]3,362,007
May	[E]237,558	[E]648,124	[E]982,394	[E]24,031	[E]268,279	[E]81,880	[E]30,706	[E]56,290	[E]3,499,909
June	[RE]233,220	[E]627,912	[RE]949,437	[E]24,338	[RE]266,083	[RE]80,375	[RE]31,225	[RE]57,076	[RE]3,375,450
July	[RE]238,781	[RE]643,263	[RE]985,246	[RE]24,168	[RE]279,996	[RE]70,814	[RE]32,548	[RE]62,939	[RE]3,495,034
August	[E]236,732	[E]646,526	[E]994,420	[E]25,151	[E]281,265	[E]76,092	[E]32,239	[E]59,928	[E]3,528,695
2023 8-month YTD	**[E]1,878,314**	**[E]5,047,224**	**[E]7,584,203**	**[E]184,312**	**[E]2,106,805**	**[E]611,821**	**[E]243,656**	**[E]486,716**	**[E]27,267,578**
2022 8-month YTD	**1,809,161**	**5,018,350**	**7,115,765**	**172,267**	**1,914,402**	**692,006**	**259,680**	**510,560**	**25,963,245**
2021 8-month YTD	**1,673,652**	**5,043,655**	**6,449,925**	**158,488**	**1,761,198**	**742,545**	**263,875**	**552,441**	**24,463,318**

[R] Revised data.

[E] Estimated data.

[RE] Revised estimated data.

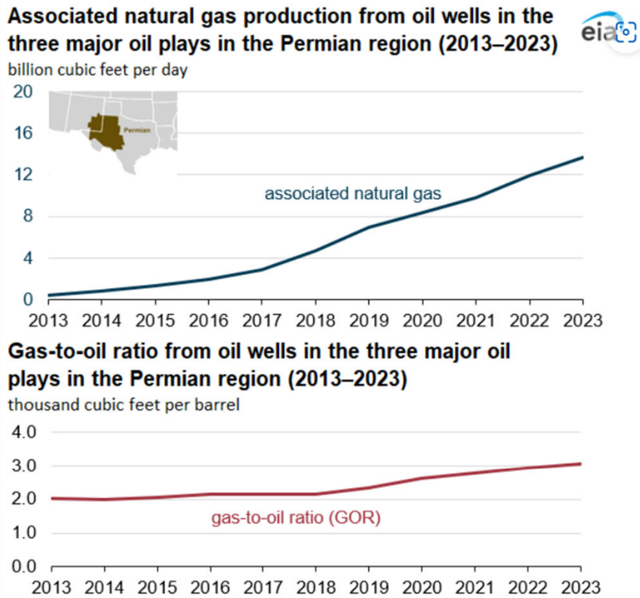
Source: 2018-2022: U.S. Energy Information Administration (EIA), *Natural Gas Annual 2022*, Bureau of Safety and Environmental Enforcement (BSEE), IHS Markit, and Enverus. January 2023 through current month: Form EIA-914, *Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report*; and EIA computations.

Note: For 2023 forward, we estimate state monthly marketed production from gross withdrawals using historical relationships between the two. We collect data for Arkansas, California, Colorado, Kansas, Louisiana, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, West Virginia, Wyoming, and federal offshore Gulf of Mexico individually on the EIA-914 report. The "other states" category comprises states/areas not individually collected on the EIA-914 report (Alabama, Arizona, Federal Offshore Pacific, Florida, Idaho, Illinois, Indiana, Kentucky, Maryland, Michigan, Mississippi, Missouri, Nebraska, Nevada, New York, Oregon, South Dakota, Tennessee, and Virginia). Before 2023, Federal Offshore Pacific is included in California. We obtain all data for Alaska directly from the state. Monthly preliminary state-level data for all states not collected individually on the EIA-914 report are available after the final annual reports for these series are collected and processed. Final annual data are generally available in the third quarter of the following year. The sum of individual states may not equal total U.S. volumes because of independent rounding.

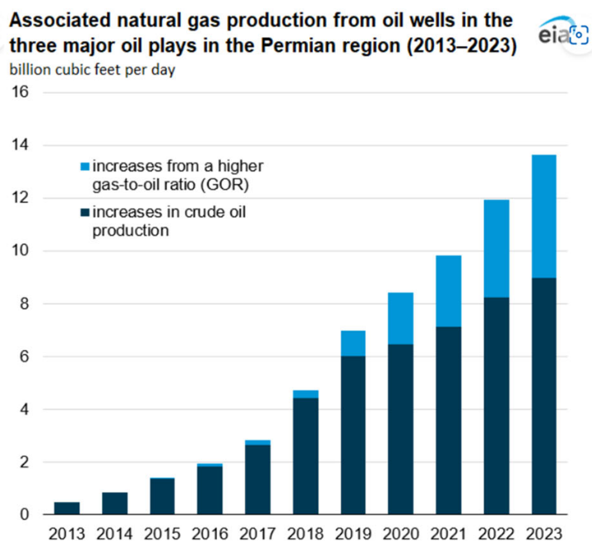
https://www.eia.gov/naturalgas/weekly/#itn-tabs-1

Natural Gas Weekly Update

for week ending November 1, 2023 | **Release date:** November 2, 2023 | **Next release:** November 9, 2023



Data source: Enverus DrillingInfo
Note: Information on EIA's classification of oil and natural gas wells can be found in our *Drilling Productivity Report Supplement*. The three major oil plays are the Spraberry, Wolfcamp, and Bone Spring plays.



Data source: Enverus DrillingInfo
Note: Information on EIA's classification of oil and natural gas wells can be found in our *Drilling Productivity Report Supplement*. The three major oil plays are the Spraberry, Wolfcamp, and Bone Spring plays. Increases in associated natural gas production from a higher gas-to-oil ratio (GOR) are compared with the 2013 average GOR of 2.0 thousand cubic feet of natural gas per barrel of oil produced.

In the News:

Associated natural gas production nearly triples in the top three Permian oil plays since 2018

Associated-dissolved natural gas (associated natural gas) produced from the three top producing tight oil plays in the Permian region—the Wolfcamp, Spraberry, and Bone Spring plays—has nearly tripled since 2018, from an annual average of 4.7 billion cubic feet per day (Bcf/d) to 13.7 Bcf/d in the first seven months of 2023. Production has grown due to both rising crude oil production in the Permian region and an increasing gas-to-oil ratio (GOR) among the oil wells in these three plays. The GOR measures the volume of natural gas per barrel of oil that a well produces.

The Permian region, which spans parts of western Texas and southeastern New Mexico, is the top crude-oil producing region in the United States, accounting for more than 40% of total U.S. crude oil production; it is the second-largest natural-gas-producing region in the country, accounting for about a quarter of total U.S. marketed natural gas production. Most of the natural gas produced in the Permian region is associated natural gas. Increased crude oil production has contributed to increased associated natural gas production in the Permian region; average annual crude oil production has more than tripled since 2018, from 1.3 million barrels per day (b/d) to 4.1 million b/d in 2022.

The Spraberry, Wolfcamp, and Bone Spring plays produce a majority of the associated natural gas within the Permian region. Over the past decade, the combined GOR of these three plays has increased from 2.0 thousand cubic feet of natural gas per barrel of oil produced (Mcf/b) in 2013 to 3.1 Mcf/b in the first seven months of 2023. From 2013 to 2023, associated natural gas production from these three plays increased by 13.2 Bcf/d; about 4.7 Bcf/d of the increase came as a result of the increased GOR compared with 2013, while the other 9.0 Bcf/d of increased production came from increased crude oil production.

We define oil wells as those with a GOR of less than or equal to 6.0 Mcf/b. Any increase in the GOR in an oil well means more natural gas per barrel of oil is being produced.

The GOR of an oil well increases naturally over time. Pressure within the reservoir declines progressively as more oil is brought to the surface, which allows more natural gas to be released from the geologic formation. As more oil and natural gas is released within a well, the GOR tends to progressively increase, increasing the volume of associated natural gas produced per every barrel of oil.

We provide a national breakdown of crude oil and natural gas production volumes based on well type classification annually.

Summary

Overview of Activity for August 2023

- **Top five countries of destination, representing 48.9% of total U.S. LNG exports in August 2023**
  - Netherlands (57.4 Bcf), South Korea (34.9 Bcf), France (34.3 Bcf), Japan (24.2 Bcf), and Italy (21.5 Bcf)
- **353.0 Bcf of exports in August 2023**
  - 1.1% increase from July 2023
  - 17.7% more than August 2022
- **114 cargos shipped in August 2023**
  - Sabine Pass (35), Cameron (27), Freeport (25), Corpus Christi (18), Cove Point (7), and Elba (2)
  - 116 cargos in July 2023
  - 99 cargos in August 2022

1a. Table of Exports of Domestically-Produced LNG Delivered by Region (Cumulative from February 2016 through August 2023)

Region	Number of Countries Receiving Per Region	Volume Exported (Bcf)	Percentage Receipts of Total Volume Exported (%)	Number of Cargos*
East Asia and Pacific	8	5,069.3	30.9%	1511
Europe and Central Asia	15	7,641.1	46.6%	2388
Latin America and the Caribbean**	14	2,341.3	14.3%	856
Middle East and North Africa	5	408.4	2.5%	119
South Asia	3	942.8	5.7%	279
Sub-Saharan Africa	0	0.0	0.0%	0
Total LNG Exports	**45**	**16,402.9**	**100.0%**	**5,155**

*Split cargos counted as both individual cargos and countries

**Number of cargos does not include the shipments by ISO container

1b. Shipments of Domestically-Produced LNG Delivered – by Country
(Cumulative from February 2016 through August 2023)

Country of Destination	Region	Number of Cargos	Volume (Bcf of Natural Gas)	Percentage of Total U.S LNG Exports (%)
South Korea*	East Asia and Pacific	546	1,887.2	11.5%
Japan*	East Asia and Pacific	419	1,428.7	8.7%
United Kingdom*	Europe and Central Asia	395	1,313.3	8.0%
France*	Europe and Central Asia	393	1,276.0	7.8%
Spain*	Europe and Central Asia	394	1,227.5	7.5%
Netherlands*	Europe and Central Asia	339	1,149.1	7.0%
China*	East Asia and Pacific	327	1,095.0	6.7%
India*	South Asia	215	731.8	4.5%
Turkiye*	Europe and Central Asia	209	667.7	4.1%
Brazil*	Latin America and the Caribbean	227	629.4	3.8%
Mexico*	Latin America and the Caribbean	167	555.1	3.4%
Chile*	Latin America and the Caribbean	143	450.5	2.7%
Italy*	Europe and Central Asia	136	441.2	2.7%
Taiwan*	East Asia and Pacific	125	398.0	2.4%
Poland*	Europe and Central Asia	106	351.3	2.1%
Argentina*	Latin America and the Caribbean	142	342.2	2.1%
Portugal*	Europe and Central Asia	99	314.9	1.9%
Greece*	Europe and Central Asia	90	204.7	1.2%
Dominican Republic*	Latin America and the Caribbean	86	204.2	1.2%
Kuwait	Middle East and North Africa	53	184.9	1.1%
Lithuania	Europe and Central Asia	59	182.1	1.1%
Belgium*	Europe and Central Asia	57	179.7	1.1%
Croatia	Europe and Central Asia	49	148.5	0.9%
Germany	Europe and Central Asia	43	138.9	0.8%
Pakistan*	South Asia	40	128.9	0.8%
Jordan*	Middle East and North Africa	37	127.5	0.8%
Thailand*	East Asia and Pacific	35	123.4	0.8%
Singapore*	East Asia and Pacific	37	120.8	0.7%
Bangladesh*	South Asia	24	82.1	0.5%
Panama*	Latin America and the Caribbean	34	64.5	0.4%
Jamaica*	Latin America and the Caribbean	33	59.6	0.4%
United Arab Emirates	Middle East and North Africa	15	51.1	0.3%
Colombia*	Latin America and the Caribbean	23	30.2	0.2%
Israel*	Middle East and North Africa	9	28.0	0.2%
Finland	Europe and Central Asia	10	26.0	0.2%
Malta*	Europe and Central Asia	11	20.1	0.1%
Egypt*	Middle East and North Africa	5	16.9	0.1%
Indonesia*	East Asia and Pacific	21	12.5	0.1%
Malaysia	East Asia and Pacific	1	3.7	0.0%
El Salvador	Latin America and the Caribbean	1	0.0	0.0%
Total Exports by Vessel		**5,155**	**16,397.2**	
Jamaica	Latin America and the Caribbean	182	2.0	0.0%
Bahamas	Latin America and the Caribbean	779	1.9	0.0%
Barbados	Latin America and the Caribbean	305	1.3	0.0%
Haiti	Latin America and the Caribbean	153	0.5	0.0%
Antigua and Barbuda	Latin America and the Caribbean	61	0.1	0.0%
Nicaragua	Latin America and the Caribbean	1	0.0	0.0%
Germany	Europe and Central Asia	1	0.0	0.0%
Total Exports by ISO		**1,482**	**5.8**	
Total Exports by Vessel and ISO		**6,637**	**16,402.9**	

Note:

Volume and Number of Cargos are the cumulative totals of each individual Country of Destination by Region starting from February 2016.

Jamaica has received U.S. LNG exports by both vessel and ISO container. The volumes are totaled separately

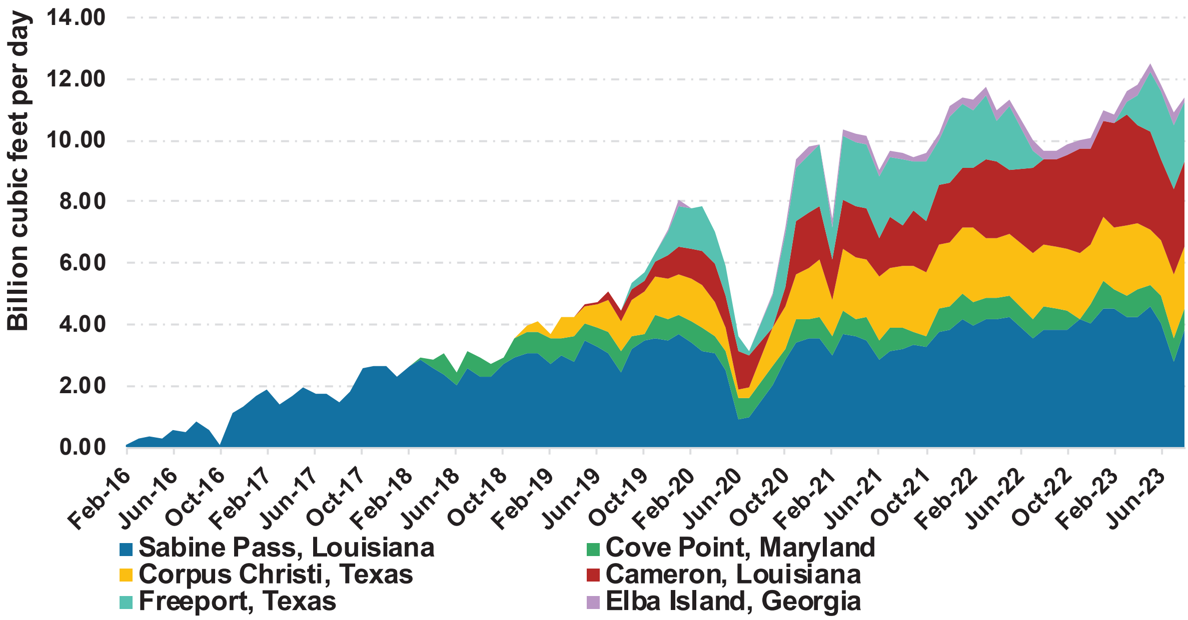
* Split cargos counted as both individual cargos and countries.

Vessel = LNG Exports by Vessel and ISO container = LNG Exports by Vessel in ISO Containers.

Does not include re-exports of previously-imported LNG. See table 2c for re-exports data.

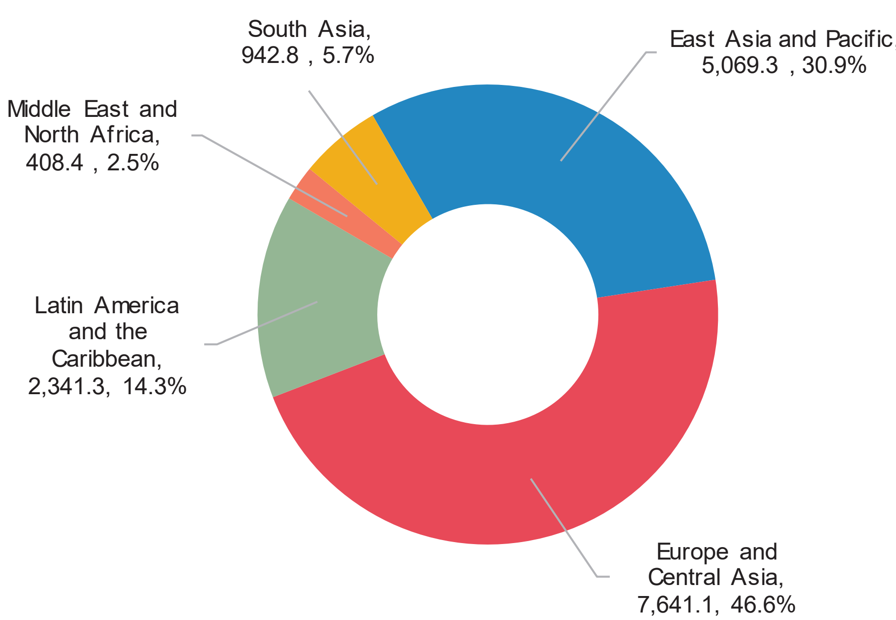
Totals may not equal sum of components because of independent rounding.

1c. Domestically-Produced LNG Exported by Point of Exit
(February 2016 through August 2023)



The Cameron, LA point of exit includes exports from Cameron LNG and Venture Global Calcasieu Pass.

1d. Domestically-Produced LNG Exported by Region
(Cumulative from February 2016 through August 2023)
(Bcf, %)



https://www.coastalgaslink.com/whats-new/news-stories/2023/2023-10-30-october-construction-update/

Oct 30 2023

October construction update

Posted by Coastal GasLink

Major milestone: Coastal GasLink achieves 100% pipe installation

Coastal GasLink has achieved 100% pipe installation across the entire project route, connecting northeastern B.C. to LNG Canada's facility on the west coast. The final 'Golden Weld' took place at the base of Cable Crane Hill in Section 8 West earlier this month.

This milestone means that all 670 kilometres of pipe has been welded, coated, lowered into the trench, rigorously tested, and backfilled. From the Wilde Lake Compressor Station near Dawson Creek to our Metering Station in Kitimat, physical construction on the project is now complete.

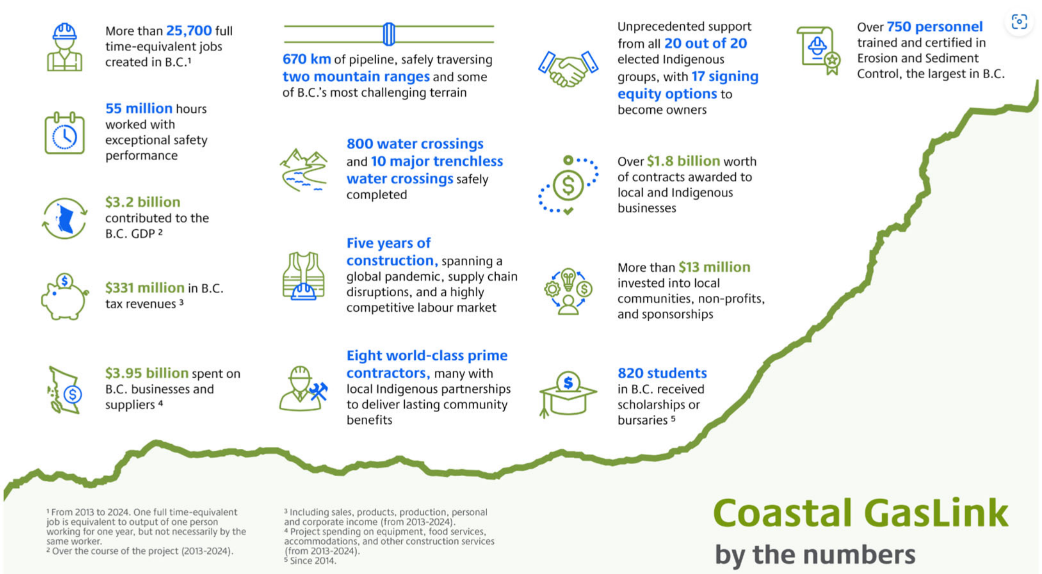
The work is the last step before mechanical completion which is well on track for our year-end target and advances Coastal GasLink as Canada's first direct path for LNG to international markets.

What's next

While completion activities advance, the Coastal GasLink team continues to work on clean-up and reclamation along the route, including time sensitive work that must take place prior to the onset of winter. This work will continue post mechanical completion and commissioning and also factors in erosion and sediment control (ESC) measures as required to protect the environment and meet our commitments. Following mechanical completion, our highly trained team will be planning the introduction of gas.

By the numbers

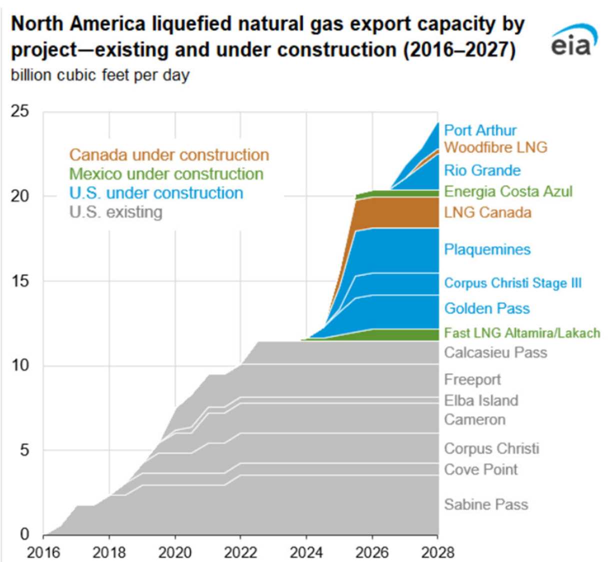
This milestone is part of the incredible story of Coastal GasLink, on and off the project route, from the completion of major feats of engineering, to the extraordinary legacy the project has created for B.C., Canada, and North America.



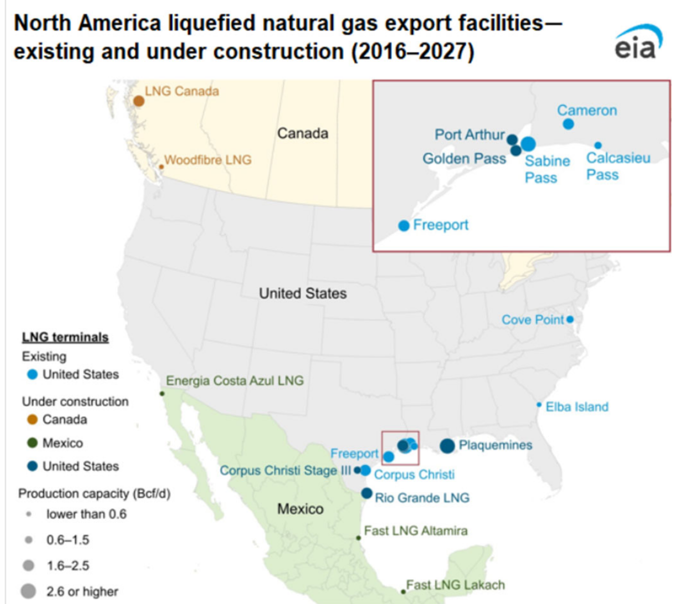
https://www.eia.gov/naturalgas/weekly/archivenew_ngwu/2023/10_26/

Natural Gas Weekly Update

for week ending October 25, 2023 | **Release date:** October 26, 2023 | **Next release:** November 2, 2023 | Previous weeks



Data source:U.S. Energy Information Administration, *Liquefaction Capacity File*; trade press.
Note: LNG=liquefied natural gas. Export capacity shown is project's baseload capacity. Online dates of LNG export projects under construction are estimates based on trade press.



Data source:U.S. Energy Information Administration, *Liquefaction Capacity File*; trade press.

LNG exports from North America are set to expand with new projects

Over the next five years, we expect North America's liquefied natural gas (LNG) export capacity to expand by 12.9 billion cubic feet per day (Bcf/d) as Mexico and Canada place into service their first LNG export terminals and the United States adds to its 11.4 Bcf/d of existing LNG capacity. By the end of 2027, we estimate LNG export capacity will grow by 1.1 Bcf/d in Mexico, 2.1 Bcf/d in Canada, and 9.7 Bcf/d in the United States from a total of ten new projects across the three countries.

Mexico. Three projects with a combined LNG export capacity of 1.1 Bcf/d are currently under construction—Fast LNG Altamira offshore and onshore, Fast LNG Lakach on the east coast, and Energia Costa Azul on the west coast.

- Fast LNG Altamira consists of three units, each with a capacity to liquefy up to 0.18 Bcf/d. The first unit will be located offshore and the other two units will be installed onshore at the Altamira LNG regasification terminal. These units will be supplied by natural gas from the United States delivered via the Sur de Texas-Tuxpan pipeline. The first LNG exports from the offshore unit are expected in December 2023, and LNG exports from the onshore units are expected in 2025.
- The Fast LNG Lakach unit (capacity 0.18 Bcf/d) will be installed offshore of Veracruz, Mexico, at the nearby Lakach natural gas field. First LNG exports are expected in 2026.
- The Energia Costa Azul LNG export terminal is located at the site of the existing LNG regasification terminal in Baja California, western Mexico. The LNG export capacity will be 0.4 Bcf/d for Phase 1 (under construction) and 1.6 Bcf/d for Phase 2 (proposed). The export terminal will be supplied with natural gas from the Permian Basin in the United States.

Developers have proposed other LNG export projects for Mexico's west coast, including Saguaro Energia LNG, Salina Cruz FLNG, and Vista Pacifico LNG, which have a combined capacity over 2.7 Bcf/d. These projects will use relatively low-cost natural gas imported from the United States for LNG exports to Asian markets. However, none of these proposed projects has reached a final investment decision yet.

Canada. Two LNG export projects with a combined capacity of 2.1 Bcf/d are under construction in British Columbia on Canada's west coast. LNG Canada (with an export capacity of 1.8 Bcf/d) is scheduled to begin service in 2025, and Woodfibre LNG (0.3 Bcf/d) is scheduled to begin service in 2027. Both export terminals will be supplied with natural gas from western Canada. In addition, the Canada Energy Regulator (CER) has authorized an additional 18 LNG export projects with a combined capacity of 29 Bcf/d.
United States. Five LNG export projects are currently under construction with a combined 9.7 Bcf/d of LNG export capacity—Golden Pass, Plaquemines, Corpus Christi Stage III, Rio Grande, and Port Arthur. LNG exports from Golden Pass LNG and Plaquemines LNG are expected to start in 2024.

https://www.qatarenergy.qa/en/MediaCenter/Pages/newsdetails.aspx?ItemId=3779

QATARENERGY, SINOPEC SIGN HISTORIC NORTH FIELD SOUTH PARTNERSHIP AND 27-YEAR LNG SUPPLY AGREEMENT -

DOHA, Qatar • 4 November 2023 – QatarEnergy has announced the signing of a partnership agreement with China Petrochemical Corporation (Sinopec) for the North Field South (NFS) expansion project.
The two sides also signed a long-term sales and purchase agreement (SPA) for the delivery of 3 million tons per annum (MTPA) of LNG from the NFS project to Sinopec's receiving terminals in China over a span of 27 years.

The agreements were signed in Shanghai today by His Excellency Mr. Saad Sherida Al-Kaabi, the Minister of State for Energy Affairs, the President and CEO of QatarEnergy, and Dr. MA Yong-sheng, the Chairman of Sinopec, in a special ceremony attended by senior executives from both companies.

Pursuant to the terms of the partnership agreement, QatarEnergy will transfer a 5% interest to Sinopec in a joint venture company that owns the equivalent of 6 million tons per annum (MTPA) of LNG production capacity in the NFS project.

Today's partnership agreement is the second of its kind with Sinopec, following a similar one signed in Doha last April, which marked Sinopec's entry as a shareholder in one of the North Field East (NFE) joint venture companies that own the NFE project, one of the most critical projects in the global LNG industry. The agreement will not affect the participating interests of any of the other shareholders.

The long-term LNG SPA signed today follows another SPA signed in November 2022 for the supply of 4 MTPA of LNG over 27 years, the longest LNG supply agreement in the history of the industry.

These historic milestones are a testament to the excellent bilateral relations between the People's Republic of China and the State of Qatar as well as between Sinopec and QatarEnergy.

#

#

#

https://investors.chk.com/2023-10-31-CHESAPEAKE-ENERGY-CORPORATION-AND-VITOL-SIGN-LONG-TERM-LNG-SUPPLY-HEADS-OF-AGREEMENT-INDEXED-TO-JAPAN-KOREA-MARKER

CHESAPEAKE ENERGY CORPORATION AND VITOL SIGN LONG-TERM LNG SUPPLY HEADS OF AGREEMENT INDEXED TO JAPAN KOREA MARKER

-

OKLAHOMA CITY, Oct. 31, 2023 /PRNewswire/ -- Chesapeake Energy Corporation (NASDAQ:CHK) and Vitol Inc. ("Vitol") today announced the entrance into a Heads of Agreement ("HOA") with Chesapeake Energy Marketing L.L.C. ("Chesapeake") a subsidiary of Chesapeake Energy Corporation.

Under the HOA, Chesapeake will supply up to 1 million tonnes of LNG per annum to Vitol with the purchase price indexed to Japan Korea Marker ("JKM") for a period of 15 years. Following the execution of the HOA, Chesapeake and Vitol will jointly select the most optimal liquefaction facility in the United States to liquify the gas produced by Chesapeake for delivery to Vitol. The HOA has a targeted start date in 2028.

Nick Dell'Osso, Chesapeake President and Chief Executive Officer, said, "We are pleased to expand our relationship with Vitol to deliver independently certified reliable, affordable, lower carbon energy to global markets in need. Today's announcement marks another important step on our path to 'Be LNG Ready', and is further recognition of the premium rock, returns, and runway of our advantaged portfolio and the strength of our financial position. We look forward to entering into additional agreements as export capacity continues to come online."

Ben Marshall, Head of Vitol Americas, said: "We are excited to build upon our existing relationship with Chesapeake. The global energy landscape has changed significantly in the last two years, which has highlighted the importance of U.S. natural gas production and liquefaction in satisfying the world's energy needs. Global LNG demand is experiencing tremendous growth and Vitol continues to strengthen its position to safely and reliably deliver cost effective, flexible solutions to our customers around the world."

About Chesapeake:
Headquartered in Oklahoma City, Chesapeake Energy Corporation (NASDAQ:CHK) is powered by dedicated and innovative employees who are focused on discovering and responsibly developing leading positions in top U.S. oil and gas plays. With a goal to achieve net zero GHG emissions (Scope 1 and 2) by 2035, Chesapeake is committed to safely answering the call for affordable, reliable, lower carbon energy.

About Vitol:
Vitol is a leader in the energy sector with a presence across the spectrum: from oil through to power, renewables and carbon. Chartering circa 6,000 sea voyages every year, it trades 7.4 million barrels per day of crude oil and products, 13.7 million mt LNG per annum and has contracted sales of 1,500 TWh of natural gas each year.

Vitol's clients include national oil companies, multinationals, leading industrial companies and utilities. Founded in Rotterdam in 1966, today Vitol serves clients from some 40 offices worldwide and is invested in energy assets globally including: gas to power production,

thermal and renewable power plants with circa 1.2 GW of capacity, more than 17 million m^3 of storage globally, 500,000 barrels per day of refining capacity, over 7,000 service stations and a growing portfolio of transitional and renewable energy assets. Revenues in 2022 were $505 billion.

For more information: www.vitol.com https://lngir.cheniere.com/news-events/press-releases/detail/288/cheniere-and-foran-energy-group-sign-long-term-lng-sale-and

Cheniere and Foran Energy Group Sign Long-Term LNG Sale and Purchase Agreement

Download as PDF NOVEMBER 02, 2023 7:45AM EDT

20-Year SPA is First Contract Expected to Support Second Train of Sabine Pass Expansion Project

HOUSTON--(BUSINESS WIRE)-- Cheniere Energy, Inc. (“Cheniere” or the “Company”) (NYSE American: LNG) announced today that Cheniere’s subsidiary, Cheniere Marketing, LLC (“Cheniere Marketing”), has entered into a long-term liquefied natural gas (“LNG”) sale and purchase agreement (“SPA”) with Foran Energy Group Co. Ltd. (“Foran”).

Under the SPA, Foran has agreed to purchase approximately 0.9 million tonnes per annum (“mtpa”) of LNG for 20 years from Cheniere Marketing on a free-on-board (“FOB”) basis for a purchase price indexed to the Henry Hub price, plus a fixed liquefaction fee. Deliveries will commence upon the start of commercial operations of the second train (“Train Eight”) of the Sabine Pass Liquefaction Expansion Project (“SPL Expansion Project”) in Louisiana and are subject to, among other things, a positive Final Investment Decision with respect to Train Eight.

“We are pleased to build upon our existing long-term relationship with Foran, one of the fastest growing natural gas companies in China, with the signing of our second 20-year SPA that secures increased LNG volumes for Foran for the long term,” said Jack Fusco, Cheniere’s President and Chief Executive Officer. “This 20-year SPA further supports China’s commitment to growing natural gas as a primary energy source and provides Foran with a flexible and reliable LNG solution for its operations. The SPA is also expected to support the SPL Expansion Project, and represents the first contract signed in connection with the project’s second train.”

The SPL Expansion Project is being developed for up to approximately 20 mtpa of LNG capacity. In May 2023, certain subsidiaries of Cheniere Energy Partners, L.P. (NYSE American: CQP) entered the pre-filing review process with respect to the SPL Expansion Project with the Federal Energy Regulatory Commission.

About Cheniere

Cheniere Energy, Inc. is the leading producer and exporter of LNG in the United States, reliably providing a clean, secure, and affordable solution to the growing global need for natural gas. Cheniere is a full-service LNG provider, with capabilities that include gas procurement and transportation, liquefaction, vessel chartering, and LNG delivery. Cheniere has one of the largest liquefaction platforms in the world, consisting of the Sabine Pass and Corpus Christi liquefaction facilities on the U.S. Gulf Coast, with total production capacity of approximately 45 mtpa of LNG in operation and an additional 10+ mtpa of expected production capacity under construction. Cheniere is also pursuing liquefaction expansion opportunities and other projects along the LNG value chain. Cheniere is headquartered in Houston, Texas, and has additional offices in London, Singapore, Beijing, Tokyo, and Washington, D.C.

For additional information, please refer to the Cheniere website at www.cheniere.com and Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, filed with the Securities and Exchange Commission.

About Foran

Foran Energy Group Co., Ltd., formerly Foshan Gas Group Co., Ltd., is one of the fastest growing city gas companies in China primarily engaged in the transmission and distribution of natural gas in the Guangdong region. Foran also provides gas engineering design and construction, integrated energy supply, natural gas trading, gas storage peak shaving and actively promotes the development of cutting-edge technologies and core equipment in the entire industrial chain of natural gas and hydrogen energy, such as solid oxide fuel cell (SOFC), furnace thermal equipment manufacturing, energy conservation and emission reduction, in-pipeline testing technology promotion and R&D, and integrated hydrogen production and hydrogenation equipment. Foran was founded in 1993 and is headquartered in Foshan, China. Foran mainly distributes its products within the domestic Chinese market and is expanding its business scope from a city gas company to a comprehensive energy service provider.

Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs

Posted 11am on July 14, 2021

The last 7 days has shown there is a sea change as Asian LNG buyers have made an abrupt change in their LNG contracting and are moving to lock in long term LNG supply. This is the complete opposite of what they were doing pre-Covid when they were trying to renegotiate Qatar LNG long term deals lower and moving away from long term deals to spot/short term sales. Why? We think they did the same math we did in our April 28 blog "*Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?*" and saw a much bigger and sooner LNG supply gap driven by the delay of 5 bcf/d of Mozambique LNG that was built into most, if not all LNG supply forecasts. Asian LNG buyers are committing real dollars to long term LNG deals, which we believe is the best validation for the LNG supply gap. Another validation, Shell, Total and others are aggressively competing to invest long term capital to partner in Qatar Petroleum's massive 4.3 bcf/d LNG expansion despite plans to reduce fossil fuels production in the 2020s. And even more importantly to LNG suppliers, the return to long term LNG contracts provides the financing capacity to commit to brownfield LNG FIDs. The abrupt change by Asian LNG buyers to long term contracts is a game changer for LNG markets and sets the stage for brownfield LNG FIDs likely as soon as before year end 2021. It has to be brownfield LNG FIDs if the gap is coming bigger and sooner. And we return to our April 28 blog point, if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? LNG Canada Phase 1 at 1.8 bcf/d capacity is already a material positive for Cdn natural gas producers. A FID on LNG Canada Phase 2 would be huge, meaning 3.6 bcf/d of Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub. And with a much shorter distance to Asian LNG markets. This is why we focus on global LNG markets for our views on the future value of Canadian natural gas.

<u>Sea change in Asian LNG buyers is also the best validation of the LNG supply gap and big to LNG supply FIDs.</u> Has the data changed or have the market participants changed in how they react to the data? We can't recall exactly who said that on CNBC on July 12, it's a question we always ask ourselves. In the LNG case, the data has changed with Mozambique LNG delays and that has directly resulted in market participants changing and entering into long term contracts. We can't stress enough how important it is to see Asian LNG buyers move to long term LNG deals. (i) Validates the sooner and bigger LNG supply gap. We believe LNG markets should look at the last two weeks of new long term deals for Asian LNG buyers as being the validation of the LNG supply gap that clearly emerged post Total declaring force majeure on its 1.7 bcf/d Mozambique LNG Phase 1 that was under construction and on track for first LNG delivery in 2024. Since then, markets have started to realize the Mozambique delays are much more than 1.7 bcf/d. They have seen major LNG suppliers change their outlook to a more bullish LNG outlook and, most importantly, are now seeing Asian LNG buyers changing from trying to renegotiate long term LNG deals lower to entering into long term LNG deals to have security of supply. Asian LNG buyers are cozying up to Qatar in a prelude to the next wave of Asian buyer long term deals. What better validation is there than companies/countries putting their money where their mouth is. (ii) Provides financial commitment to help push LNG suppliers to FID. We believe these Asian LNG buyers are doing much more than validating a LNG supply gap to markets. The big LNG suppliers can move to FID based on adding more LNG supply to their portfolio, but having more long term deals provides the financial anchor/visibility to long term capital commitment from the buyers. Long term contracts will only help LNG suppliers get to FID.

<u>It was always clear that the Mozambique LNG supply delay was 5.0 bcf/d, not just 1.7 bcf/d from Total Phase 1.</u> LNG markets didn't really react to Total's April 26 declaration of force majeure on its 1.7 bcf/d Mozambique LNG Phase 1. This was an under construction project that was on time to deliver first LNG in 2024. It was in all LNG supply forecasts. There was no timeline given but, on the Apr 29 Q1 call, Total said that it expected any restart decision would be least a year away. If so, we believe that puts any actual construction at least 18 months away. There will be work to do just to get back to where they were when they were forced to stop development work on Phase 1. Surprisingly, markets didn't look the broader implications, which is why we posted our 7-pg Apr 28 blog "*Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?*" [LINK] We highlighted that Mozambique LNG delays were actually 5 bcf/d, not 1.7 bcf/d. And this 5 bcf/d of Mozambique LNG supply was built into most, if not all, LNG supply forecasts. The delay in Total Phase 1 would lead to a commensurate delay in its Mozambique LNG Phase 2 of 1.3 bcf/d. Total Phase 2 was to add 1.3 bcf/d. There was no firm in service date, but it was expected to

follow closely behind Phase 1 to maintain services. That would have put it originally in the 2026/2027 period. But if Phase 1 is pushed back at least 2 years, so will the follow on Phase 2, so more likely, it will be at least 2028/2029. The assumption for most, if not all, LNG forecasts was that Phase 2 would follow Phase 1. Exxon Rozuma Phase 1 of 2.0 bcf/d continues to be pushed back in timeline especially following Total Phase 1. Exxon's Mozambique Rozuma Phase 1 LNG will add 2.0 bcf/d and, pre-Covid, was originally expected to be in service in 2025. The project was being delayed and Total's force majeure has added to the delays. Rozuma onshore LNG facilities are right by Total. On June 20, we tweeted [LINK] on the Reuters report "*Exclusive: Galp says it won't invest in Rovuma until Mozambique ensures security*" [LINK]. Galp is one of Exxon's partners in Rozuma. Reuters reported that Galp said they won't invest in Exxon's Rozuma LNG project until the government ensures security, that this may take a while, they won't be considering the project until after Total has reliably resumed work on its Phase 1, which likely puts any Rozuma decision until at least end of 2022 at the earliest. Galp has taken any Rozuma Phase 1 capex out of their new capex plans thru 2025 and will have to take out projects in their capex plan if Rozuma does come back to work. This puts Rozuma more likely 2028 at the earliest as opposed to before the original expectations of before 2025. Pre-pandemic, Exxon's March 6, 2019 Investor Day noted their operated Mozambique Rovuma LNG Phase 1 was to be 2 trains each with 1.0 bcf/d capacity for total initial capacity of 2.0 bf/d with FID expected in 2019 and first LNG deliveries sometime before 2025. LNG forecasts had been assuming Exxon Rozuma would be onstream around 2025. The 2019 FID expectation was later pushed to be expected just before the March 2020 investor day. But the pandemic hit, and on March 21, 2020, we tweeted [LINK] on the Reuters story "*Exclusive: Coronavirus, gas slump put brakes on Exxon's giant Mozambique LNG plan*" [LINK] that noted Exxon was expected to delay the Rovuma FID. There was no timeline, but now, any FID is not expected until late 2022 at the earliest, that would push first LNG likely to at least 2028. What this means is that the Mozambique LNG delays are not 1.7 bcf/d but 5.0 bcf/d of projects that were in all, if not most, LNG supply forecasts. There is much more in our 7-pg blog. But Mozambique is what is driving a much bigger and sooner LNG supply gap starting ~2025 and stronger outlook for LNG prices

<u>One of the reasons why it went under the radar is that major LNG suppliers played stupid on the Mozambique impact.</u> It makes it harder for markets to see a big deal when the major LNG suppliers weren't making a big deal of Mozambique or playing stupid in the case of Cheniere in their May 4 Q1 call. In our May 9, 2021 Energy Tidbits memo, we said we had to chuckle when we saw Cheniere's response in the Q&A to its Q1 call on May 4 that they only know what we know from reading the Total releases on Mozambique and its impact on LNG markets. It's why we tweeted [LINK] "*Hmm! $LNG says only know what we read on #LNG market impact from $TOT $XOM MZ LNG delays*. *Surely #TohokuElectric & other offtake buyers are reaching out to #Cheniere. MZ LNG delays is a game changer to LNG in 2020s, see SAF Group blog. Thx @olympe_mattei @TheTerminal #NatGas".* How could they not be talking to LNG buyers for Total and /or Exxon Mozambique LNG projects. In the Q1 Q&A, mgmt was asked about Mozambique and didn't know any more than what you or I have read. Surely, they were speaking to Asian LNG buyers who had planned to get LNG supply from Total Mozambique or Exxon Rozuma Mozambique or both. Mgmt is asked "*wanted to just kind of touch on the color use talking about for these supply curve. And are you able to kind of provide any thoughts on the Mozambique and a deferral with the project of that size on 13 and TPA being deferred by we see you have you noticed any impact to the market has is there any impact for stage 3 with that capacity? Thanks*." Mgmt replies "*No. Look, I only know about the Mozambique delay with what I read as well as what you read that from total and an Exxon. And it's a sad situation and I hope everybody is safe and healthy that were there to experience that unrest but no I don't think it's, again it's a different business paradigm than what we offer. So, we offer a full value product, the customer doesn't have to invest in equity, customer doesn't have to worry about the E&P side of the business because, we've been able to both the by at our peak almost 7 Dee's a day of US NAT gas from almost a 100 different producers on 26 different pipelines and deliver it to our to facilities. So we take care of a lot of what the customer needs".*

<u>There are other LNG supply delays/interruptions beyond Mozambique.</u> There have been a number of other smaller LNG delay or existing supply interruptions that add to Asian LNG buyers feeling less secure about the reliability of mid to long term LNG supply. Here are just a few examples. (i) Total Papua LNG 0.74 bcf/d. On June 8, we tweeted [LINK] *"Timing update Papua #LNG project. $OSH June 8 update "2022 FEED, 2023 FID targeting 2027 first gas". $TOT May 5 update didn't forecast 1st gas date. Papua is 2 trains w/ total capacity 0.74 bcf/d."* We followed the tweet saying [LINK] *"Bigger #LNG supply gap being created >2025. Papua #LNG originally expected FID in 2020 so 1st LNG is 2 years delayed.*

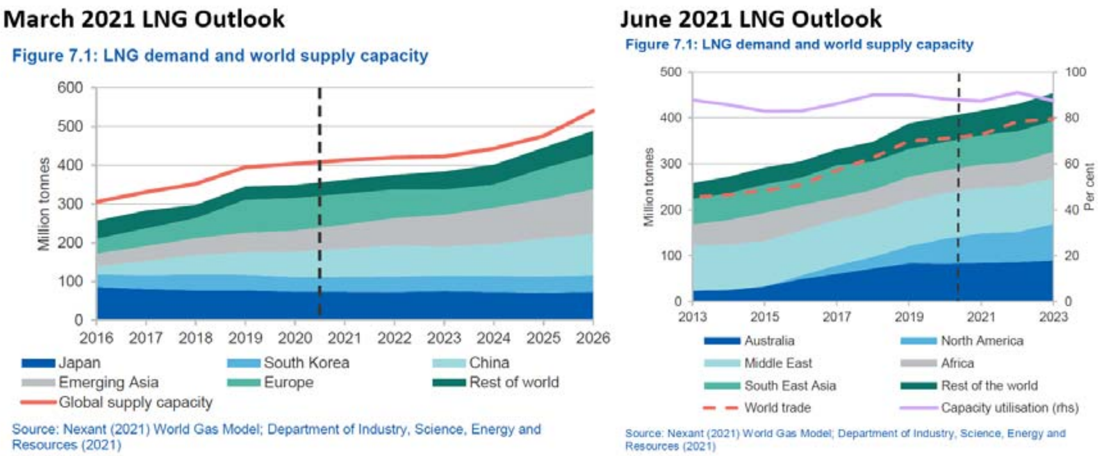
Common theme - new LNG supply is being delayed ie. [Total] Mozambique. Don't forget need capacity>demand due to normal maintenance, etc. Positive for LNG." (ii) Chevron's Gorgon. A big LNG story in H2/20 was the emergence of weld quality issues in the propane heat exchangers at Train 2, which required additional downtime for repair. Train 2 was shut on May 23 with an original restart of July 11, but the repairs to the weld quality issues meant it didn't restart until late Nov. The same issue was found in Train 1 but repairs were completed. However extended downtime for the trains led to lower LNG volumes. Gorgon produced ~2.3 bcf/d in 2019 but was down to 2.0 bcf/d in 2020. (iii) Equinor's Melkoeya 0.63 bcf/d shut down for 18 months due to a fire. A massive fire led to the Sept 28, 2020 shutdown of the 0.63 bcf/d Melkoeya LNG facility in Norway. On April 26, Equinor released "*Revised start-up date for Hammerfest LNG*" [LINK] with regard to the 0.63 bcf/d Melkoeya LNG facility. The original restart date was Oct 1, 2021 (ie. a 12 month shut down), but Equinor said "*Due to the comprehensive scope of work and Covid-19 restrictions, the revised estimated start-up date is set to 31 March 2022"*. When we read the release, it seemed like Equinor was almost setting the stage for another potential delay in the restart date. Equinor had two qualifiers to this March 31, 2022 restart date. Equinor said "*there is still some uncertainty related to the scope of the work*" and "*Operational measures to handle the Covid-19 situation have affected the follow-up progress after the fire. The project for planning and carrying out repairs of the Hammerfest LNG plant must always comply with applicable guidelines for handling the infection situation in society. The project has already introduced several measures that allow us to have fewer workers on site at the same time than previously expected. There is still uncertainty related to how the Covid-19 development will impact the project progress."*

<u>Cheniere stopped the game playing the game on June 30</u>. Our July 4, 2021 Energy Tidbits memo noted that it looks like Cheniere has stopped playing stupid with respect to the strengthening LNG market in 2021. We can't believe they thought they were fooling anyone, especially their competitors. Bu that week, they came out talking about how commercial discussions have picked up in 2021 and it's boosted their hope for a Texas (Corpus Christi) LNG expansion. On Wednesday, Platts reported "*Pickup in commercial talks boosts Cheniere's hopes on mid-scale LNG project*" [LINK] Platts wrote "*Cheniere Energy expects to make a "substantial dent" by the end of 2022 in building sufficient buyer support for a proposed mid-scale expansion at the site of its Texas liquefaction facility, Chief Commercial Officer Anatol Feygin said June 30 in an interview." " As a result, he said, " The commercial engagement, I think it is very fair to say, has really picked up steam, and we are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Platts also reported that Cheniere noted this has been a tightening market all year (ie would have been known by the May 4 Q1 call). Platts wrote "*We obviously find ourselves at the beginning of this year and throughout in a very tight market where prices today into Asia and into Europe are at levels that we frankly haven't seen in a decade-plus," Feygin said. "We've surpassed the economics that the industry saw post the Fukushima tragedy in March 2011, and that's happened in the shoulder period."* It's a public stance as to a more bullish LNG outlook

<u>But we still see major LNG suppliers like Australia hinting but not outright saying that LNG supply gap is coming sooner.</u> We have to believe Australia will be unveiling a sooner LNG supply gap in their September forecast. On June 28, we tweeted [LINK] on Australia's Resources and Energy Quarterly released on Monday [LINK] because there was a major change to their LNG outlook versus their March forecast. We tweeted "*#LNGSupplyGap. AU June fcast now sees #LNG mkt tighten post 2023 vs Mar fcast excess supply thru 2026. Why? $TOT Mozambique delays. See below SAF Apr 28 blog. Means brownfield LNG FID needed ie. like #LNGCanada Phase 2. #OOTT #NatGas"*. Australia no longer sees supply exceeding demand thru 2026. In their March forecast, Australia said "*Nonetheless, given the large scale expansion of global LNG capacity in recent years, demand is expected to remain short of total supply throughout the projection period."* Note this is thru 2026 ie. a LNG supply surplus thru 2026. But on June 28, Australia changed that LNG outlook and now says the LNG market may tighten beyond 2023. Interestingly, the June forecast only goes to 2023 and not to 2026 as in March. Hmmm! On Monday, they said "*Given the large scale expansion of global LNG capacity in recent years, import demand is expected to remain short of export capacity throughout the outlook period. Beyond 2023, the global LNG market may tighten, due to the April 2021 decision to indefinitely suspend the Mozambique LNG project, in response to rising security issues. This project has an annual nameplate capacity of 13 million tonnes, and was previously expected to start exporting LNG in 2024*." 13 million tonnes is 1.7 bcf/d so they are only referring to Total Mozambique LNG Phase 1. So no surprise the change is Mozambique LNG driven but we have to believe the reason why they cut their forecast off this time at 2023 is that they are looking at trying to figure out what to forecast beyond 2023 in addition to Total Phase 1. And, importantly, we believe they will be changing their LNG forecast for more than Mozambique ie. India

demand that we highlight later in the blog. They didn't say anything else specific on Mozambique but, surely they have to also be delaying the follow on Total Phase 2 of 1.3 bcf/d and Exxon Rozuma Phase 1 of 2.0 bcf/d.

Australia's LNG Outlook: March 2021 vs June 2021 Forecasts

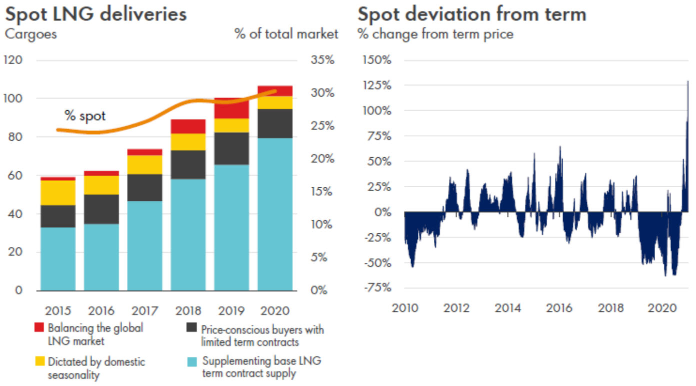


Source: Australia Resources and Energy Quarterly

<u>Clearly Asian LNG buyers did the math, saw the new LNG supply gap and were working the phones in March/April/May trying to lock up long term supply.</u> We wrote extensively on the Total Mozambique LNG situation before the April 26 force majeure as it was obvious that delays were coming to a project counted on for first LNG in 2024. Total had shut down Phase 1 development in December for 3 months due to the violence and security risks. It restarted development on Wed March 24, violence/attacks immediately resumed for 3 consecutive days, and then Total suspended development on Sat March 27. That's why no one should have been surprised by the April 26 force majeure. Asian LNG buyers were also seeing this and could easily do the same math we were doing and saw a bigger and sooner LNG supply gap. They were clearly working the phones with a new priority to lock up long term LNG supply. Major long term deals don't happen overnight, so it makes sense that we started to see these new Asian long term LNG deals start at the end of June.

<u>A big pivot from trying to renegotiate down long term LNG deals or being happy to let long term contracts expire and replace with spot/short term LNG deals</u>. This is a major pivot or abrupt turn on the Asian LNG buyers contracting strategy for the 2020s. There is the natural reduction of long term contracts as contracts reach their term. But with the weakness in LNG prices in 2019 and 2020, Asian LNG buyers weren't trying to extend long term contracts, rather, the push was to try to renegotiate down its long term LNG deals. The reason was clear, as spot prices for LNG were way less than long term contract prices. And this led to their LNG contracting strategy – move to increase the proportion of spot LNG deliveries out of total LNG deliveries. Shell's LNG Outlook 2021 was on Feb 25, 2021 and included the below graphs. The spot LNG price derivation from long term prices in 2019 and 2020 made sense for Asian LNG buyers to try to change their contract mix. Yesterday, Maeil Business News Korea reported on the new Qatar/Kogas long term LNG deal with its report "*Korea may face LNG supply cliff or pay hefty price after long-term supplies run out*" [LINK], which highlighted this very concept – Korea wasn't worried about trying to extend expiring long term LNG contracts. Maeil wrote "*Seoul in 2019 secured a long-term LNG supply contract with the U.S. for annual 15.8 million tons over a 15-year period. But even with the latest two LNG supply contracts, the Korean government needs extra 6 million tons or more of LNG supplies to keep up the current power pipeline. By 2024, Korea's long-term supply contracts for 9 million tons of LNG will expire - 4.92 million tons on contract with Qatar and 4.06 million tons from Oman, according to a government official who asked to be unnamed."*

Spot LNG deliveries and Spot deviation from term price



Source: Shell LNG Outlook 2021 on Feb 25, 2021

Asian LNG buyers moving to long term LNG deals provide financing capacity for brownfield LNG FIDs. We believe this abrupt change and return to long term LNG deals is even more important to LNG suppliers who want to FID new projects. The big LNG players like Shell can FID new LNG supply without new long term contracts as they can build into their supply options to fill their portfolio of LNG contracts. But that doesn't mean the big players don't want long term LNG supply deals, as having long term LNG contracts provide better financing capacity for any LNG supplier. It takes big capex for LNG supply and long term deals make the financing easier.

Four Asian buyer long term LNG deals in the last week. It was pretty hard to miss a busy week for reports of new Asian LNG buyer long term LNG deals. There were two deals from Qatar Petroleum, one from Petronas and one from BP. The timing fits, it's about 3 months after Total Mozambique LNG problems became crystal clear. And as noted later, there are indicators that more Asian buyer LNG deals are coming.

> Petronas/CNOOC is 10 yr supply deal for 0.3 bcf/d. On July 7, we tweeted [LINK] on the confirmation of a big positive to Cdn natural gas with the Petronas announcement [LINK] of a new 10 year LNG supply deal for 0.3 bcf/d with China's CNOOC. The deal also has special significance to Canada. (i) Petronas said "*This long-term supply agreement also includes supply from LNG Canada when the facility commences its operations by middle of the decade*". This is a reminder of the big positive to Cdn natural gas in the next 3 to 4 years – the start up of LNG Canada Phase 1 is ~1.8 bcf/d capacity. This is natural gas that will no longer be moving south to the US or east to eastern Canada, instead it will be going to Asia. This will provide a benefit for all Western Canada natural gas. (ii) First ever AECO linked LNG deal. It's a pretty significant event for a long term Asia LNG deal to now have an AECO link. Petronas wrote "*The deal is for 2.2 million tonnes per annum (MTPA) for a 10-year period, indexed to a combination of the Brent and Alberta Energy Company (AECO) indices. The term deal between PETRONAS and CNOOC is valued at approximately USD 7 billion over ten years.*" 2.2 MTPA is 0.3 bcf/d. (iii) Reminds of LNG Canada's competitive advantage for low greenhouse gas emissions. Petronas said "*Once ready for operations, the LNG Canada project paves the way for PETRONAS to supply low greenhouse gas (GHG) emission LNG to the key demand markets in Asia.*"
>
> Qatar Petroleum/CPC (Taiwan) is 15 yr supply deal for 0.16 bcf/d. Pre Covid, Qatar was getting pressured to renegotiate lower its long term LNG contract prices. Now, it's signing a 15 year deal. On July 9, they entered in a new small long term LNG sales deal [LINK], a 15-yr LNG Sale and Purchase Agreement with CPC Corporation in Taiwan to supply it ~0.60 bcf/d of LNG. LNG deliveries are set to begin in January 2022. H.E. Minister for Energy Affairs & CEO of Qatar Petroleum Al-Kaabi said *"We are pleased to enter into this long term LNG SPA, which is another milestone in our relationship with CPC, which dates back to almost three decades. We look forward to commencing deliveries under this SPA and to continuing our supplies as a trusted and reliable global LNG provider."* The pricing was reported to be vs a basket of crudes.

BP/Guangzhou Gas, a 12-yr supply deal for 0.13 bcf/d. On July 9, there was a small long term LNG supply deal with BP and Guangzhou Gas (China). Argus reported [LINK] BP had signed a 12 year LNG supply deal with Guangzhou Gas (GG), a Chinese city's gas distributor, which starts in 2022. The contract prices are to be linked to an index of international crude prices. Although GG typically gets its LNG from the spot market, it used a tender in late April for ~0.13 bcf/d starting in 2022. BP's announcement looks to be for most of the tender, so it's a small deal. But it fit into the trend this week of seeing long term LNG supply deals to Asia. This was intended to secure deliveries to the firm's Xiaohudao import terminal which will become operational in August 2022.

Qatar/Korea Gas is a 20-yr deal to supply 0.25 bcf/d. On Monday, Reuters reported [LINK] "*South Korea's energy ministry said on Monday it had signed a 20-year liquefied natural gas (LNG) supply agreement with Qatar for the next 20 years starting in 2025. South Korea's state-run Korea Gas Corp (036460.KS) will buy 2 million tonnes of LNG annually from Qatar Petroleum".* There was no disclosure of pricing.

More Asian buyer long term LNG deals (ie. India) will be coming. There are going to be more Asian buyer long term LNG deals coming soon. Our July 11, 2021 Energy Tidbits highlighted how India's new petroleum minister Hardeep Singh Puri (appointed July 8) hit the ground running with what looks to be a priority to set the stage for more India long term LNG deals with Qatar. On July 10, we retweeted [LINK] "*New India Petroleum Minister hits ground running. What else w/ Qatar but #LNG. Must be #Puri setting stage for long term LNG supply deal(s). Fits sea change of buyers seeing #LNGSupplyGap (see SAF Apr 28 blog http://safgroup.ca) & wanting to tie up LNG supply. #OOTT".* It's hard to see any other conclusion after seeing what we call a sea change in LNG buyer mentality with a number of long term LNG deals this week. Puri tweeted [LINK] "*Discussed ways of further strengthening mutual cooperation between our two countries in the hydrocarbon sector during a warm courtesy call with Qatar's Minister of State for Energy Affairs who is also the President & CEO of @qatarpetroleum HE Saad Sherida Al-Kaabi".* As noted above, we believe there is a sea change in LNG markets that was driven by the delay in 5 bcf/d of LNG supply from Mozambique (Total Phase 1 & Phase 2, and Exxon Rozuma Phase 1) that was counted on all LNG supply projections for the 2020s. Puri's tweet seems to be him setting the stage for India long term LNG supply deals with Qatar.

Supermajors are aggressively competing to commit 30+ year capital to Qatar's LNG expansion despite stated goal to reduce fossil fuels production. It's not just Asian LNG buyers who are now once again committing long term capital to securing LNG supply, it's also supermajors all bidding to be able to commit big capex to part of Qatar Petroleum's 4.3 bcf/d LNG expansion. Qatar Petroleum received a lot of headlines following the their June 23 announcement on its LNG expansion [LINK] on how they received bids for double the equity being offered. And there were multiple reports that these are on much tougher terms for Qatar's partners. Qatar Petroleum CEO Saad Sherida Al-Kaabi specifically noted that, among the bidders, were Shell, Total and Exxon. Shell and Total have two of the most ambitious plans to reduce fossil fuels production in the 2020's, yet are competing to allocate long term capital to increase fossil fuels production. And Shell and Total are also two of the global LNG supply leaders. It has to be because they are seeing a bigger and sooner LNG supply gap.

Remember Qatar's has a massive expansion but India alone needs 3x the Qatar expansion LNG capacity. In addition to the competition to be Qatar Petroleum's partners, we remind that, while this is a massive 4.3 bcf/d LNG expansion, India alone sees its LNG import growing by ~13 bcf/d to 2030. The Qatar announcement reminded they see a LNG supply gap and continued high LNG prices. We had a 3 part tweet. (i) First, we highlighted [LINK] "*1/3. #LNGSupplyGap coming. big support for @qatarpetroleum expansion to add 4.3 bcf/d LNG. but also say "there is a lack of investments that could cause a significant shortage in gas between 2025-2030" #NatGas #LNG".* This is after QPC accounts for their big LNG expansion. The QPC release said "*However, His Excellency Al-Kaabi voiced concern that during the global discussion on energy transition, there is a lack of investment in oil and gas projects, which could drive energy prices higher by stating that "while gas and LNG are important for the energy transition, there is a lack of investments that could cause a significant shortage in gas between 2025-2030, which in turn could cause a spike in the gas market."* (ii) Second, this is a big 4.3 bcf/d expansion, but India alone has 3x the increase in LNG import demand. We tweeted [LINK] "*2/3. Adding 4.3 bcf/d is big, but dwarfed by items like India. #Petronet gave 1st specific forecast for what it means if #NatGas is to be 15%*

of energy mix by 2030 - India will need to increase #LNG imports by ~13 bcf/d. See SAF Group June 20 Energy Tidbits memo." (iii) Third, Qatar's supply gap warning is driven by the lack of investments in LNG supply. We agree, but note that the lack of investment is in great part due to the delays in both projects under construction and in FIDs that were supposed to be done in 2019. We tweeted [LINK] "3*/3. #LNGSupplyGap is delay driven. $TOT Mozambique Phase 1 delay has chain effect, backs up 5 bcf/d. See SAF Group Apr 28 blog Multiple Brownfield LNG FIDs Now Needed To Fill New #LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2? #NatGas*."

Seems like many missed India's first specific LNG forecast to 2030. Our June 20, 2021 Energy Tidbits memo highlighted the first India forecast that we have seen to estimate the required growth in natural gas consumption and LNG imports if India is to meet its target for natural gas to be 15% of its energy mix by 2030. India will need to increase LNG imports by ~13 bcf/d or 3 times the size of the Qatar LNG expansion. Our June 6, 2021 Energy Tidbits noted the June 4 tweet from India's Energy Minister Dharmendra Pradhan [LINK] reinforcing the 15% goal "*We are rapidly deploying natural gas in our energy mix with the aim to increase the share of natural gas from the current 6% to 15% by 2030."* But last week, Petronet CEO AK Singh gave a specific forecast. Reuters report "*LNG's share of Indian gas demand to rise to 70% by 2030: Petronet CEO"* [LINK] included Petronet's forecast if India is to hit its target for natural gas to be 15% of energy mix by 2030. Singh forecasts India's natural gas consumption would increase from current 5.5 bcf/d to 22.6 bcf/d in 2030. And LNG shares would increase from 50% to 70% of natural gas consumption ie. an increase in LNG imports of ~13 bcf/d from just under 3 bcf/d to 15.8 bcf/d in 2030. Singh did not specifically note his assumption for India's natural gas production, but we can back into the assumption that India natural gas production grows from just under 3 bcf/d to 6.8 bcf/d. It was good to finally see India come out with a specific forecast for 2030 natural gas consumption and LNG imports if India is to get natural gas to 15% of its energy mix in 2030. Petronet's Singh forecasts India natural gas consumption to increase from 5.5 bcf/d to 22.6 bcf/d in 2030. This forecast is pretty close to our forecast in our Oct 23, 2019 blog "*Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030*". Here part of what we wrote in Oct 2019. "*It's taken a year longer than we expected, but we are finally getting visibility that India is taking significant steps towards India's goal to have natural gas be 15% of its energy mix by 2030. On Wednesday, we posted a SAF blog [LINK] "Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030".* Our 2019 blog estimate was for India natural gas demand to be 24.0 bcf/d in 2030 (vs Singh's 22.6 bcf/d) and for LNG import growth of +18.4 bcf/d to 2030 (vs Singh's +13 bcf/d). The difference in LNG would be due to our Oct 2019 forecast higher natural gas consumption by 1.4 bcf/d plus Singh forecasting India natural gas production +4 bcf/d to 2030. Note India production peaked at 4.6 bcf/d in 2010.

Bigger, nearer LNG supply gap + Asian buyers moving to long term LNG deals = LNG players forced to at least look at what brownfield LNG projects they could advance and move to FID. All we have seen since our April 28 blog is more validation of the bigger, nearer LNG supply gap. And now market participants (Asian LNG buyers) are reacting to the new data by locking up long term supply. Cheniere noted how the pickup in commercial engagement means they "*are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Cheniere can't be the only LNG supplier having new commercial discussions. It's why we believe the Mozambique delays + Asian LNG buyers moving to long term deals will effectively force major LNG players to look to see if there are brownfield LNG projects they should look to advance. Prior to March/April, no one would think Shell or other major LNG players would be considering any new LNG FIDs in 2021. Covid forced all the big companies into capital reduction mode and debt reduction mode. But Brent oil is now solidly over $70, and LNG prices are over $13 this summer and the world's economic and oil and gas demand outlook are increasing with vaccinations. And we are starting to see companies move to increasing capex with the higher cash flows. The theme in Q3 reporting is going to be record or near record oil and gas cash flows, reduced debt levels and increasing returns to shareholders. And unless new mutations prevent vaccinations from returning the world to normal, we suspect that major LNG players, like other oil and gas companies, will be looking to increase capex as they approve 2022 budgets. The outlook for the future has changed dramatically in the last 8 months. The question facing major LNG players like Shell is should they look to FID new LNG brownfield projects in the face of an increasing LNG supply gap that is going to hit faster and harder and Asian LNG buyers prepared to do long term deals. We expect these decisions to be looked at before the end of 2021 for 2022 capex budget/releases. One wildcard that could force these decisions sooner is the already stressed out global supply chain. We have to believe that discussion there will be pressure for more Asian LNG buyer long term deals sooner than later.

<u>For Canada, does the increasing LNG supply gap provide the opportunity to at least consider a LNG Canada Phase 2 FID over the next 6 months?</u> Our view on Shell and other LNG players is unchanged since our April 28 blog. Shell is no different than any other major LNG supplier in always knowing the market and that the oil and gas outlook is much stronger than 9 months ago. Even 3 months post our April 28 blog, we haven't heard any significant talks on how major LNG players will be looking at FID for new brownfield LNG projects. We don't have any inside contacts at Shell or LNG Canada, but that is no different than when we looked at the LNG markets in September 2017 and saw the potential for Shell to FID LNG Canada in 2018. We posted a September 20, 2017 blog *"China's Plan To Increase Natural Gas To 10% Of Its Energy Mix Is A Global Game Changer Including For BC LNG*" [LINK]. Last time, it was a demand driven supply gap, this time, it's a supply driven supply gap. We have to believe any major LNG player, including Shell, will be at least looking at their brownfield LNG project list and seeing if they should look to advance FID later in 2021. Shell has LNG Canada Phase 2, which would add 2 additional trains or approx. 1.8 bcf/d. And an advantage to an FID would be that Shell would be able to commit to its existing contractors and fabricators for a continuous construction cycle following on LNG Canada Phase 1 ie. to help keep a lid on capital costs. We believe maintaining a continuous construction cycle is even more important given the stressed global supply chain. No one is talking about the need for these new brownfield LNG projects, but, unless some major change in views happen, we believe its inevitable that these brownfield LNG FID internal discussions will be happening in H2/21. Especially since the oil and gas price outlook is much stronger than it was in the fall and companies will be looking to increase capex in 2022 budgets.

<u>A LNG Canada Phase 2 would be a big plus to Cdn natural gas.</u> LNG Canada Phase 1 is a material natural gas development as its 1.8 bcf/d capacity represents approx. 20 to 25% of Cdn gas export volumes to the US. The EIA data shows US pipeline imports of Cdn natural gas as 6.83 bcf/d in 2020, 7.36 bcf/d in 2019, 7.70 bcf/d in 2018, 8.89 bcf/d in 2017, 7.97 bcf/d in 2016, 7.19 bcf/d in 2015 and 7.22 bcf/d in 2014. A LNG Canada Phase 2 FID would be a huge plus for Cdn natural gas. It would allow another ~1.8 bcf/d of Cdn natural gas to be priced against pricing points other than Henry Hub. And it would provide demand offset versus Trudeau if he moves to make electricity "emissions free" and not his prior "net zero emissions". Mozambique has been a game changer to LNG outlook creating a bigger and sooner LNG supply gap. And with a stronger tone to oil and natural gas prices in 2021, the LNG supply gap will at least provide the opportunity for Shell to consider FID for its brownfield LNG Canada Phase 2 and provide big support to Cdn natural gas for the back half of the 2020s. And perhaps if LNG Canada is exporting 3.6 bcf/d from two phases, it could help flip Cdn natural gas to a premium vs US natural gas especially if Biden is successful in reducing US domestic natural gas consumption for electricity. The next six months will be very interesting to watch for LNG markets and Cdn natural gas valuations. Imagine the future value of Cdn natural gas is there was visibility for 3.6 bcf/d of Western Canada natural gas to be exported to Asia.

Peak Winter Demand to Test China's Power Supply Security
2023-10-30 05:05:42.988 GMT

By Bloomberg News
(Bloomberg) -- A sharper surge in demand for peak-load capacity is expected this winter that will test China's supply security, the National Energy Administration said at a briefing on Monday.
* Capacity required to meet peak winter power demand could be 140 gigawatt-hours higher than last year, said Zhang Xing, NEA spokesman
* Supply shortage expected in hydropower-reliant Yunnan province and western Inner Mongolia this winter
** Some other regions also face supply pressure
* NEA will urge more coal supply to Yunnan, and extra gas supply to Guangdong and Hainan
* NEA pledges to make all efforts to meet foreseeable supply gaps
** To push new coal power plants to start operations on time
** To ask new LNG terminals at northern shipping gateways to ensure enough winter gas supply to households
* China's investment in key energy projects jumped 21% y/y in first eight months of 2023 to 1.5 trillion yuan, with 40% going to non-fossil fuels
* New renewable power installations surged 93% y/y in first nine months, surpassing thermal power
** Renewables accounted for nearly one-third of total electricity output

To contact Bloomberg News staff for this story:
John Liu in Beijing at jliu42@bloomberg.net;
Kathy Chen in Beijing at qchen216@bloomberg.net
To contact the editors responsible for this story:
David Stringer at dstringer3@bloomberg.net
Jason Rogers

https://home.treasury.gov/news/press-releases/jy1822

In Response to Electoral Roadmap, Treasury Issues New Venezuela General Licenses

October 18, 2023

WASHINGTON – In response to the signing of an electoral roadmap agreement between Venezuela's Unitary Platform and representatives of Maduro, and in support of the Venezuelan people, the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) today issued 4 General Licenses suspending select sanctions.

Under Secretary of the Treasury for Terrorism and Financial Intelligence Brian E. Nelson issued the following statement on the General Licenses:

"The United States welcomes the signing of an electoral roadmap agreement between the Unitary Platform and Maduro representatives. Consistent with U.S. sanctions policy, in response to these democratic developments, the U.S. Department of the Treasury has issued General Licenses authorizing transactions involving Venezuela's oil and gas sector and gold sector, as well as removing the ban on secondary trading.

Treasury is prepared to amend or revoke authorizations at any time, should representatives of Maduro fail to follow through on their commitments. All other restrictions imposed by the United States on Venezuela remain in place, and we will continue to hold bad actors accountable. We stand with the Venezuelan people and support Venezuelan democracy."

Treasury today:

- Issued a six-month general license temporarily authorizing transactions involving the oil and gas sector in Venezuela. The license will be renewed only if Venezuela meets its commitments under the electoral roadmap as well as other commitments with respect to those who are wrongfully detained.
- Issued a second general license authorizing dealings with Minerven – the Venezuelan state-owned gold mining company – which Treasury assesses would have the effect of reducing black-market trading in gold.
- Amended two relevant licenses to remove the secondary trading ban on certain Venezuelan sovereign bonds and PdVSA debt and equity. The ban on trading in the primary Venezuelan bond market remains in place. Treasury assesses that this, too, would have the positive effect of displacing nefarious players in this market, and with negligible financial benefit to the Venezuelan regime.

OFAC has also provided several Frequently Asked Questions (FAQs), available here.

October 18, 2023

Frequently Asked Questions Related to the Suspension of Certain U.S. Sanctions with Respect to Venezuela on October 18, 2023

On October 18, 2023, the United States welcomed the announcement of a political agreement between representatives of Maduro and the Unitary Platform, as part of the longstanding policy to support the peaceful restoration of democracy, competitive elections, and respect for the rights and freedoms of the Venezuelan people. In line with this policy, and in recognition of the concrete steps taken, the United States is authorizing certain transactions that would otherwise be prohibited pursuant to the Venezuela sanctions program. The U.S. government retains the authority to rescind authorizations should the representatives of Maduro fail to follow through on their commitments, and all other sanctions prohibitions imposed by the United States with respect to Venezuela, including on the Government of Venezuela, remain in place.

1. What transactions did the United States government authorize in response to the political agreement of October 17, 2023 between the Unitary Platform and representatives of Maduro?

On October 18, the U.S. government suspended certain sanctions measures on Venezuela's oil and gas sector operations; the gold sector of the Venezuelan economy; and U.S. person purchases in the secondary market of certain Venezuela sovereign bonds and equity. Specifically, OFAC issued:

- Venezuela General License (GL) 44, temporarily authorizing all transactions that are related to oil and gas sector operations in Venezuela, including authorizing ordinarily incident and necessary financial transactions with certain blocked Venezuelan banks related to the oil and gas sector;

- Venezuela GL 43, authorizing certain transactions involvingh CVG Compania General de Mineria de Venezuela CA (Minerven), the Venezuelan state-owned mining company designated pursuant to Executive Order (E.O.) 13850, and guidance that the U.S. government does not intend to sanction any person solely for operating in the gold sector of the Venezuelan economy;

- Venezuela GL 3I and GL 9H, removing the secondary market trading bans on purchases of certain Venezuelan sovereign bonds and pre-2017 bonds or equity issued by Petróleos de Venezuela S.A. (PdVSA).

The U.S. government has suspended these sanctions measures in response to recent concrete steps toward a democratic solution in Venezuela. However, as with any general or specific license, the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) is prepared to revoke these authorizations, if appropriate, to support U.S. foreign policy and national security priorities. For more information, please see herein FAQs 2 through 6, and updated or new FAQs 661, 662, and 1136 on OFAC's website.

Issued on October 18, 2023

2. What does General License (GL) 44, "Authorizing Transactions Related to Oil or Gas Sector Operations in Venezuela" do?

GL 44 temporarily authorizes all transactions prohibited by the Venezuela Sanctions Regulations, 31 CFR part 591 (the VSR), related to oil and gas sector operations in Venezuela, including transactions with PdVSA, subject to certain conditions. The authorization in GL 44 suspends Venezuela-related sanctions applicable to most oil and gas sector operations in Venezuela, including the sale of oil and gas from Venezuela to the United States and other jurisdictions, as well as the payment of taxes, royalties, costs, fees, dividends, and profits related to oil and gas sector operations or transactions involving PdVSA. To provide added clarity, GL 44 provides a non-exhaustive list of transactions covered by the authorization, including: (1) the production, lifting, sale, and exportation of oil or gas from Venezuela, and provision of related goods and services; (2) the payment of invoices for goods or services related to oil or gas sector operations in Venezuela; (3) new investment in oil or gas sector operations in Venezuela; and (4) the delivery of oil and gas from Venezuela to creditors of the Government of Venezuela, including creditors of PdVSA entities, for the purposes of debt repayment.

While GL 44 provides broad relief to oil and gas sector operations in Venezuela, several key prohibitions remain in place.

- ***Designated financial institutions***. Paragraph (b)(1) provides that GL 44 does not authorize any transactions involving any financial institution blocked pursuant to E.O. 13850 other than Banco Central de Venezuela or Banco de Venezuela SA Banco Universal.

- ***Russia-related operations***. Paragraph (b)(2) provides that GL 44 does not authorize the provision of goods or services to, or new investment in, an entity located in Venezuela that is owned or controlled by, or a joint venture with, an entity located in the Russian Federation. Paragraph (b)(3) provides that GL 44 does not authorize any transactions related to new investment in oil or gas sector operations in Venezuela by a person located in the Russian Federation or any entity owned or controlled by a person located in the Russian Federation. See FAQ 1058 for more information.

- ***Certain financial restrictions in E.O. 13808***. Paragraph (b)(4) prohibits any transactions prohibited by subsections 1(a)(i) – (iii) or 1(b) of E.O. 13808, other than the transactions described in GL 44 paragraphs (a)(2) (payment of invoices for goods or services related to oil or gas sector operations in Venezuela) and (a)(4) (delivery of oil and gas for the purpose of debt repayment to creditors). Accordingly, new debt transactions, such as the provision of loans to PdVSA, that are not for the payment of invoices or repayment of debt through delivery of oil or gas, are not authorized by GL 44. See FAQ 533 for a definition of "new debt" under E.O. 13808 and FAQ 511 for examples of debt and equity.

- ***Transactions prohibited by E.O. 13827 and E.O. 13835***. Paragraph (b)(5) provides that GL 44 does not authorize any transactions prohibited by E.O. 13827 (relating to certain virtual assets issued by, for, or on behalf of the Government of Venezuela) or E.O. 13835 (relating to debt that is owed to the Government of Venezuela, as well as certain transactions involving any equity interest in any entity in which the Government of Venezuela has a 50 percent or greater ownership interest). See FAQs 564, 565, and 566 for more information on E.O. 13827 and FAQs 511, 595, and 596 for more information on E.O. 13835.

- ***Blocked property.*** Paragraph (b)(6) provides that GL 44 does not authorize the unblocking of any property blocked pursuant to the VSR. Accordingly, all property blocked pursuant to the VSR in the United States, or in the possession or control of a U.S. person, as of October 18, 2023, will remain blocked unless separately authorized.

- ***Blocked persons.*** Transactions involving any person blocked pursuant to a sanctions authority other than the VSR are not authorized pursuant to GL 44.

As with any general or specific license, OFAC is prepared to revoke this authorization if appropriate to support U.S. foreign policy and national security priorities.

Issued on October 18, 2023

3. When does General License (GL) 44 expire? Does the U.S. government intend to renew this GL?

GL 44 authorizes transactions through 12:01 a.m. eastern daylight time, April 18, 2024. The U.S. government intends to renew GL 44 only if the representatives of Maduro follow through with their commitments and take continued concrete steps toward a democratic election by the end of 2024.

Issued on October 18, 2023

4. Do the Venezuela-related sanctions suspended on October 18, 2023 affect the U.S. government's posture on litigation brought by creditors seeking to attach assets of the Government of Venezuela in the United States?

No. Please see FAQs 808, 1123, and 1124.

Issued on October 18, 2023

5. Executive Order (E.O.) 13850 of November 1, 2018, "Blocking Property of Additional Persons Contributing to the Situation in Venezuela," authorizes the imposition of sanctions on persons operating in Venezuela's gold sector. For purposes of this E.O. and in light of the announcements on October 18, 2023, how will OFAC target those who "operate in the gold sector of the Venezuelan economy or in any other sector of the Venezuelan economy as may be determined by the Secretary of the Treasury, in consultation with the Secretary of State"?

Given recent positive steps taken towards competitive elections in Venezuela, OFAC does not intend to target any person solely for operating in the gold sector of the Venezuelan economy. This policy is contingent on continued concrete steps toward a democratic solution in Venezuela.

OFAC also issued General License (GL) 43 on October 18, 2023, which authorizes all transactions involving CVG Compania General de Mineria de Venezuela CA (Minerven)—the only entity designated by OFAC for operating in the gold sector of the Venezuelan economy—that are prohibited by the Venezuela Sanctions Regulations, 31 CFR part 591, subject to the limitations described in GL 43. As with any general or specific license, OFAC is prepared to revoke this authorization if appropriate to support U.S. foreign policy and national security priorities, including if the representatives of Maduro fail to follow through with their commitments. This FAQ supersedes FAQ 629.

Issued on October 18, 2023

https://www.argusmedia.com/en/news/2403155-high-hurdles-to-grow-chevrons-venezuela-oil-output

High hurdles to grow Chevron's Venezuela oil output

Published date: 21 December 2022

An internal Chevron plan to increase Venezuelan oil production to 200,000 b/d by mid-2023 relies on efforts to rehabilitate some 18,000 wells in various states of disrepair in the country's once-prolific Occidente region.

According to a report from Venezuela state-owned PdV obtained by *Argus*, about 7pc of existing wells in Occidente are operating. The 1,400 or so "Category 1" wells are producing oil, but many at declining rates.

About 8,700 wells fall into Category 2, which includes non-operating wells that may just need minor work to become operational. These wells may need around $500,000 each in new investment to be viable, according to sources familiar with the field.

In Category 3 are more than 7,900 wells that need between $5mn-$6mn of investment each to be commercially viable.

Hundreds of wells in the PdV report are reportedly shut down just for a lack of reliable electricity, which plagues many parts of the country. Many more have been stripped bare of any surface equipment by thieves.

Production in Occidente has declined from 150,000 b/d earlier this year to around 90,000 b/d in November.

Much of Chevron's work in Venezuela has been curtailed in recent years by US sanctions. The US eased some sanctions in late November when the government agreed to resume talks with the opposition about new elections, which will allow Chevron to sell crude from its Venezuela joint ventures.

Chevron was expected to send its first cargo of Venezuelan crude to a US Gulf coast refiner since 2018 by the end of December, but it is not yet clear if that will happen. Government officials are anxious to send a symbolic message with a cargo before the new year, while Chevron appears less concerned with rushing any shipments.

Chevron plans to increase its global spending in 2023 to $17bn, up from around $15bn in 2022, but has not disclosed any specific plans for Venezuela.

By Carlos Camacho

https://www.wsj.com/articles/chevron-waiting-it-out-in-venezuela-tells-u-s-now-is-the-time-to-pump-oil-11647959248?mod=newsviewer_click&adobe_mc=MCMID%3D43904269652561322512265019543051439235%7CMCORGID%3DCB68E4BA55144CAA0A4C98A5%2540AdobeOrg%7CTS%3D1647963540

Chevron, Waiting It Out in Venezuela, Tells U.S. Now Is the Time to Pump Oil

An oil refinery in Venezuela, where the U.S. has banned American oil companies from operating since 2019. YURI CORTEZ/AFP/GETTY IMAGES

By Christopher M. Matthews and José de Córdoba
March 22, 2022 10:27 am ET

HOUSTON—For months, Biden administration officials snubbed top executives and lobbyists for Chevron Corp. who had pressed officials in Washington to ease sanctions so the company could boost production in Venezuela, where the U.S. has banned such activities since 2019.

Then Vladimir Putin invaded Ukraine.

Now the Biden administration is listening closely to Chevron, say people familiar with the conversations, which says it can help double Venezuela's 800,000 barrels-a-day production within months. That could replace the loss of roughly 700,000 barrels a day the U.S. was importing from Russia before it attacked Ukraine. And it could help lower gasoline prices—a major concern for the Biden administration in a tough election year.

"Chevron came in November, they pitched it around, but got laughed out of town," said Juan Cruz, a former National Security Council official in charge of the Western Hemisphere who has closely followed the Biden administration's policy toward Venezuela. "But what was really funny in November is a plan today."

Since the Russians invaded on Feb. 24 and Mr. Biden canceled Russian oil imports, Chevron Chief Executive Officer Mike Wirth has offered the company's help to Secretary of Energy Jennifer Granholm in shoring up U.S. energy supplies by ramping up production in Venezuela, according to people briefed on the talks. Chevron is the only major U.S. producer to retain assets in Venezuela following nationalizations by the Socialist government and, much later, U.S. sanctions.

Granting the San Ramon, California-based company and other U.S. producers permits to operate could boost Venezuelan production while keeping other sanctions in effect. Broadly easing sanctions on Venezuela faces stiff opposition in the U.S. over concerns it would prop up the country's autocratic regime. U.S. officials are divided over the issue, say people familiar with the situation.

Asked recently by CNN about the outreach to Venezuela and Saudi Arabia for more oil, Ms. Granholm, said, “I think Americans should see the administration calling right now for an increase in supply as something that helps them,” naming the benefit of reducing costs at the pump.

Shortly after Mr. Wirth talked to the energy secretary, three senior U.S. officials—Juan Gonzalez, the senior National Security Council official in charge of Latin America; James Story, the U.S. ambassador to Venezuela; and Roger D. Carstens, a special envoy—flew to Caracas on March 5 and met with President Nicolás Maduro and other top Venezuelan officials.

Another person who spoke with senior Venezuelan officials after the invasion was Ali Moshiri, a charismatic Iranian-American who had headed Chevron’s Latin America division and was considered a “dear friend” by the late Hugo Chávez, the founder of the political movement now led by Mr. Maduro, with whom Mr. Moshiri also has close a close relationship. Mr. Moshiri retired from Chevron in 2017 but now consults for the company in Venezuela, where he has deep ties with senior officials, say people familiar with the matter.

Many oil industry executives say that Mr. Moshiri was essential to Chevron’s controversial decision to stay in the country even as other Western oil companies exited after the Venezuelan government in 2007 nationalized billions of dollars of assets owned by ConocoPhillips, Exxon Mobil Corp. and others. He has also lobbied Biden officials to loosen sanctions on Venezuela, where Chevron has operated for nearly a century.

“You cannot ignore Venezuela,” Mr. Moshiri said in an interview last week. “Venezuela will always be part of our energy security.”

The White House declined to comment about Chevron’s possible role or its own talks in Venezuela. The Energy Department declined to comment.

People briefed on the talks say Mr. Moshiri has argued to U.S. officials that the U.S. can’t cede influence of Venezuelan energy to rivals like China and Russia, which have increased their activities in the country in recent years. He has also spoken with Venezuelan officials for months to try to win the release of Americans imprisoned in Venezuela, these people said.

A Chevron spokesman said Mr. Moshiri isn’t representing the company in negotiations with the U.S. or with Venezuelan officials. Mr. Moshiri declined to provide details about his contract with Chevron. After leaving Chevron, he founded a firm, Amos Global Energy, which seeks investment opportunities in Venezuela, people familiar with the matter said.

A few days after the March 5 meeting in Caracas with U.S. officials, the Maduro government freed two American captives, one of them an executive of Citgo, the U.S. refining subsidiary of state-run oil company Petróleos de Venezuela SA, or PdVSA. The government also agreed to restart negotiations in Mexico with representatives of Venezuela's opposition, who want officials to agree to free and fair presidential elections in 2024.

News of the meeting in Caracas, though, has caused a political backlash in Washington and in Florida, where exiled Venezuelans live and have forged links to the state's powerful and conservative Cuban American community.

"The democratic aspirations of the Venezuelan people, much like the resolve and courage of the people of Ukraine, are worth much more than a few thousand barrels of oil," New Jersey Sen. Robert Menendez, the Democratic chairman of the Senate Foreign Affairs Committee, wrote in a statement. Those sentiments were echoed by both Democratic and Republican lawmakers in Florida.

SHARE YOUR THOUGHTS

Should the U.S. ease sanctions on Venezuela to get more oil? Why or why not? Join the conversation below.

Venezuelan opposition leader Juan Guaidó, whom the U.S. recognizes as Venezuela's legitimate president, was told of the U.S.-Venezuela meeting after it had taken place. Mr. Guaidó wrote a letter to Mr. Biden, according to a person with knowledge of the matter, saying that lifting sanctions on Venezuela would do little to ease the world's crude supply shortages while rewarding Mr. Maduro, a Putin ally whose rule is blamed for leading six million Venezuelans to flee the country.

"Today, more than ever we should be firm and morally consistent," said Mr. Guaidó in a video press conference from Caracas last week. He said any lifting of sanctions on Venezuela or permission for Chevron to pump oil there should only come in exchange for democratic concessions by the regime.

Answering reporters' questions last week White House press secretary Jen Psaki said, "There is no dialogue between us and the regime." She said the administration would consider lifting sanctions on the basis of progress in talks between Mr. Maduro and the opposition.

Chevron officials still say the company could win a license permitting it, along with European oil companies such as Eni Spa and Repsol SA, to operate in Venezuela.

A refinery of state-owned Petróleos de Venezuela in El Palito. Venezuelan oil production has plummeted since the 1990s due to mismanagement.

PHOTO: MANAURE QUINTERO/BLOOMBERG NEWS

Venezuela claims to have the world's largest proven oil reserves. But years of mismanagement, corruption and nationalization of oil ventures led production to fall from 3.2 million barrels a day in the 1990s to a 10th of that in 2020. Since then, production has more than doubled as Venezuela turned to opaque foreign companies to boost production, say industry executives. Chevron's lobbyists assert that the recent production increases show that the U.S. sanctions aren't working as intended.

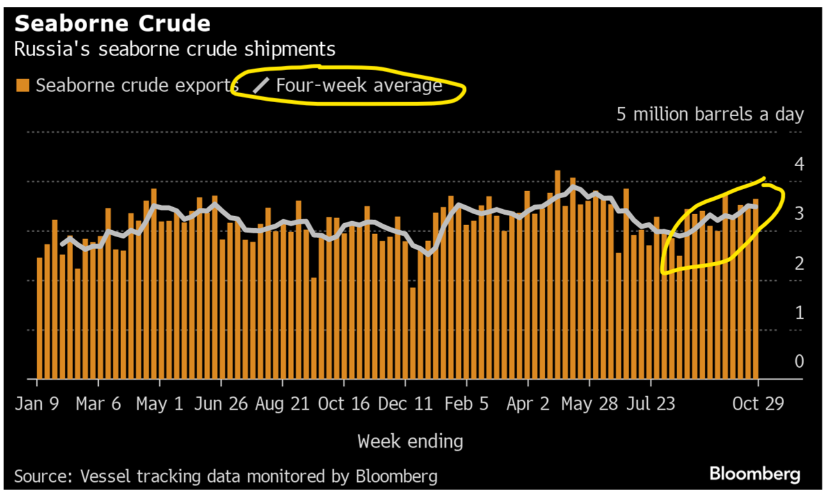
But though Chevron has told U.S. officials it could jack up production quickly, some oil analysts who closely track Venezuela doubt the company could deliver. Even in good times, Venezuela had never increased production anywhere near the level of recent optimistic projections, according to Francisco Monaldi, director of the Latin America Energy Program at Rice University's Baker Institute.
Chevron's perseverance in Venezuela has come as the company has tried to get Venezuela to pay money owed under production-sharing agreements. The company wrote down all of its assets there in 2020, taking a charge of $2.6 billion. Nonetheless, it stayed, receiving periodic licenses from the U.S. government to retain but not operate assets.

—Timothy Puko in Washington contributed to this article.

Write to Christopher M. Matthews at christopher.matthews@wsj.com and José de Córdoba at jose.decordoba@wsj.com

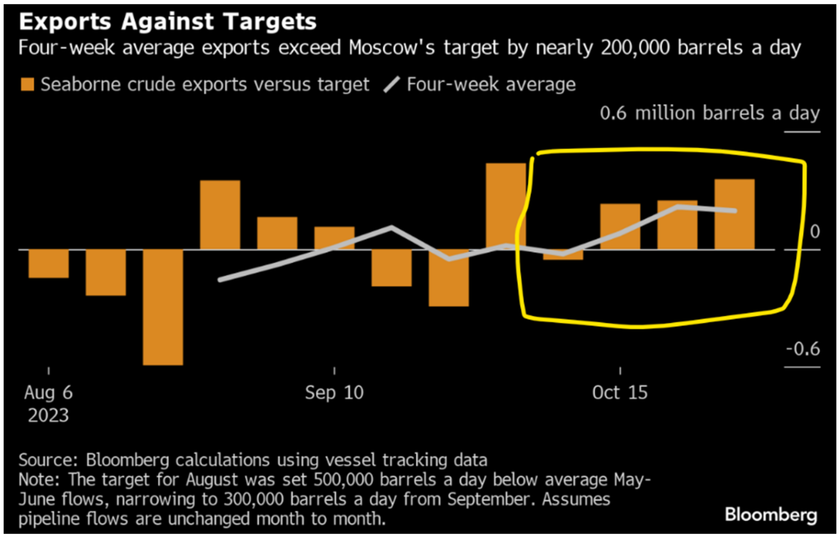
Russia's Oil Flows Overshoot Target Even as Demand Outlook Dims
2023-10-31 10:02:23.108 GMT

By Julian Lee
(Bloomberg) -- Russia's oil flows climbed for a third week, with shipments exceeding a target set as part of a pact with Saudi Arabia to keep barrels off the market and adding to supply even as the demand outlook weakens.
About 3.64 million barrels a day of crude was shipped from Russian ports in the week to Oct. 29, an increase of 110,000 barrels a day from the previous seven days, tanker-tracking data monitored by Bloomberg show. Despite that gain, the less volatile four-week average edged lower to 3.48 million barrels a day, down by about 20,000 barrels a day from the period to Oct. 22.
The weekly advance reflected a jump in shipments from Novorossiysk in the Black Sea, which was partly offset by a drop in the number of vessels leaving Russia's Baltic and Pacific ports.



Deputy Prime Minister Alexander Novak said in early August that Moscow would prolong export restrictions at a reduced level of 300,000 barrels a day below their May-June average until the end of the year. Bloomberg calculations indicate that shipments through ports should be running now at about 3.28 million barrels a day.

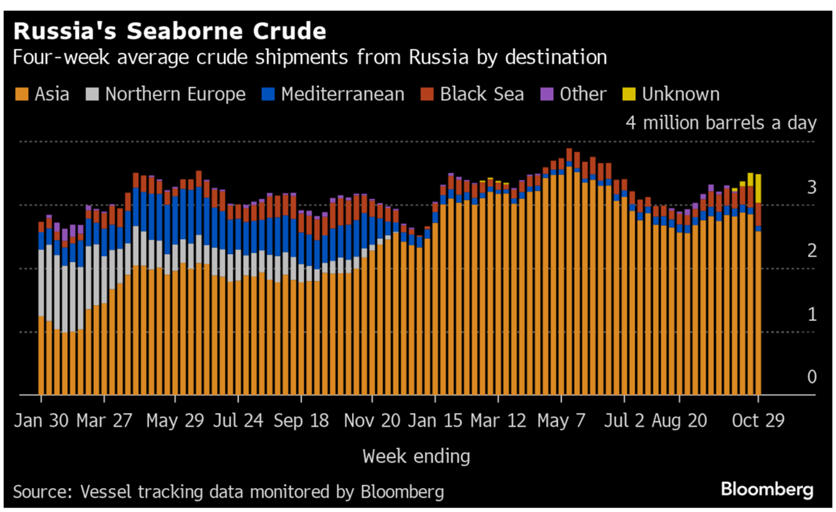
Weekly shipments exceeded Moscow's target by the most in four weeks, overshooting by about 360,000 barrels a day. Despite edging lower, four-week average volumes exceeded it by almost 200,000 barrels a day in the most recent period.



The increase in volumes raised the Kremlin's weekly revenues from oil export duties to a new high for the year, while the four-week average rose for a 13th straight week, setting a new high for the period since the start of January. Rising exports come even as Russia's oil refining rate climbed to a seven-week high last week, with runs up by 210,000 barrels a day in the seven days to Oct. 25 from the previous week. Refinery runs have improved as routine maintenance that's set to run through next month draws to an end. That boosted Russia's average daily processing during the Oct. 1-25 period to 5.31 million barrels a day, though that's still below the 5.38 million barrels a day for most of September.

Flows by Destination

Russia's seaborne crude flows edged lower in the four weeks to Oct. 29 to average 3.48 million barrels a day. That's down from 3.5 million barrels a day in the period to Oct. 22. Shipments remain about 105,000 barrels a day below the average seen during the surge in volumes between April and June.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that

transit Russia for export through Novorossiysk and the Baltic port of Ust-Luga and are not subject to European Union sanctions or a price cap.
The Kazakh barrels are blended with crude of Russian origin to create a uniform export grade. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

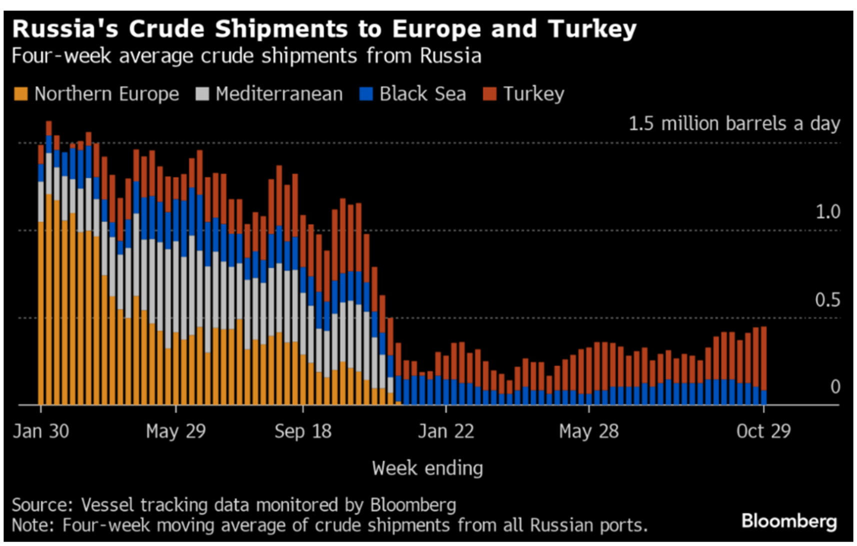
* Asia

Observed shipments to Russia's Asian customers, including those showing no final destination, edged lower to 3.03 million barrels a day in the four weeks to Oct. 29, from 3.06 million barrels a day in the period to Oct. 22. That's well below a peak of about 3.6 million barrels a day seen in May.
About 1.1 million barrels a day of crude was shipped to China in the four weeks to Oct. 29, but that figure may rise once the destinations become apparent for more than 23 million barrels of crude on tankers that have yet to signal their final port of call. Shipments to China are similar to the volume on ships heading to India, but China's seaborne imports are supplemented by about 800,000 barrels a day of crude delivered directly from Russia by pipeline.
Flows to India are rising, but remain well below peak levels seen earlier this year. Even if all of the cargoes on ships without an initial destination eventually end up in India, shipments to the country will be about 220,000 barrels a day, or 10%, down from their May high. Adding the "Unknown Asia" and "Other Unknown" volumes to the total for India gives a figure of 1.92 million barrels a day in the four weeks to Oct. 29. That's the most in 21 weeks, but down from a high of 2.15 million barrels a day in the period to May 21.
India's Bharat Petroleum is taking as much of Russia's Urals crude as it can, according to Finance Director Vetsa Ramakrishna Gupta, with Russian barrels accounting for as much as 45% of the company's total crude consumption.
The equivalent of about 384,000 barrels a day was on vessels signaling Port Said or Suez in Egypt, or are expected to be transferred from one ship to another off the South Korean port of Yeosu. Those voyages typically end at ports in India or China and show up in the chart below as "Unknown Asia" until a final destination becomes apparent.
The "Other Unknown" volumes, running at about 450,000 barrels a day in the four weeks to Oct. 29, are those on tankers showing no clear destination. Most of those cargoes originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others could be moved from one vessel to another, with most such transfers now taking place in the Mediterranean, off the coast of Greece.

Pakistan Refinery Ltd. has signed a long-term supply deal with Russia under which it will receive as much as 75,000 tons of crude a month, equivalent to about 18,000 barrels a day. The first cargo is due to arrive in December.

* Europe and Turkey

Russia's seaborne crude exports to European countries have collapsed since Moscow's troops invaded Ukraine in February 2022. A market that consumed about 1.5 million barrels a day of short-haul seaborne crude, coming from export terminals in the Baltic, Black Sea and Arctic has been lost almost completely, to be replaced by long-haul destinations in Asia that are much more costly and time-consuming to serve. These figures do not include shipments to Turkey.

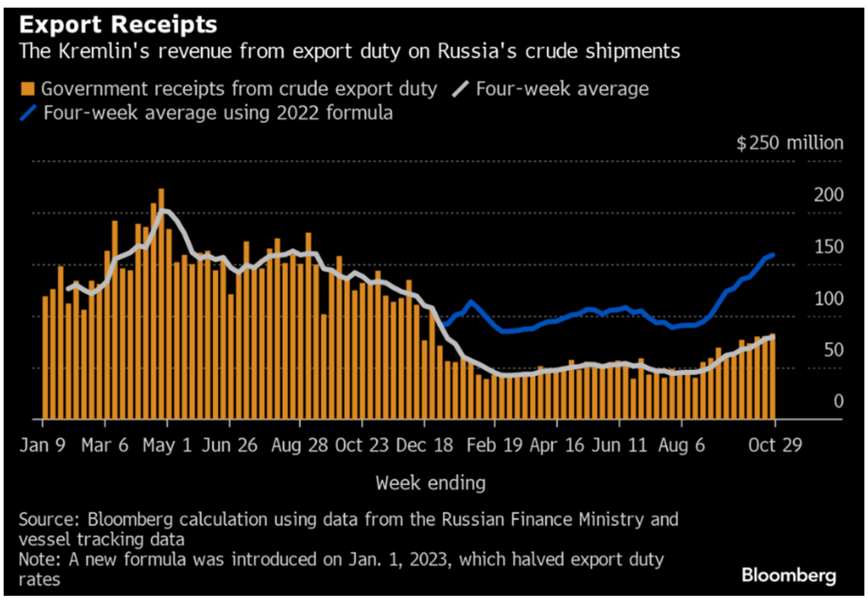


No Russian crude was shipped to northern European countries, or those in the Mediterranean in the four weeks to Oct. 29.
Flows to Bulgaria, now Russia's only European market for

crude, fell to a 20-week low of about 83,000 barrels a day. Exports to Turkey jumped to about 365,000 barrels a day in the four weeks to Oct. 29. That's the highest in 51 weeks and makes the country the third-biggest importer of seaborne crude from Russia. Flows had topped 425,000 barrels a day in October 2022, before falling sharply after a Group of Seven price cap came into effect in early December. The recent increase comes after Lukoil resumed deliveries to the Azerbaijani-owned Star refinery at Aliaga. Supplies are expected at about 100,000 barrels a day, equivalent to half of the refinery's capacity. Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by other information providers including Kpler and Vortexa Ltd.

Export Revenue

Inflows to the Kremlin's war chest from its crude-export duty rose to $83 million in the seven days to Oct. 29, while four-week average income jumped to $79.4 million. The four-week average set a new high for the period since the start of January. Rising oil prices and the rebound in flows are both contributing to the increase in receipts.

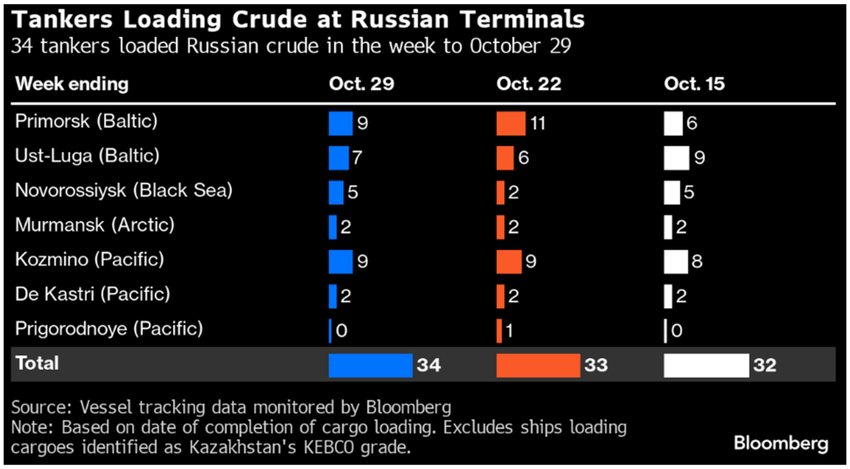


The duty rate for October has been set at $3.26 a barrel, based on an average Urals price of $77.03 during the calculation period between Aug. 15 and Sept. 14. That was $11.60 a barrel below Brent over the same period. October's duty rate sets a new high for the year. The rate for November has been set at $3.57 a barrel, based on an average Urals price of $83.35 during the calculation period between Sept. 15 and Oct. 14. That was about $7.70 a barrel below Brent over the same period. November's duty rate sets another new high for the year.

Origin-to-Location Flows

The following table shows the number of ships leaving each export terminal.

A total of 34 tankers loaded 25.5 million barrels of
Russian crude in the week to Oct. 29, vessel-tracking data and
port agent reports show. That's up by about 760,000 barrels from
the previous week.
A jump in shipments from Novorossiysk in the Black Sea was
partly offset by a drop in the number of vessels leaving
Russia's Baltic and Pacific ports.
Destinations are based on where vessels signal they are
heading at the time of writing, and some will almost certainly
change as voyages progress. All figures exclude cargoes
identified as Kazakhstan's KEBCO grade.



In addition, one cargo of KEBCO was loaded at Ust-Luga
during the week.NOTES
Note: This story forms part of a weekly series tracking
shipments of crude from Russian export terminals and the export
duty revenues earned from them by the Russian government. Weeks
run from Monday to Sunday. The next update will be onTuesday,
Nov. 7.
Note: All figures exclude cargoes owned by Kazakhstan's
KazTransOil JSC, which transit Russia and are shipped from
Novorossiysk and Ust-Luga as KEBCO grade crude.
If you are reading this story on the Bloomberg terminal,
click here for a link to a PDF file of four-week average flows
from Russia to key destinations.

--With assistance from Sherry Su.

To contact the author of this story:
Julian Lee in London at jlee1627@bloomberg.net
To contact the editor responsible for this story:
John Deane at jdeane3@bloomberg.net

To view this story in Bloomberg click here:
https://blinks.bloomberg.com/news/stories/S3E17ZDWRGG0

http://www.koreaherald.com/view.php?ud=20231102000529

JCS says N. Korea might have provided Russia with short-range ballistic missiles

By Yonhap

Published : Nov. 2, 2023 - 13:36

North Korea might have provided Russia with short-range ballistic missiles and portable anti-aircraft missiles in addition to artillery rounds for its war in Ukraine, a senior South Korean military official said Thursday.

The Joint Chiefs of Staff made the assessment amid concerns over increasing military cooperation between Pyongyang and Moscow following the rare summit between North Korean leader Kim Jong-un and Russian President Vladimir Putin in September.

Military officials estimated about 2,000 containers of military equipment and munitions were shipped from North Korea's northeastern port of Rajin to Vladivostok in Russia's Far East, which is sharply up from 1,000 containers revealed by the White House on Oct. 13 citing satellite imagery taken in September.

The volume is presumed to be capable of loading over 200,000 rounds of 122 mm artillery shells or over 1 million rounds of 152 mm shells, which are used by both countries.
North Korea may have also supplied other weapons to Russia, including T-series tank ammunition, anti-tank guided missiles, rocket launchers, rifles and machine guns and possibly short-range ballistic missiles.

"There have been indications of North Korea's supply of weapons to Russia since mid-2022, and the arms trade via maritime routes increased in August shortly before Kim Jong-un's visit to Russia," the senior official told reporters on background.

In return, Russia may consider providing technological support for North Korea's military satellite, nuclear weapons, as well as fighter jets and air defense systems, according to the official.

"North Korea is expected to initially receive food and fuel to secure the stability of the regime and prepare for the upcoming winter. (The two countries) are expected to additionally discuss military technology transfer, support for the modernization of conventional forces and joint training down the road," the official said.

The South Korean military said it has been closely monitoring the latest development of Pyongyang-Moscow military cooperation in coordination with the United States and vowed to bolster its military readiness against possibilities of the North's advancing weapons program. (Yonhap) https://www.wsj.com/world/europe/wars-push-up-demand-for-weapons-sparking-fears-of-shortages-57d664ad

Wars Push Up Demand for Weapons, Sparking Fears of Shortages

In U.S. and Europe, pressure is mounting to lift production as worries rise about fighting on new fronts

By Daniel Michaels Follow and Doug Cameron Follow

Oct. 29, 2023 8:30 am ET


An Israeli soldier adjusts the tip to an artillery shell near the border with Lebanon. PHOTO: JALAA MAREY/AGENCE FRANCE-PRESSE/GETTY IMAGES

ARLANDASTAD, Sweden—Western defense officials worry that with Israel going to war as the West battles Russia by proxy in Ukraine, there won't be enough artillery shells and other weapons to keep both allies in the fight.

The issue is concerning NATO planners even though Israel isn't a member of the alliance and few European countries supply it with military equipment.

But the North Atlantic Treaty Organization and its European members are deeply invested in supporting Ukraine against Russia's invasion, and the prospect of two hot wars potentially consuming arms and equipment from the same stockpiles or supply chains is starting to worry officials.

"Of course" there are concerns about competition for military resources because of limited production capacity, said Göran Mårtensson, director general of the Swedish Defense Materiel Administration, which handles procurement for the country's defense ministry. "There will be more need for that limited production capacity in Europe and the U.S."

Mårtensson spoke on the sidelines of the NATO Industry Forum, an occasional event assembling government officials, military brass and industry executives that this time drew more than 800 attendees. Sweden hosted the meeting as a candidate for NATO membership and hopes soon to become a full member.

Since Russia launched its large-scale invasion of Ukraine roughly 20 months ago, defense contractors across the West have geared up production, but output remains below the volumes of ammunition and equipment being spent on Ukraine's battlefields.

NATO members' defense industries lack sufficient spare capacity to react to crises like now, alliance Secretary-General Jens Stoltenberg told the forum. "We need more of that to ensure that we have the production when we need it."


Artillery shells are packed for shipping in Scranton, Pa. PHOTO: BRENDAN MCDERMID/REUTERS

Most companies are producing as much as they can within their existing production facilities and the next step would be new investments, said Esa Rautalinko, chief executive of Finnish armaments group Patria. Bringing new facilities online can take from two to five years, he said.

With demand increasing faster than production, prices of some supplies have soared. NATO-standard 155-millimeter artillery shells, one of the West's most basic armaments, had cost governments about $2,100 apiece before Russia's invasion of Ukraine last year, said Dutch Admiral Rob Bauer, Stoltenberg's top military adviser, at the NATO forum.

The price of those shells, which Bauer dubbed "one of the most coveted objects in the world right now," has increased fourfold, to about $8,400, he said.

Politicians have called on defense companies to expand capacity and accelerate output.

"If I were the industry, I would read the room and increase production," said Estonian Prime Minister Kaja Kallas, in Brussels.

Industry officials say they need assurances that demand won't drop at the cessation of hostilities, undercutting companies' investments, as has happened in the past.

"Both sides need to loosen the mutually destructive chokehold and stop waiting for the other to move first," Bauer said.

NATO Secretary-General Jens Stoltenberg, right, says defense industries need more spare capacity. PHOTO: JONATHAN NACKSTRAND/AGENCE FRANCE-PRESSE/GETTY IMAGES

The U.S. has begun moving in recent months by pumping billions of dollars into retooled factories to produce more rockets, missiles, shells and rocket motors. It has issued almost $25 billion in contracts to arm Ukraine and replenish U.S. stocks.

Bill LaPlante, the Defense Department's acquisition chief, has called in recent weeks for European countries to sign more contracts to encourage industry.

European governments have placed some orders, but not on the Pentagon’s scale. The European Union in the spring pledged to provide Ukraine with one million artillery shells within one year, but is behind on that target, Kallas said.

Sweden and three other Nordic countries earlier this month announced a rare multicountry order for 155mm shells for Kyiv, valued at roughly $54 million. At the prices NATO’s Bauer cited, that would deliver fewer than 7,000 rounds.

Mårtensson at the Swedish procurement agency, which led the order, said it could expand or add countries.

European governments’ call for industry to shoulder investment responsibility before signing contracts is misguided, Patria’s Rautalinko said. “We can’t do that without a vision of long-term demand—this isn’t retail,” he said.

Adding to uncertainty, he said, pressure from the Middle East conflict hasn’t yet filtered through to Europe’s defense-industry debates. Europeans might see the fight as more of an issue for Israel and the U.S., he said, but that would be a mistake.

“Everything is connected,” he said. “If Israel is helped out from the U.S. stockpiles, that’s taken away from something.”

Different armaments are being used in the two conflicts so far, but that could change if hostilities spread around Israel.

Military equipment on display at the General Dynamics booth at a trade show in Ottawa. PHOTO: DAVID KAWAI/BLOOMBERG NEWS

The U.S. is by far the largest supplier of military equipment and funding to Israel, though Germany is also a big provider, according to the Stockholm International Peace Research Institute.

Executives from Lockheed Martin , RTX, Boeing and others were at the NATO event, and combined have hundreds of employees in Israel. They are working on joint ventures such as Israel’s Iron Dome missile defense system.

General Dynamics, the biggest U.S. artillery shell producer, said it expects the Israeli conflict to boost demand already elevated by Ukraine.

“The biggest one to highlight, and it sticks out, is on the artillery side,” said Chief Financial Officer Jason Aiken of the recent $106 billion supplemental funding request from the White House, which includes further support for Ukraine and Israel, as well as Taiwan. “The Israeli situation is only going to put upward pressure on that demand.”

The Pentagon has sent back to Israel stocks of its shells relocated this year to replenish U.S. forces in Europe, a senior defense official said this week.

The Valkyrie XQ-58A is designed to deliver weapons or assist fighter jets—using artificial intelligence. Experts believe it could play a role in a multi-billion-dollar U.S. effort to use AI to rapidly expand its military assets. Photo illustration: Michael Tabb

Boeing rushed shipments to Israel at the start of the latest conflict, including its small diameter bombs and joint direct attack munition kits that turn them into more precise weapons. Normally, these would be sent by sea, but these came from existing Israeli orders and were flown over.

General Dynamics said it has been able to boost production of artillery shells and other munitions faster than expected, boosted by Pentagon investment in new facilities. The company is targeting annual production of one million shells, a fivefold increase.

Sales at its combat unit, which employs more than 2,000 staff in Europe, had been expected to be flat at best this year. They are up 15% so far this year, stoked by orders for shells, as well as for armored vehicles and military bridges. “Frankly, we don’t see that demand signal slowing down,” Aiken said.

Write to Daniel Michaels at Dan.Michaels@wsj.com and Doug Cameron at Doug.Cameron@wsj.com

Israel-Hamas War

https://www.rudaw.net/english/business/03112023

President Barzani blames Iraq for delay in resuming oil exports

23 hours ago

Karwan Faidhi Dri@KarwanFaidhiDri

Kurdistan Region President Nechirvan Barzani speaking to reporters in Paris on November 3, 2023. Photo: KRP

Also in ECONOMY

ERBIL, Kurdistan Region - Kurdistan Region President Nechirvan Barzani on Friday said Baghdad's failure to pay suitable fees to oil producers is one of the main obstacles to resuming oil exports through Turkey.

"Now Baghdad is really the issue because Turkey has announced that it is ready and willing to accept" resuming exports, Barzani told Rudaw's Alla Shally during a press conference in Paris on Friday.

Export of Kurdistan Region's oil through the Iraq-Turkey pipeline has been halted since March 23 when a Paris-based arbitration court ruled in favor of Baghdad against Ankara, saying Turkey had breached a 1973 agreement by allowing Erbil to begin independent oil exports in 2014.

Erbil and Baghdad have had multiple rounds of talks about resuming the exports and Barzani said there are still "some measures" that they need to agree on, including contracts the Kurdistan Regional Government (KRG) has signed with oil companies.

He said that Iraq treats oil companies operating in federally-controlled areas as service providers while the KRG treats them as "partners."

"For example, in the budget law, they [Iraq] have set the [production] fee per oil barrel from the Kurdistan Region at six dollars, which is very low. This has to be increased because they have set the fee [for their oil companies] at a higher amount," he said.

The Association of the Petroleum Industry of Kurdistan (APIKUR) said last month that Baghdad and Erbil have lost seven billion dollars since March due to the export halt. Safeen Dizayee, head of the KRG's Department of Foreign Relations, said in September the loss was $6 billion.

Barzani said on Friday that the halt has cost Iraq five billion dollars.

"This has caused loss to all Iraq, not only the Kurdistan Region," he said.

Control over oil exports and revenues has long been a source of friction between Erbil and Baghdad. Barzani said the problem now is technical rather than political.

"This technical issue should be resolved with Baghdad. To this point, I cannot say the issue, Baghdad's prevention of the flow of oil, is political. I believe that the issue is a technical one and it requires us to find a suitable solution for it between the Kurdistan Region and Baghdad," he said.

Prior to the halt, about 400,000 barrels of oil were being exported daily by Erbil through the pipeline that runs to the Turkish port of Ceyhan, in addition to some 75,000 barrels from Kirkuk oil fields controlled by the Iraqi government.

According to the highly-contentious Iraqi federal budget passed in June, the KRG is obliged to sell 400,000 barrels of crude oil through Iraq's national oil marketing body, alternatively Baghdad would use Kurdish oil domestically.

The loss in oil revenues has worsened the financial situation and left the KRG unable to pay its public sector without assistance from Baghdad. The two governments, however, cannot agree on the Kurdistan Region's financial entitlements.

Barzani said that they have acted "transparently" with Baghdad in this regard. "All data has been discussed with Baghdad in a well-organized way. Baghdad has no excuses not to send the salaries of the civil servants of the Kurdistan Region."

"We have been committed to all agreements and the Kurdistan Region expects Baghdad to resolve this issue as soon as possible," he said, adding that the fate of the Region's salaries should no longer be the subject of news for media outlets.

Federal employees are now receiving their salaries for November, but the KRG has said it will hand out August salaries next week.

Meeting with Macron

President Barzani is in Paris. He arrived on Thursday and was welcomed by French President Emmanuel Macron at Elysee Palace on Friday.

"I had a good meeting with President Macron. We discussed a number of issues, including bolstering the relations of Iraq and the Kurdistan Region with France," Barzani told reporters.

"As you know, France has a strategic agreement with Iraq. During this meeting, we reiterated that both sides should be committed to it as soon as possible," he added. "France has had a significant role. France has been a main supporter of Iraq politically and militarily and during the fight against ISIS [Islamic State]."

"We also talked about Erbil-Baghdad ties during the meeting, and we emphasized that the ongoing issues should be resolved through dialogue," Barzani noted.

The two leaders "engaged in a comprehensive dialogue, covering the political, security, and economic situation in Iraq, as well as the latest developments in the region. They underscored the necessity of strengthening the ties between France and both Iraq and the Kurdistan Region, in line with the strategic agreement between Iraq and France," according to a statement from the Kurdistan Region Presidency.

The close relationship between Kurds and France goes back to the 1980s. Danielle Mitterrand, first lady of France from 1981 to 1995, advocated for Kurds suffering under the regime of Saddam Hussein and was instrumental in securing the no-fly zone that allowed the Kurdistan Region to develop its current autonomy. She was affectionately known as the "Mother of Kurds" and inaugurated the first Kurdish parliament in 1992.

France was one of the first countries to open a consulate in the Kurdish capital of Erbil after the fall of Saddam Hussein's regime in 2003 and played a critical role in helping Kurds both in Iraq and in Syria in the war against ISIS.

When Kurds in the Kurdistan Region held an independence referendum in 2017, Baghdad imposed a flight ban on the Region for months. A historic visit by Barzani, then prime minister of the KRG, to France helped reconnect the Kurdistan Region to the world.

Hamas-Israel war

President Barzani said that the Hamas-Israel conflict has an impact on the whole region, adding that he and Macron agreed that humanitarian aid should be sent to Gaza as soon as possible. “We believe that those people who have been held captive by Hamas should be released,” he added.

According to the Palestinian health ministry, over 9,000 people have been killed in Gaza by Israeli airstrikes since the start of the war on October 7 following an attack by Hamas on Israel. There are fears that the tensions could spill over to other parts of the Middle East.

Barzani said that preparations should be made to find a “strategic solution” to the Palestine-Israel issue.

“We believe that the right solution is the creation of two states. This is a strategic solution that we believe is the only solution as everyone has understood that war does not resolve the issue which has existed for a long time,” he stated.

The two-state solution is a proposal that has been discussed for decades and has gained renewed traction since the start of the latest war, with Western leaders calling for its implementation.

Asked if the Hamas-Israel tensions will have a negative impact on the status of the Kurdistan Region, Barzani replied, “There is no threat on the status of Kurdistan as an entity.”

A pro-Iran group, Islamic Resistance in Iraq, has carried out tens of drone and rocket attacks against United States troops in Iraq and Syria in retaliation for Washington's support for Israel.

Barzani said that these attacks against US troops in Iraq and the Kurdistan Region “will never serve Iraq or the Kurdistan Region. We believe that everything should be done to prevent Iraq from being dragged into these issues.”

https://www.eia.gov/todayinenergy/detail.php?id=41073

AUGUST 27, 2019

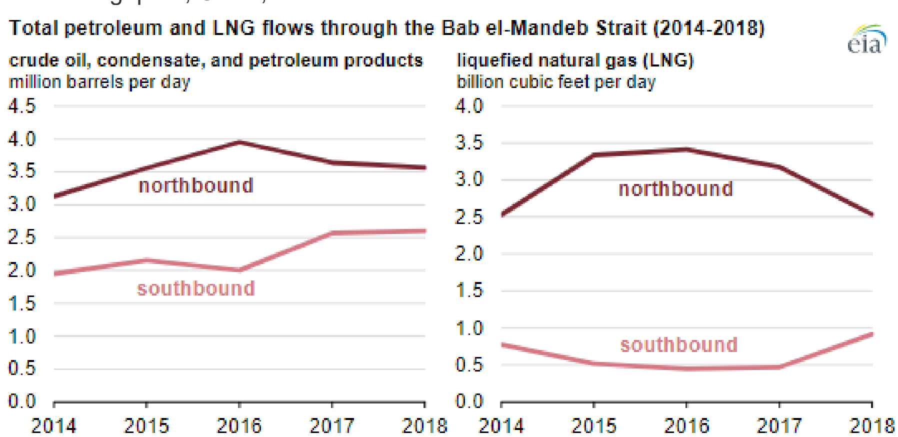
The Bab el-Mandeb Strait is a strategic route for oil and natural gas shipments

Source: U.S. Energy Information Administration

The Bab el-Mandeb Strait is a sea route chokepoint between the Horn of Africa and the Middle East, connecting the Red Sea to the Gulf of Aden and Arabian Sea. Most exports of petroleum and natural gas from the Persian Gulf that transit the Suez Canal or the SUMED Pipeline pass through both the Bab el-Mandeb and the Strait of Hormuz.

Chokepoints are narrow channels along widely used global sea routes that are critical to global energy security. The Bab el-Mandeb Strait is 18 miles wide at its narrowest point, limiting tanker traffic to two 2-mile-wide channels for inbound and outbound shipments. Closure of the Bab el-Mandeb Strait could keep tankers originating in the Persian Gulf from transiting the Suez Canal or reaching the SUMED Pipeline, forcing them to divert around the southern tip of Africa, which would increase transit time and shipping costs.

In 2018, an estimated 6.2 million barrels per day (b/d) of crude oil, condensate, and refined petroleum products flowed through the Bab el-Mandeb Strait toward Europe, the United States, and Asia, an increase from 5.1 million b/d in 2014. Total petroleum flows through the Bab el-Mandeb Strait accounted for about 9% of total seaborne-traded petroleum (crude oil and refined petroleum products) in 2017. About 3.6 million b/d moved north toward Europe; another 2.6 million b/d flowed in the opposite direction mainly to Asian markets such as Singapore, China, and India.



Source: U.S. Energy Information Administration, based on ClipperData, Inc; Suez Canal Authority; and International Group of LNG Importers (GIIGNL) using EIA conversion factors.

Note: CSV data

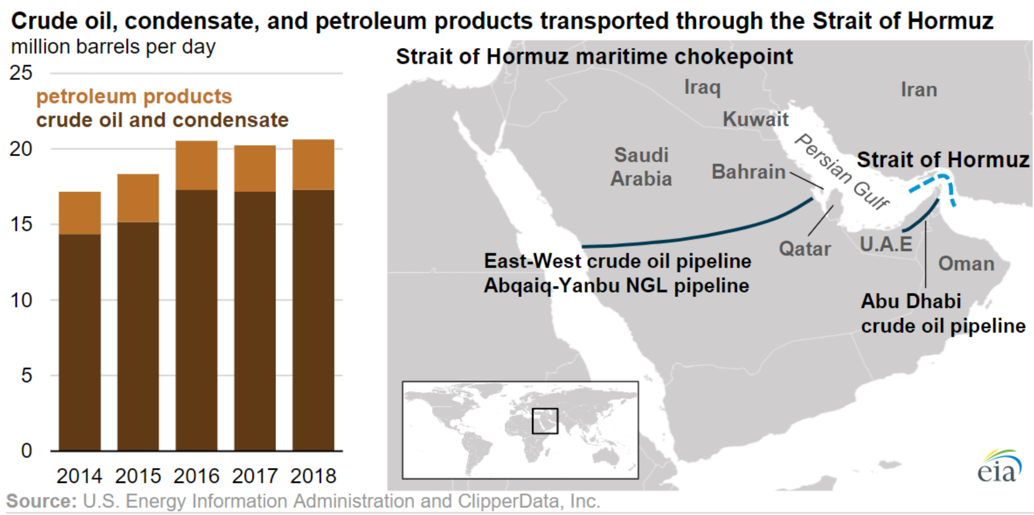
Before 2015, volumes of liquefied natural gas (LNG) passing through the Bab el-Mandeb Strait matched those passing through the Suez Canal because the Red Sea did not have any LNG infrastructure. In 2015, both Jordan and Egypt began importing small volumes of LNG into Red Sea ports, and these countries' imports of LNG peaked in 2016 at 1.4 billion cubic feet per day, 80% of which was delivered through the Bab el-Mandeb Strait.

More recently, as new natural gas fields in Egypt have come online, the need for Egypt to import LNG has decreased. Like flows to Egypt, total northbound flows of LNG via the Bab el-Mandeb have also decreased since 2016 as northbound flows to other destinations have remained fairly constant.

https://www.eia.gov/todayinenergy/detail.php?id=39932

JUNE 20, 2019

The Strait of Hormuz is the world's most important oil transit chokepoint



Source: U.S. Energy Information Administration and ClipperData, Inc.

The Strait of Hormuz, located between Oman and Iran, connects the Persian Gulf with the Gulf of Oman and the Arabian Sea. The Strait of Hormuz is the world's most important oil chokepoint because of the large volumes of oil that flow through the strait. In 2018, its daily oil flow averaged 21 million barrels per day (b/d), or the equivalent of about 21% of global petroleum liquids consumption.

Chokepoints are narrow channels along widely used global sea routes that are critical to global energy security. The inability of oil to transit a major chokepoint, even temporarily, can lead to substantial supply delays and higher shipping costs, resulting in higher world energy prices. Although most chokepoints can be circumvented by using other routes that add significantly to transit time, some chokepoints have no practical alternatives.

Volumes of crude oil, condensate, and petroleum products transiting the Strait of Hormuz have been fairly stable since 2016, when international sanctions on Iran were lifted and Iran's oil production and exports returned to pre-sanctions levels. Flows through the Strait of Hormuz in 2018 made up about one-third of total global seaborne traded oil. More than one-quarter of global liquefied natural gas trade also transited the Strait of Hormuz in 2018.

Crude oil, condensate, and petroleum products transported through the Strait of Hormuz

million barrels per day

	2014	2015	2016	2017	2018
Total oil flows through Strait of Hormuz	**17.2**	**18.4**	**20.6**	**20.3**	**20.7**
Crude and condensate	14.4	15.2	17.3	17.2	17.3
Petroleum products	2.8	3.2	3.3	3.1	3.3
World maritime oil trade	**56.4**	**58.9**	**61.2**	**62.5**	**N/A**
World total petroleum and other liquids consumption	**93.9**	**95.9**	**96.9**	**98.5**	**99.9**
LNG flows through Strait of Hormuz (Tcf per year)	**4.0**	**4.2**	**4.2**	**4.1**	**4.1**

Source: U.S. Energy Information Administration, based on *Short-Term Energy Outlook* (June 2019), ClipperData, Saudi Aramco bond prospectus, Saudi Aramco annual reports, Saudi Ports Authority, International Group of Liquefied Natural Gas Importers, and U.N. Conference on Trade and Development

Note: LNG is liquefied natural gas; Tcf is trillion cubic feet

There are limited options to bypass the Strait of Hormuz. Only Saudi Arabia and the United Arab Emirates have pipelines that can ship crude oil outside the Persian Gulf and have the additional pipeline capacity to circumvent the Strait of Hormuz. At the end of 2018, the total available crude oil pipeline capacity from the two countries combined was estimated at 6.5 million b/d. In that year, 2.7 million b/d of crude oil moved through the pipelines, leaving about 3.8 million b/d of unused capacity that could have bypassed the strait.

Operating pipelines that bypass the Strait of Hormuz, 2018

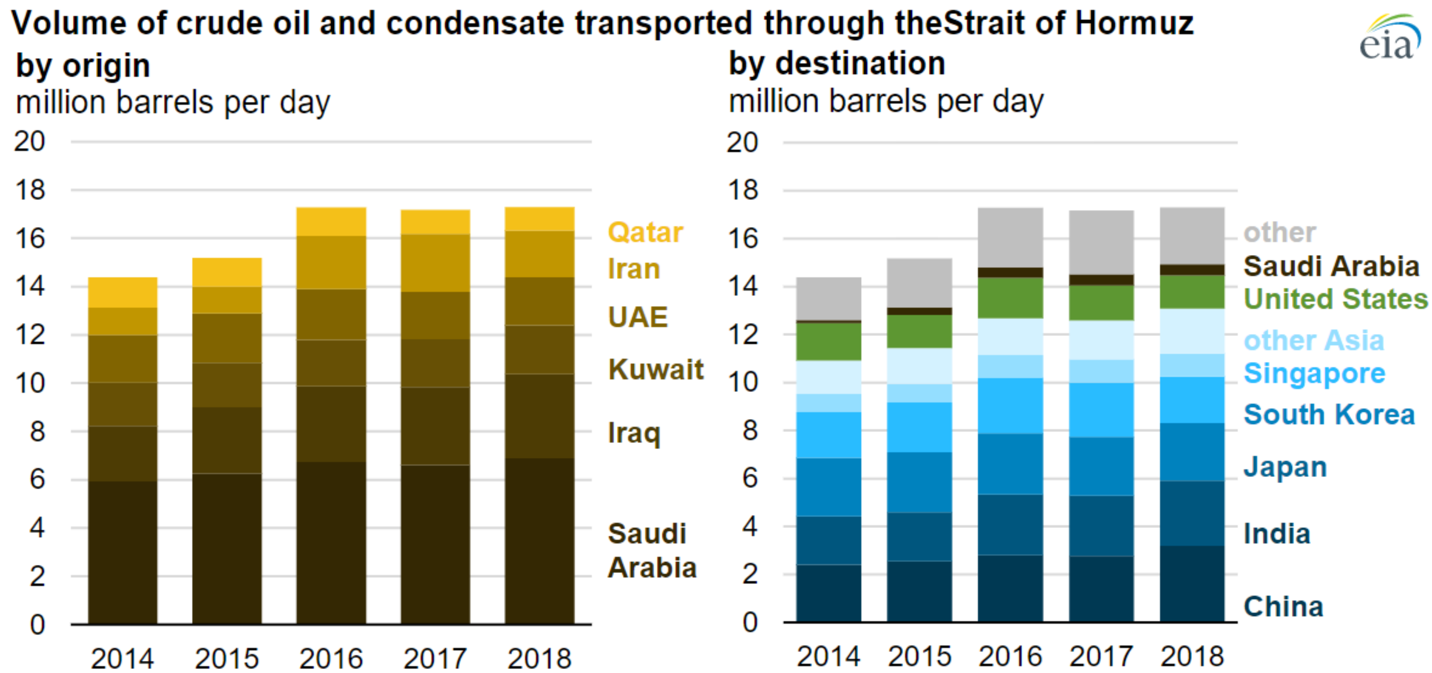
million barrels per day

Pipeline name	Country	Capacity	Throughput	Unused capacity
Petroline (East-West Pipeline)	Saudi Arabia	5.0	2.1	2.9
Abu Dhabi Crude Oil Pipeline	United Arab Emirates	1.5	0.6	0.9
Abqaiq-Yanbu Natural Gas Liquids Pipeline	Saudi Arabia	0.3	0.3	0.0
TOTAL		**6.8**	**3.0**	**3.8**

Source: U.S. Energy Information Administration, based on ClipperData, Saudi Aramco bond prospectus (April 2019)
Note: Unused capacity is defined as pipeline capacity that is not currently used but can be readily available.

Based on tanker tracking data published by [ClipperData](), Saudi Arabia moves the most crude oil and condensate through the Strait of Hormuz, most of which is exported to other countries (less than 0.5 million b/d transited the strait in 2018 from Saudi ports in the Persian Gulf to Saudi ports in the Red Sea).

EIA estimates that 76% of the crude oil and condensate that moved through the Strait of Hormuz went to Asian markets in 2018. China, India, Japan, South Korea, and Singapore were the largest destinations for crude oil moving through the Strait of Hormuz to Asia, accounting for 65% of all Hormuz crude oil and condensate flows in 2018.



Source: U.S. Energy Information Administration, based on tanker tracking data published by ClipperData, Inc.

In 2018, the United States imported about 1.4 million b/d of crude oil and condensate from Persian Gulf countries through the Strait of Hormuz, accounting for about 18% of total U.S. crude oil and condensate imports and 7% of total U.S. petroleum liquids consumption.

Principal contributor: Justine Barden

Tags: liquid fuels, crude oil, oil/petroleum, map

"China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting." **Mike Muller, Head Vitol Asia.**

SAF Group created transcript of comments by Mike Muller (Head, Vitol Asia) to Sean Evers (Founder & Managing Partner of Gulf Intelligence) on Gulf Intelligence's Daily Energy Markets podcast on Nov 5, 2023.
https://twitter.com/gulf_intel/status/1721052973919506582

Items in "italics" are SAF Group created transcript.,

At 11:45 min mark, Evers "… *what's your outlook now as China moves in to the winter peak demand window and the China new year coming up in January?" Muller "… we have to remind ourself this is the time of year when demand in Asia peaks but demand in the western hemisphere tends to ebb to a low because of less driving activity, winter conditions, etc. But what we see going on in China is quite interesting because the fuel sale data on a weekly basis does not really show evident signs of economic weakness. Diesel sales are in line with expectations. Jet demand is indeed robust, exceeding expectations. Singapore Airlines just laid on five extra flights a week from Singapore to China, they don't tend to do that unless they're confident that there will be passengers in their seats. And it's only really gasoline that has shown a steeper than expected dip in October but there is a reason for that – there was a public holiday Golden Week. But the one thing that has happened to China that is quite notable is that refining margins have dropped to the lowest levels we have seen in a very long time and certainly the lowest level this year. In some cases, bordering on the negative. So why are Chinese margins negative. I think the explanation is that runs in the third quarter, which were a million barrels a day more perhaps than same time last year when we still had Covid, so always difficult to compare. But they were likely a response to high demand expectations that were possibly unreasonably high and, at the same time, there was a bit of destocking going on. And as a consequence now, we've seen all this translate into higher than expected stocks. And if the stocks are unseasonably high, the only consequence is that you push domestic prices down, you push refining margins down and you force run cuts. So it goes without saying that China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting.*

Prepared by SAF Group https://safgroup.ca/news-insights/

Order 2023-10-9

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
OFFICE OF THE SECRETARY
WASHINGTON, D.C.

Issued by the Department of Transportation
on the 27th day of October, 2023

Served: October 27, 2023

In the matter of 14 CFR Part 213 Phase 2 Amendment of Order 2020-6-1 regarding: **Air China Limited d/b/a Air China; Beijing Capital Airlines Co., Ltd.; China Eastern Airlines Corporation Limited; China Southern Airlines Company Limited; Hainan Airlines Holding Co. Ltd.; Sichuan Airlines Co., Ltd.; and Xiamen Airlines**	Docket DOT-OST-2020-0052

ORDER AMENDING 14 CFR PART 213 ORDER 2020-6-1

Summary

As discussed below, the U.S. Department of Transportation (the Department) is further modifying the decision reached under 14 CFR Part 213 in Order 2020-6-1 to permit the above-captioned combination carriers of China to operate additional weekly round-trip scheduled passenger flights to and from the United States. Specifically, effective November 9, 2023, the specified Chinese carriers may operate, in the aggregate, a total of thirty-five (35) weekly round-trip scheduled passenger flights to and from the United States.

Background

Beginning on June 3, 2020, the Department took a series of actions under 14 CFR Part 213 to address pandemic-related measures taken by the Government of the People's Republic of China (PRC). The Department fully set forth background information and the bases for its decisions in Orders 2020-5-4, 2020-6-1, 2020-6-3, 2020-6-6, 2020-8-6, 2023-5-6, and 2023-

8-10. Order 2020-6-3 and the Orders that followed have authorized incremental increases in authorized services by PRC air carriers in the China-U.S. market. On August 11, 2023, the Department issued Order 2023-8-10 to allow for the most recent increase of services by the above-captioned carriers. Specifically, Order 2023-8-10 provided for (1) effective September 1, 2023, the specified Chinese carriers to operate, in the aggregate, a total of eighteen (18) weekly round-trip scheduled passenger flights to and from the United States; and (2) effective October 29, 2023, the specified Chinese carriers to operate, in the aggregate, a total of twenty-four (24) weekly round-trip scheduled passenger flights to and from the United States. In Notices issued on August 21, 2023, and September 26, 2023, the Department approved Chinese-carrier schedules for the respective increases in weekly flights provided for by Order 2023-8-10.[1]

Decision

The Department has continued to assess market conditions and other factors associated with its Part 213 posture. In that regard, we have determined that it is in the public interest to undertake a sixth modification of Order 2020-6-1 to permit the above-captioned combination carriers of China, in accordance with the schedules that have been and/or will be filed as required by Order 2020-5-4 and are approved by the Department, to operate additional weekly round-trip scheduled passenger flights to and from the United States. Specifically, effective November 9, 2023, the specified Chinese carriers may operate, in the aggregate, a total of thirty-five (35) weekly round-trip scheduled passenger flights to and from the United States.

As the Department stated in Order 2020-6-1, our overriding goal is an improved environment wherein the carriers of both parties are able to exercise fully their bilateral rights to maintain a competitive balance and fair and equal opportunity among U.S. and Chinese air carriers. To that end, we seek to continue the ongoing and productive dialogue with CAAC to facilitate a gradual, broader reopening of the U.S.-China air services market. Accordingly, the Department intends to establish a roadmap that will provide for a phased and predictable return to the capacity entitlements in the Agreement conditioned upon carriers' ability to exercise all rights and opportunities provided for under the Agreement. Contingent upon that outcome, the Department hopes to realize a significant step forward in the further normalization of the U.S.-China air transportation market in anticipation of the Summer 2024 traffic season.

ACCORDINGLY,

1. We modify Order 2020-6-1 to permit, effective November 9, 2023, in the aggregate and subject to the limitations and schedule approval requirements outlined above, thirty-five (35)

---

[1] *See* Department Notice issued in this Docket on September 26, 2023, for a summary of the approved schedules for the twenty-four (24) weekly round-trip scheduled U.S.-China passenger flights by Chinese carriers that are currently authorized by the Department. The Department reiterates that, pursuant to the terms of our previous Orders and Notices in this Docket, the schedules for these twenty-four (24) weekly flights may not be modified unless expressly authorized by the Department.

weekly round-trip scheduled passenger operations to be operated by the above captioned Chinese carriers in accordance with the schedules filed pursuant to Order 2020-5-4;

2. For the services specified in ordering paragraphs 1 and 2, we direct Air China Limited d/b/a Air China; Beijing Capital Airlines Co., Ltd.; China Eastern Airlines Corporation Limited; China Southern Airlines Company Limited; Hainan Airlines Holding Co. Ltd.; Sichuan Airlines Co., Ltd.; and Xiamen Airlines, as appropriate, to file proposed schedules in Docket DOT-OST-2020-0052 for Department consideration;[2]

3. We may amend, modify, or revoke this Order at any time and without hearing; and

4. We will serve this Order on Air China Limited d/b/a Air China; Beijing Capital Airlines Co., Ltd.; China Eastern Airlines Corporation Limited; China Southern Airlines Company Limited; Hainan Airlines Holding Co. Ltd.; Sichuan Airlines Co., Ltd.; and Xiamen Airlines; all certificated U.S. carriers operating large aircraft; the Embassy of the People's Republic of China in Washington, D.C.; the Civil Aviation Administration of China (CAAC); the Department of State; the Transportation Security Administration; and the Federal Aviation Administration.

By:

Carol A. (Annie) Petsonk
Assistant Secretary
Aviation and International Affairs

(SEAL)

An electronic version of this document is available on the World Wide Web at:
http://www.regulations.gov

[2] The Department intends to continue to take separate actions to explicitly specify the schedules for the services that we will approve.

Caixin China General Manufacturing PMI®

Manufacturing production falls slightly in October

The latest PMI data signalled a renewed deterioration in overall manufacturing conditions across China in October, albeit one that was marginal overall. Firms registered a fresh fall in production amid slower growth in overall sales, with the latter dampened by weak foreign demand. As a result, goods producers trimmed their purchasing activity and ran down their inventories of inputs. Employment across the sector also fell, and at a quicker rate than in September. On the costs front, manufacturers signalled the quickest increase in average input prices since January, leading to a further rise in selling prices.

At 49.5 in October, the headline seasonally adjusted *Purchasing Managers' Index™ (PMI®)* – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – fell from 50.6 in September and below the neutral 50.0 threshold to signal a fresh deterioration in manufacturing conditions. Though only marginal, it was the first time that a deterioration has been recorded since July.

Weighing on the headline index was a renewed fall in manufacturing production during October. Though only slight, the decline contrasted with modest expansions in the prior two months. Companies that cut output levels often linked this to relatively muted sales, particularly from abroad.

Overall new business expanded for the third straight month, but the rate of growth eased to one that was only marginal. Panel members often noted that sluggish global economic conditions and high prices had dampened sales. Notably, new export business declined for the fourth straight month in October, albeit slightly.

Lower production and relatively muted client demand weighed on purchasing activity, which fell for the first time since July. Firms also made greater usage of current stocks, partly to help control costs, which led to a moderate decline in inventories of inputs. On the other hand, weaker-than-expected sales and the delayed shipment of goods led to the strongest rise in inventories of post-production items since September 2015.

Turning to supply chains, average delivery times for purchased inputs improved slightly in October. There were some reports that requests for expedited shipments had supported the slight shortening of lead times.

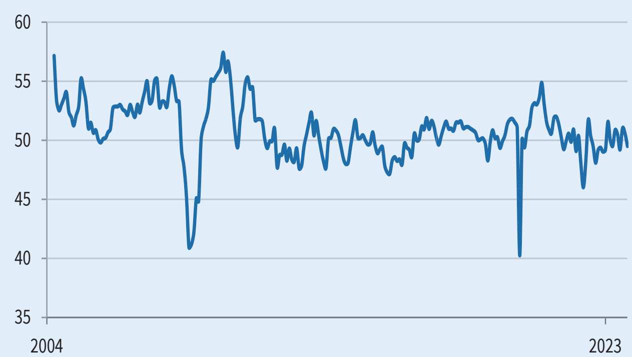
Manufacturers trimmed their staffing levels for the second straight month in October, with the rate of job shedding the quickest seen since May. There was evidence that softer customer demand and efforts to cut costs had led firms to readjust their workforce numbers. At the same time, backlogs of work continued to expand slightly, with some firms linking this to recent increases in new work and pressure on capacity.

Average input prices faced by Chinese manufacturers increased further in October. Though modest, the rate of inflation was the quickest recorded since January, with firms often citing higher prices for raw materials and oil. Greater operating expenses were partly passed on to clients in the form of higher selling prices, which likewise rose at a modest rate.

Business confidence regarding the 12-month outlook for production softened again in October, reaching its lowest since September 2022. While some companies were hopeful that new product launches and improved client demand both at home and overseas would support growth, others expressed concerns over the sluggish global economic climate.

China General Manufacturing PMI

sa, >50 = improvement since previous month



Sources: Caixin, S&P Global PMI

Key findings:

Output reduced amid slower sales growth

Purchasing activity and employment both decline

Input cost inflation ticks up to nine-month high

New Export Orders Index

sa, >50 = growth since previous month

Sources: Caixin, S&P Global PMI

Employment Index

sa, >50 = growth since previous month

Sources: Caixin, S&P Global PMI

Commenting on the China General Manufacturing PMI® data, Dr. Wang Zhe, Senior Economist at Caixin Insight Group said:

"In October, the Caixin China General Manufacturing PMI dropped 1.1 points from the previous month to 49.5, falling into contractionary territory for the first time in three months.

"Manufacturing demand expanded slowly, and supply contracted. Total new orders increased for the third consecutive month, but the pace of growth slowed for two months in a row. External demand continued to decline, with new export orders falling for the fourth straight month. As a result, manufacturers reduced their supply, leading production to shrink for the first time in three months.

"Manufacturing employment continued to fall. The employment subindex, which was in negative territory for the seventh time in eight months, hit its lowest since May. Manufacturers reduced employment due to market uncertainty and increased cost pressures. As capacity declined, backlogs increased, with the corresponding gauge staying in expansionary territory for the fifth consecutive month.

"Prices rose, with the measures for input costs and output prices both in expansionary territory — the former rising to a high not seen since January. The increase in cost pressure stemmed from rising raw material and crude oil prices. Meanwhile, rising costs contributed to higher output prices, but manufacturers had limited scope for price increases due to weak demand.

"Suppliers' delivery times shortened slightly, as logistics and transportation pressures were modest. The subindex for delivery times was in positive territory for the seventh time in nine months. Inventories of raw materials decreased, as manufacturers' purchases declined amid limited market sentiment. Weak demand led to a significant increase in stocks of finished goods.

"Business optimism continued to decline, with the corresponding gauge hitting the lowest since September last year despite remaining in expansionary territory. Respondents were concerned about the global economic outlook in the coming year.

"Overall, manufacturers were not in high spirits in October. Supply, employment and external demand all fell, while domestic demand expanded at a slower pace. Costs and output prices both rose, purchases fell, and inventories of finished goods increased. Business optimism continued to wane.

"Many of China's economic data for the third quarter exceeded market expectations. Consumption, especially in the services sector, is resilient. The economy has showed signs of bottoming out, but the foundation of recovery is not solid. Demand is weak, many internal and external uncertainties remain, and expectations are still relatively weak.

"Policy-wise, China has rolled out measures to stabilize market expectations and boost consumption and investment. More recently, it has decided to issue an additional 1 trillion yuan of treasury bonds to support post-disaster reconstruction and enhance the capacity of disaster prevention, mitigation and relief. This policy will facilitate infrastructure investment and help stabilize the economy, but its impact on improving household income, employment and expectations remains to be seen."

https://wam.ae/en/details/1395303215326
Mon 30-10-2023 10:39 AM

COP28 President says world must unite on climate action

ABU DHABI, 30th October, 2023 (WAM) -- Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology and COP28 President, addressed a record number of ministers and delegations from around the world at the opening session of Pre-COP, declaring that the international community needs to unite on climate action and that “we have to come through. We must unite. We must act. And we must deliver in Dubai.”

Pre-COP, taking place today and tomorrow in Abu Dhabi, is a preparatory meeting of ministers and negotiators ahead of COP28. This year’s event has seen record attendance, with 70 ministers and over 100 delegations coming together in the UAE capital, more than double the normal number of participants for a Pre-COP.

Acknowledging that “there are too many things out there dividing our world at this moment,” the COP28 President declared that “Now more than ever we need to unite on climate and deliver a clear message of hope, solidary, stability and prosperity. We need to show that the international community can deliver and send a clear signal that keeps 1.5 within reach.”

Al Jaber pointed out that before the Paris Agreement, the world was heading for more than four degrees of warming but is now on course for warming of two to three degrees, according to the latest reports, “We are heading in the right direction, but nowhere near fast enough,” he warned.

Parties “must do better” in formulating agreements on issues than they had done at previous conferences, Dr. Al Jaber stated. “We have no time to waste on disunity,” he warned. “We must look beyond short-term thinking; we must end the excuses and delays, and redefine our self-interest as a common interest.”

“Let this process prove that multilateralism still works. I believe we can fulfil our responsibility. I know that we must.”

The COP28 President reiterated the need to deliver a robust response to the Global Stocktake and put the world back on track on delivering the goals of the Paris Climate Agreement. He highlighted key areas of focus, including a strong mitigation outcome, a comprehensive adaptation agreement, and “groundbreaking solutions” on finance. “That includes delivering on the fund and funding arrangements for loss and damage,” he added. “What was promised in Sharm el Sheikh must be delivered in Dubai.”

“We need solid solutions for a 43 percent cut in emissions by 2030 because that is exactly what the science tells us,” Dr. Al Jaber said. On the issue of fossil fuels, he said, “I know there are strong views about the idea of including language on fossil fuels and renewables in the negotiated text. I need you to work together to come forward with solutions that can achieve alignment, common ground and consensus between all parties. We must be responsible. We must be pragmatic. And we must leave no-one behind.”

Updating the meeting on policy, the COP28 President said: “More than 20 oil and gas companies have answered COP28’s call to end methane emissions by 2030. And I see positive momentum as more are joining. And we are engaging with all high-emitting sectors, like heavy transportation, aluminium, steel and cement, to lay out credible decarbonisation plans.” On finance, Dr. Al Jaber emphasised the importance of ensuring capital flows to where it is most needed, notably the Global South and of rebuilding trust in developing nations.

Speaking to promises made, he stressed that “Old promises must be kept, like the 100-billion-dollar pledge. I am grateful for the work of Germany and Canada on this and their reassurances that things are now on track. But, as I stand here now, I still cannot say with certainty that has been delivered.”

He also outlined the importance of adaptation, calling for the Global Goal to be met, and stated that, “We must end deforestation and preserve natural carbon sinks… it is time for every nation to embed nature-positive investments in national climate strategies.”

The COP28 President reminded attendees that “the world is watching. Our nations, our communities, our families, our kids, they are all watching. So, let us unite.”

“We have the power; we must accept the responsibility,” he concluded, adding, “This process must not fail. We have to come through. We must deliver in Dubai.”

Esraa Esmail/ Rola AlGhoul

https://calgaryherald.com/news/ndp-to-back-conservative-carbon-tax-motion/wcm/33f9c1e9-fc82-449d-be3e-01ee6f356088

'The adults in the room': NDP will back Conservative motion to exempt carbon tax from all home heating

The Conservatives have been pushing the NDP to reveal their intentions for days, arguing that many of their MPs represent remote communities with hefty home heating bills

Author of the article:

Catherine Lévesque

Published Nov 02, 2023 • 3 minute read


NDP House Leader Peter Julian: “For once the Conservatives haven't gone over the top with their motions... We're going to support that.” PHOTO BY ADRIAN WYLD/THE CANADIAN PRESS/FILE

OTTAWA — New Democrats will be supporting Conservative leader Pierre Poilievre’s motion to extend the temporary pause on the federal price on carbon to all forms of home heating, NDP House leader Peter Julian said Thursday.

“Given the panicked reaction from the Liberals, seemingly tied to their polling standing in Atlantic Canada, given that the Conservatives for once have actually offered a motion that doesn’t deny climate change, we will be supporting that motion,” said Julian.

Poilievre’s motion reads as follows: “That, given that the government has announced a “temporary, three-year pause” to the federal carbon tax on home heating oil, the House call on the government to extend that pause to all forms of home heating.”

The NDP attempted to amend the original motion put forward on Thursday to slash the GST from all forms of home heating but it did not receive the Conservatives’ approval.

“This is an issue of being the adults in the room,” said Julian. “For once the Conservatives haven’t gone over the top with their motions — they generally tend to do that. And they’ve added they’ve put something that is straight up. We’re going to support that.”

The Conservatives have been pushing the NDP to reveal their intentions for two days, arguing that many of their MPs represent remote communities who also have hefty home heating bills.

“The NDP leader says he disagrees with the dual class citizenship approach of the prime minister on the carbon tax. I’m giving him a chance to prove it,” said Poilievre while speaking on his motion in a speech in the House of Commons on Thursday,

“Everyday people in Timmins, in Kapuskasing, in Smithers, British Columbia, and in countless other NDP communities will be watching on Monday to find out whether the NDP leader votes for them or the prime minister,” he added.

NDP MP Charlie Angus was critical of the Conservatives’ move, saying that the motion was simply another way of pitting region against region.

“They know that if we just take the carbon tax off, it’s not going to mean anything for people in British Columbia, who are still paying heating bills. They’re not covered by the carbon tax because they’re under cap and trade. Neither is Quebec,” he said.

But his colleague Taylor Bachrach insisted on the importance of fairness for all Canadians, something that has also been mentioned by B.C. premier David Eby earlier this week.

“I think it is eminently reasonable for people in other provinces and other parts of this country who have been overlooked by this government when it comes to the affordability of home heating to want the same,” said Bachrach.

Critics have been fusing ever since Prime Minister Justin Trudeau announced a temporary pause for home heating oil flanked with his Atlantic caucus last week.

Liberal MPs have since been trying to reframe the issue as an affordability issue, arguing that home heating oil is two to four times more expensive than natural gas, but also insisting on the necessity to transition rapidly to heat pumps for the good of the planet.

But New Democrats do not buy those arguments. “I think most Canadians see this quite clearly for what it is, which is a cynical attempt by a flailing government to save its political hide in the only part of rural Canada, where it has any,” said Bachrach.

Julian said he thinks the exemption tends to pit “one region against another, one type of heating against another.”

“In fact, it strangely seems to incentivize people from going to heating oil, which, of course, creates a bigger carbon footprint. So it’s not a smart decision. It wasn’t a well thought-out decision. It tends to disadvantage many people,” he said.

“I think what the NDP has done in this Parliament is we continue to be the adults in the room. This decision has been made. That’s a bad one. How do we then make it equitable so that everybody can afford to heat their homes this winter?”

It seems unlikely that the Bloc Quebecois will be voting for the Conservative motion, since it does not apply to Quebec. As for the Liberals, it was still unclear on Thursday if anyone would be voting against their own party.

Market insights

Global economic growth ticked down in Q3 relative to Q2, driven by weakening momentum in services. Global manufacturing activity remains subdued, with the Global Purchasing Managers Index (PMI) below the threshold of 50 for the 13th consecutive month in September at 49.1, and no convincing signs of a rebound. Headline inflation is coming down in Western economies, and the monetary tightening cycle is close to a peak. Consumer confidence remains weak and volatile. Meanwhile, labour markets are exceptionally resilient, providing support for consumer demand. Progress has been made to better align inventory levels with final demand, but with mixed results across different geographies and industries.

The US economy continued to defy headwinds in Q3. Consumer demand remained robust, with an increase of 2.5% in real goods consumption in July and August 2023 compared to the same months in 2022. However, the October PMI figures indicate that the manufacturing sector is at standstill, and that activity in the services sector has lost steam compared to Q2. Although inflation is on a declining path, Federal Reserve guidance indicates that monetary policy will remain tight for the near future, and the chances of imminent relief in financial conditions for consumers and businesses are low. In the Euro Area, economic activity has stagnated over the past year, and the latest data are consistent with flat to negative GDP growth in Q3. Weak demand for Europe's manufacturing exports and flat domestic demand have dragged down growth. The service sector, until recently still recovering from the pandemic, has also lost steam. In China, consumers remain hesitant as confidence is very low, amidst high youth unemployment and economic uncertainty. The property market is a weak link, and combined with high debt levels, demographic headwinds and geopolitical tensions, concerns about the outlook for the Chinese economy are abundant.

Despite mounting headwinds in the world's top three economies, global container demand growth improved in Q3 2023 for two reasons: August seeing a more favourable base effect kicking in, and strong import growth in four regions: Africa, Europe, India and Middle East, and Latin America. Weakness is primarily concentrated in imports into North America and East Asia. The growth estimate for Q3 is in the range of 1% to 3% year-on-year, after a decline of -4.4% in Q2. Despite recent improvements, full year 2023 growth is expected to remain negative, in the -2% to -0.5% range.

On the supply side of the Ocean market, the increasing stream of vessel deliveries and still limited scrapping activity are pushing up fleet growth. Easing supply chain bottlenecks and weaker demand on long-haul trades have released further capacity. Although some of the added capacity is being absorbed by slower steaming and cancelled sailings, the gap between demand and supply growth remained wide in Q3 2023 in year-on-year terms. The combination of weak demand, easing bottlenecks and a pick-up in nominal fleet growth has put downward pressure on freight rates since Q3 2022. The SCFI Composite Index average in Q3, at 988, was in line with Q2 and 25% above Q3 2019, but saw a sizeable decline compared to the same period last year of -70%.

Estimates point to a continuation of the decline for Air Freight volumes in Q3, in line with the -12% year-on-year in Q2 and Q1. Global cargo load factors, a measure of utilisation of capacity, declined in Q3. Rates, measured by the Baltic Air Freight Index, declined 46% compared to Q3 2022, although they are higher than pre-pandemic.

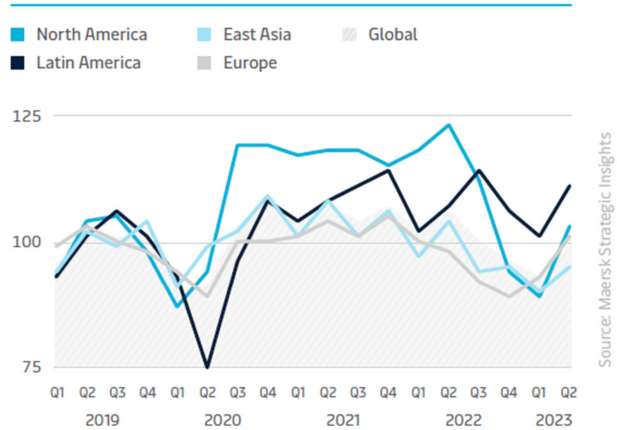
US Road Freight demand continued to decline in the first two months of Q3. The American Trucking Associations seasonally adjusted For-Hire Truck Tonnage Index declined 1.1% in September, after rising 0.2% in August. In Europe, also demand for trucking services continued to decline throughout Q3. The Transporeon Road Freight Capacity Index shows that the volume of rejections of consignments fell, and available capacity grew 12.5% year-on-year.

In the US, warehouse vacancy rates remained near historical lows at 4.7% in Q3, according to Cushman & Wakefield. This is due to high interest rates and tighter lending conditions impacting severely warehousing construction, now at the lowest level in a decade, with every major US market affected. In Europe, the vacancy rate also stood at 4.7% at the start of Q3 2023, according to Savills. This is low by historical standards, but it is expected to rise as demand slows and construction projects started in past quarters become available in the market.

The environment for container trade and logistics services remains challenging. A slowing global economy, risks of financial stress and a long list of geopolitical tensions, ranging from tense China-US relations, war in Ukraine and in the Middle East, can wipe out the improvements expected for Q4 2023 and 2024 volumes.

Container trade volumes, by import region

Index (FY2019=100)



Mike Henry, CEO

Thanks Ken, and thanks to everyone here with us in Adelaide today and watching online.

Safety

I will start with safety, and 2023 was a difficult year from a safety perspective for the Company.

Tragically two of our colleagues lost their lives while on the job. This included a fatal incident at the Olympic Dam asset here in South Australia.

Our thoughts remain with their families, friends and colleagues. These events underscore the absolute importance of safety first. We remain resolute in our commitment to eliminating fatalities and serious injuries across BHP.

Strong operational performance

Turning now to broader business performance, as you've just heard from Ken, this financial year we delivered another strong set of results.

We met production guidance across all of our four commodities, and achieved record annual production at Western Australia Iron Ore, Olympic Dam and Spence. We managed inflation well.

We made a significant economic and social contribution to the regions where we operate, and delivered US$8.6 billion cash back to shareholders in dividends.

We have continued to expand and execute our suite of growth options, and that includes progressing projects, advancing studies, and exploring new prospects.

We continue to invest in technology, innovation and early-stage options.

And of course, we undertook the successful acquisition of OZ Minerals.

Operational performance

In terms of underlying operations, this year we demonstrated strong performance across the business, thanks to the efforts of our more than 80,000 employees and contractors.

Now if I unpack that a bit…

Western Australia Iron Ore achieved record production volumes and remains the lowest cost of the major iron ore producers. In fact, our iron ore operations generate around five US dollars more per tonne in free cash flow than that reported by our largest competitor, and when you multiply that by the hundreds of millions of tonnes we produce each year you get a sense for the relative performance of this asset. We are ensuring we get maximum returns for every dollar of shareholder capital invested in this business.

In Copper, Escondida's production increased by five per cent, year-on-year. Unit costs increased by 17 per cent, primarily driven by inflationary pressure. This was a solid outcome in the context of what other producers are experiencing; however, we remain very focused on mitigating the impacts of inflation.

We achieved record production at Spence following higher concentrator throughput, and at Olympic Dam, with continued strong performance at our concentrator and smelter.

This disciplined operational performance has underpinned continued, strong returns to shareholders. In fact, BHP was among the highest dividend payers globally in the 2022 calendar year, of any company in any sector.

Portfolio and growth

Of course our business isn't just about today, it's about delivering value for shareholders long-term, so I do want to spend a few minutes on portfolio and growth.

The resources industry is cyclical, and commodity prices will always impact overall sector profitability.

This cyclicality is a key reason why we seek to have assets that are low on the cost curve. This ensures they are more resilient at all points in the cycle.

This allows us to focus even more intensely on managing the things within our control – safety and productivity. It allows us to do all we can to maximise the returns from the assets we operate and the capital we have invested in them.

We seek a portfolio of assets that is deliberately structured to take advantage of the megatrends occurring across the globe.

We see potential for growth in those commodities essential to the needs of urbanisation, decarbonisation, and a growing population, and we are making the investments needed to unlock productivity, progress towards decarbonising our assets, and deliver growth.

We're working hard to define the path forward for Escondida which is the world's largest copper mine and resource[1] and which is well-placed to be one of the most responsible copper producers globally, given its transition to full renewable power and desalinated water usage.

At WAIO, we produced 285 million tonnes of iron ore in FY23, progressing towards 305 million tonnes per annum, with studies into reaching 330 million tonnes underway. Iron ore is essential for the steel needed for infrastructure for the energy transition and ongoing urbanisation.

1 On a contained metals and equity share basis

Significant growth opportunities ahead

We also have a significant, exciting growth path ahead of us in potash in Canada. Potash, used in fertilisers, will be essential for food security and more sustainable farming, against the backdrop of a growing global population.

We believe the long-term fundamentals for the potash market are compelling and they have further improved since we sanctioned Jansen Stage 1. Stage 1 is now 32 per cent complete – and remains on budget and ahead of its original schedule, with first production expected late in the 2026 calendar year.

And just yesterday the Board approved the decision to invest US$4.9 billion into Jansen Stage 2, underscoring our confidence in potash and marking the next phase of our growth in Canada.

Stage 2 will help to transform Jansen into one of the world's largest potash mines, doubling production capacity to 8.5 Mtpa, and positioning BHP as one of the leaders in the global potash industry.

And we're able to deliver Stage 2 at a lower capital intensity because of the infrastructure delivered in Stage 1.

Jansen is a world-class asset in an investment friendly jurisdiction. It will create value for generations to come.

We have continued to increase our copper and nickel prospects globally. These interests include Oak Dam in South Australia, Kabanga Nickel in Tanzania, and Ocelot in the United States. They also include projects in Serbia and Peru, and the Filo del Sol project in Argentina and Chile.

We are also consolidating our coal portfolio to focus on the higher quality metallurgical coals that are increasingly preferred by our customers – most recently through the up to US$4.1 billion divestment of our Blackwater and Daunia mines, part of the BMA business, which we expect to complete in the fourth quarter of FY24.

Creating potential for future growth

And of course, there's OZ Minerals. Bringing OZ into BHP creates the potential for further growth in the near and long term, in the newly aggregated copper province for BHP assets here in South Australia.

We believe that with stable and competitive government policies in place in South Australia, there will be a strong case for future capital investment in these assets relative to other potential investment options in our portfolio.

I really do want to thank Premier Malinauskas and his government for the constructive way we are working together towards delivering this shared objective.

Globally, the mining sector is at a crossroads. The energy transition and broader decarbonisation efforts are expected to progressively shift demand growth towards future-facing commodities. A massive wave of capital investment will be required to meet demand for these minerals.

Within this environment of heightened global competition, Australia has a once-in-a-generation opportunity to capture an outsized share of this investment flow, and enjoy the far-reaching future economic and societal benefits it could deliver. However, we can only succeed if we are willing and able to compete.

This will require government and industry to work together to improve the competitiveness of Australia's mining sector so that the nation can enjoy the future benefits this opportunity can bring.

It's against this backdrop that we are closely watching policy changes at the Australian Federal Government level, some of which risks our national competitiveness.

In particular, BHP shares concerns of the broader business community that the Australian Government's Same Job Same Pay proposal will increase costs and reduce Australia's investment competitiveness at a time when competition for investment is fierce globally and other nations are working to become more competitive and more attractive.

Prior to the last election, we were on the record as supporting the principle of focused legislative reform to protect vulnerable and low paid workers. However, the Same Job Same Pay bill goes well and truly beyond this. The proposed changes are not about 'closing loopholes' but are the most significant and far-reaching changes to Australian workplace relations since WorkChoices.

BHP strongly opposed the Same Job Same Pay bill not only because of the damage it threatens to do to our business, but also for the hit it will have on Australia's economy, to Australian jobs and to Australia's productivity and international competitiveness.

The bill could reduce the value of any potential growth plans for a copper province of BHP assets here in South Australia by up to US$2 billion. And it risks directly impacting dividends for the 17 million Australians who hold BHP shares directly, or indirectly via superannuation.

This is not just about BHP. These concerns are shared by businesses large and small across the country, and getting these policies wrong risks impacting Australians' retirement savings.

A competitive labour market with strong links between labour costs and productivity is essential to the long-term success of our industry and the Australian economy. We will continue to engage the Australian Federal Government constructively, together with the wider business community to highlight the negative impact of these policies.

Delivering strong social value

When it comes to growth, the opportunities that we're able to access and develop cannot be realised without delivering strong social value. Social value goes hand in hand with long term shareholder value.

Our access to the best resources, markets, partners and talent is contingent on making a positive contribution to society and building strong relationships with partners, local communities, and First Nations peoples.

Our approach is disciplined and proactive, and it's delivering tangible outcomes. This year we:

- Reduced our operational greenhouse gas emissions by 11% from the year prior, and we remain on track to achieve our 2030 target to reduce operational GHG emissions by at least 30 per cent from FY2020 levels.

- We doubled our spend with Indigenous suppliers globally to more than US$330 million and here in Australia, we released our sixth Reconciliation Action Plan which was recognised with 'Elevate' status by Reconciliation Australia.
- And we further advanced female employee participation to more than 35 per cent globally – more than double from 2016 when we set our aspirational goal to achieve gender balance in our employee workforce by the end of FY2025.

Social value is fundamental to our success and future competitiveness and is an important point of differentiation from our competitors.

Creating value now, and into the future

Before I conclude, I'd like to echo Ken's thanks to Terry Bowen for his extensive contributions to the Board and the company. Terry has brought a wealth of experience and insight over his time with BHP, and I wish him the best in his future ventures.

At BHP we're focused on creating value now, and into the future. We think and plan in decades.

By 2050 the global population is projected to be around 10 billion, about two-thirds of whom will live in urban areas. These global citizens will quite rightly be seeking to improve their standard of living – raising demand for housing, better food, consumer goods, cars, infrastructure, power and utilities.

These factors, together with the energy transition, are very metals and minerals intensive. The two to four-fold increase in demand we expect for key BHP commodities over the next three decades, versus the three decades past, presents both challenge and opportunity.

BHP will continue to plan strategically, responsibly, and consistently in seeking to help meet that demand.

We will maintain our focus on operational performance, delivery, and growth. We will remain disciplined in capital allocation, as we create value and generate returns.

I am confident in the strength of our company, now and into the future, and greatly appreciate your ongoing support.

Thank you.

Dan Tsubouchi @Energy_Tidbits · 4h

#Oil 101

China fuel sale data not showing signs of weakness.

BUT 👇 @michaelwmuller reminds if stock are "*unseasonably high*", it pushes down prices, refining margins & force runs cuts.

Drop in refinery runs = lower appetite for oil imports.

@sean_evers @CrystolEnergy #OOTT

"China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting." **Mike Muller, Head Vitol Asia.**

SAF Group created transcript of comments by Mike Muller (Head, Vitol Asia) to Sean Evers (Founder & Managing Partner of Gulf Intelligence) on Gulf Intelligence's Daily Energy Markets podcast on Nov 5, 2023. https://twitter.com/gulf_intel/status/1721052973919506582

Items in "italics" are SAF Group created transcript.,

At 11:45 min mark, Evers "*... what's your outlook now as China moves in to the winter peak demand window and the China new year coming up in January?*" Muller "*... we have to remind ourself this is the time of year when demand in Asia peaks but demand in the western hemisphere tends to ebb to a low because of less driving activity, winter conditions, etc. But what we see going on in China is quite interesting because the fuel sale data on a weekly basis does not really show evident signs of economic weakness. Diesel sales are in line with expectations. Jet demand is indeed robust, exceeding expectations. Singapore Airlines just laid on five extra flights a week from Singapore to China, they don't tend to do that unless they're confident that there will be passengers in their seats. And it's only really gasoline that has shown a steeper than expected dip in October but there is a reason for that – there was a public holiday Golden Week. But the one thing that has happened to China that is quite notable is that refining margins have dropped to the lowest levels we have seen in a very long time and certainly the lowest level this year. In some cases, bordering on the negative. So why are Chinese margins negative. I think the explanation is that runs in the third quarter, which were a million barrels a day more perhaps than same time last year when we still had Covid, so always difficult to compare. But they were likely a response to high demand expectations that were possibly unreasonably high and, at the same time, there was a bit of destocking going on. And as a consequence now, we've seen all this translate into higher than expected stocks. And if the stocks are unseasonably high, the only consequence is that you push domestic prices down, you push refining margins down and you force run cuts. So it goes without saying that China will either need to continue running its refineries and building stock at low margins or that there will be a drop in runs and that will manifest itself into lower appetite for crude. And that's highly visible since China is such a significant global importer of crude oil. I think those are the signs of softness that the market's been detecting.*

Prepared by SAF Group https://safgroup.ca/news-insights/

1 · 4 · 11 · 3K

Dan Tsubouchi @Energy_Tidbits · 22h

Still no idea when Kurdistan #Oil exports via Turkey will restart.

👇 @KarwanFaidhiDri reports Kurd Pres Barazani "*Now Baghdad is really the issue because Turkey has announced that it is ready and willing to accept*" resuming exports. Still outstanding Erbil/Baghdad issues #OOTT

> Karwan Faidhi Dri @KarwanFaidhiDri · Nov 3
>
> President Barzani in Paris:
>
> 🔴Iraq is the main obstacle before the resumption of KRG oil exports
>
> 🔴 We support a two-state solution for the Israel-Palestine issue...
> Show more

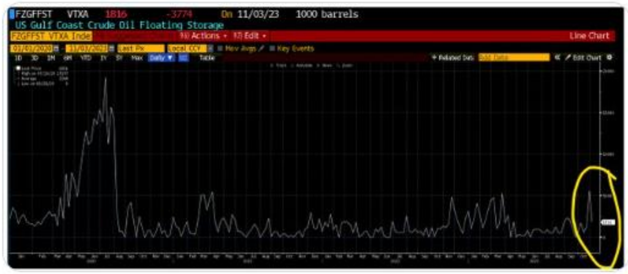
5 · 7 · 5.9K

SAF

Dan Tsubouchi @Energy_Tidbits · Nov 4

No surprise, floating #Oil storage in Gulf Coast was back down to 1.82 mmb at Nov 3. See👇 10/28 tweet last week's 6.64 mmb as originally posted on Oct 28 looked to be set for either a downward revision or it was an unusual one-time spike.

Thx @vortexa @business
#OOTT



SAF **Dan Tsubouchi** @Energy_Tidbits · Oct 28

Here's why floating #Oil storage in Gulf Coast is either set for downward revision next week or it's an unusual one-time spike.

Other than during Covid or some unusual refinery ...
Show more

8 23 7.6K

SAF

Dan Tsubouchi @Energy_Tidbits · Nov 4

#Oil bulls should like this.

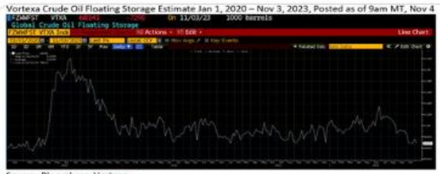
Floating oil storage 68.14 mmb at 11/03.

Only been 6 wks below 70 mmb since Covid, 4 of which in last 5 wks.

Down 65 mmb vs recent 06/23/23 peak 133,84 mmb

Thx @Vortexa @business
#OOTT

Vortexa Crude Oil Floating Storage Estimate Jan 1, 2020 – Nov 3, 2023, Posted as of 9am MT, Nov 4



Source: Bloomberg, Vortexa

Posted Nov 4, 9am MT		Oct 28, 9am MT		Oct 21, 9am MT	
FZWWFST VTXA Inde 01/01/2020 - 11/03/2023		FZWWFST VTXA Inde 01/01/2020 - 10/27/2023		FZWWFST VTXA Inde 01/01/2020 - 10/20/2023	
Date	FZWWFST VT... Last Px	Date	FZWWFST VT... Last Px	Date	FZWWFST VT... Last Px
Fr 11/03/2023	68141	Fr 10/27/2023	75267	Fr 10/20/2023	64270
Fr 10/27/2023	75439	Fr 10/20/2023	71176	Fr 10/13/2023	71763
Fr 10/20/2023	67737	Fr 10/13/2023	68984	Fr 10/06/2023	69549
Fr 10/13/2023	68664	Fr 10/06/2023	66231	Fr 09/29/2023	87637
Fr 10/06/2023	68333	Fr 09/29/2023	85578	Fr 09/22/2023	93341
Fr 09/29/2023	84961	Fr 09/22/2023	90415	Fr 09/15/2023	91699
Fr 09/22/2023	90856	Fr 09/15/2023	90585	Fr 09/08/2023	93267
Fr 09/15/2023	90070	Fr 09/08/2023	92785	Fr 09/01/2023	91364
Fr 09/08/2023	92060	Fr 09/01/2023	91444	Fr 08/25/2023	86721
Fr 09/01/2023	90638	Fr 08/25/2023	86333	Fr 08/18/2023	103.001k
Fr 08/25/2023	85753	Fr 08/18/2023	102.97k	Fr 08/11/2023	108.69k

Source: Bloomberg, Vortexa

Vortexa Crude Oil Floating Storage by Region (mmb)				Original Posted	Recent Peak	
Region	Nov 3/23	Oct 27/23	WoW	Oct 27/23	Jun 23/23	Nov 3 vs Jun 23
Asia	34.01	37.59	-3.58	40.91	74.57	-40.56
Europe	3.99	6.17	-2.18	6.22	6.52	-2.53
Middle East	5.30	5.10	0.20	5.32	7.15	-1.85
West Africa	6.63	8.47	-1.84	7.20	7.87	-1.24
US Gulf Coast	1.82	5.59	-3.77	6.64	0.97	0.85
Other	16.39	12.52	3.87	8.98	36.86	-20.47
Global Total	68.14	75.44	-7.30	75.27	133.96	-65.80

Vortexa crude oil floating storage posted on Bloomberg 9am MT on Nov 4
Source: Vortexa, Bloomberg

Prepared by SAF Group: https://safgroup.ca/news-insights/

4 22 101 14K

Dan Tsubouchi @Energy_Tidbits · Nov 3

OOPS!

Did Trudeau not consider the 👇 @nationalpost Gary Clement cartoon scenario?

Or were the Liberals just being "too smart by half" by only pausing carbon tax on home heating oil that primarily benefited Atlantic provinces?

#OOTT #EnergyTransition

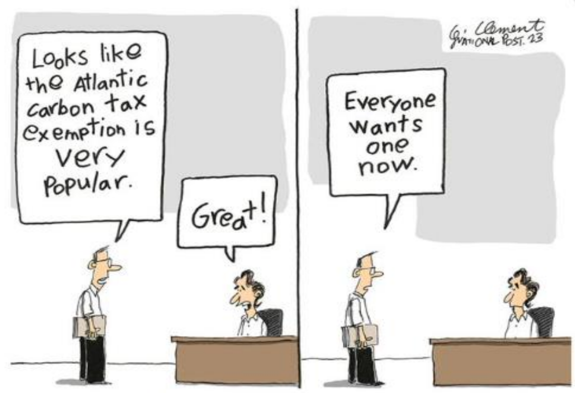


PHOTO BY GARY CLEMENT/NATIONAL POST

> **Dan Tsubouchi** @Energy_Tidbits · Nov 3
>
> 
>
> ICYMI.
>
> NDP to back @PierrePoilievre motion to exempt #CarbonTax on all home heating , not just Liberals exemption only on heating oil predominantly being ...
> Show more

2 · 3 · 15 · 6.3K

Dan Tsubouchi @Energy_Tidbits · Nov 3

#Shell CEO #LNGCanada 1.8 bcfd Phase 1 update.

#CoastalGasLink completed the "golden weld" ie. 100% pipe installation.

LNG Canada recently passed 85% completion threshold.

"*expect to have a startup by the middle of this decade*"

Sounds like 1st LNG next 12 mths or so!

...

Show more

Bloomberg Transcript

Q - Biraj Borkhataria (BIO 17234528 <GO>)

Hi, thanks for taking my questions. The first one's on the LNG business. You cited that you expect Prelude to come on towards the back end of the fourth quarter, and then I guess you've exercised some caution on Egypt. I was wondering, typically, you walk into the winter with net length in your portfolio, so you're able to optimize and take advantage of volatility, which is typically higher.

I was wondering how you think you're, do you have the net length in the portfolio for the next couple of quarters? Do you think you have the capacity to be able to optimize as you see fit? And then the second question is on a project specific on LNG Canada. This is your largest capital project in the portfolio. polio. And if you look at some of the press reports, it seems like everything is gearing up to sort of start up in maybe late 2024.

So, can you confirm when you expect that project to start up? And if you're not willing to commit to a year or timeline, I was wondering where you see the biggest areas of uncertainty?

A - Wael Sawan (BIO 17559980 <GO>)

Thank you. Super. Let me take the second question and then go to you, Sinead, for the first one. LNG Canada, we have indeed been pleased with the progress that has been made.

You will have seen early October when TCE, the pipeline developer and Coastal Gas Link, the pipeline itself has in essence completed the golden weld, the final weld on that pipeline, and since then have also hydro tested the pipeline successfully. So, very pleased with that because as you know, that was very much on our watch. The second bit then is more the facilities at site. that the joint venture announced not too long ago that they had just passed the 85% completion threshold.

Page 6 of 24

Company Name: Shell PLC
Company Ticker: SHEL LN Equity
Date: 2023-11-02

INITIAL DRAFT

And so that all continues to go according to plan. We're not announcing anything new. We continue to say today that we expect to have a startup by the middle of this decade. What could go wrong? I mean, typically teething issues in the startup of the plant, but that is what we are very focused on.

What we have said to the joint venture is our focus is not just on the first cargo and when it starts up, it's on when can we get to the 100th cargo because that will show us the stability of the overall plant. And that's what the team is focused on. And so, so far we've seen good quality or the joint venture has seen good quality overall in the materials that we have received, the equipment was received. And so far the progress has been as we

12 · 40 · 9.5K

Dan Tsubouchi @Energy_Tidbits · 9h

ICYMI.

NDP to back @PierrePoilievre motion to exempt #CarbonTax on all home heating , not just Liberals exemption only on heating oil predominantly being used in Atlantic Canada.

Looks like NDP is starting to position for next election.

Thx @CathLvesque
#OOTT #EnergyTransition

'The adults in the room': NDP will back Conservative motion to exempt carbon tax from all home heating

Catherine Lévesque

1 · 1 · 3 · 1K

Dan Tsubouchi @Energy_Tidbits · 10h

#Maersk CEO.

"*Our industry is facing a new normal with subdued demand, prices back in line with historical levels and inflationary pressure on our cost base*"

Also note "*slower steaming*" ie. saves fuel consumption/reduces emissions.

#OOTT


terim-report-q3-2023

23

ller - Maersk A/S is hereby enclosed.

emand, prices back in line with historical levels and inflationary p
drops and no noticeable uptick in ship recycling or idling. Give
financial performance. While continuously streamlining our org
pply chain needs while pursuing growth opportunities across ou

7 1650

1

2 4 2K

SAF

Dan Tsubouchi @Energy_Tidbits · Nov 2

Suez Canal 101

- Houthis to continue missile/drones at ISR
- IDF says Houthi missiles/drones shot down OVER the Red Sea.
- IDF says increasing navy ships IN Red Sea.
- US/ISR ships aren't down at Bab el Mandeb

👇 Surely added risk to tankers/cargo in Red Sea/Mandeb & Suez?
#OOTT

> SAF **Dan Tsubouchi** @Energy_Tidbits · Oct 28
>
> Suez Canal 101
>
> Tanker/cargo ships thru the Suez have to go thru Red Sea & Bab el Mandeb.
>
> ...
>
> Show more

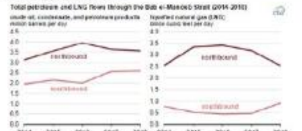
https://www.eia.gov/todayinenergy/detail.php?id=41073
AUGUST 27, 2019

The Bab el-Mandeb Strait is a strategic route for oil and natural gas shipments

Source: U.S. Energy Information Administration

The Bab el-Mandeb Strait is a sea route chokepoint between the Horn of Africa and the Middle East, connecting the Red Sea to the Gulf of Aden and Arabian Sea. Most exports of petroleum and natural gas from the Persian Gulf that transit the Suez Canal or the SUMED Pipeline pass through both the Bab el-Mandeb and the Strait of Hormuz.
Chokepoints are narrow channels along widely used global sea routes that are critical to global energy security. The Bab el-Mandeb Strait is 18 miles wide at its narrowest point, limiting tanker traffic to two 2-mile-wide channels for inbound and outbound shipments. Closure of the Bab el-Mandeb Strait could keep tankers originating in the Persian Gulf from transiting the Suez Canal or reaching the SUMED Pipeline, forcing them to divert around the southern tip of Africa, which would increase transit time and shipping costs.
In 2018, an estimated 6.2 million barrels per day (b/d) of crude oil, condensate, and refined petroleum products flowed through the Bab el-Mandeb Strait toward Europe, the United States, and Asia, an increase from 5.1 million b/d in 2014. Total petroleum flows through the Bab el-Mandeb Strait accounted for about 9% of total seaborne-traded petroleum (crude oil and refined petroleum products) in 2017. About 3.6 million b/d moved north toward Europe; another 2.6 million b/d flowed in the opposite direction mainly to Asian markets such as Singapore, China, and India.

Total petroleum and LNG flows through the Bab el-Mandeb Strait (2014-2018)



Before 2015, volumes of liquefied natural gas (LNG) passing through the Bab el-Mandeb Strait matched those passing through the Suez Canal because the Red Sea did not have any LNG infrastructure. In 2015, both Jordan and Egypt began importing small volumes of LNG into Red Sea ports, and these countries' imports of LNG peaked in 2016 at 1.4 billion cubic feet per day, 80% of which was delivered through the Bab el-Mandeb Strait.
More recently, as new natural gas fields in Egypt have come online, the need for Egypt to import LNG has decreased. Like flows to Egypt, total northbound flows of LNG via the Bab el-Mandeb have also decreased since 2016 as northbound flows to other destinations have remained fairly constant.

8 · 23 · 6.5K

SAF

Dan Tsubouchi @Energy_Tidbits · Nov 2

Not #EVs!
#Toyota recalls 1.854 mm RAV4's
"*replacement 12-volt batteries ...smaller top dimensions .. not tightened correctly, the battery could move when the vehicle is driven with forceful turns...could cause the positive battery terminal ... increasing the risk of a fire*"

https://pressroom.toyota.com/toyota-recalls-certain-2013-2018-toyota-rav4-models/

Toyota Recalls Certain 2013-2018 Toyota RAV4 Models

November 01, 2023
PLANO, Texas (Nov. 01, 2023) – Toyota is conducting a safety recall involving certain 2013-2018 model year Toyota RAV4 vehicles in the United States. Approximately 1,854,000 vehicles are involved in this recall.

Some replacement 12-volt batteries of the size specified for the subject vehicles have smaller top dimensions than others. If a small-top battery is used for replacement and the hold-down clamp is not tightened correctly, the battery could move when the vehicle is driven with forceful turns. The movement could cause the positive battery terminal to contact the hold-down clamp and short circuit, increasing the risk of a fire.

Toyota is currently preparing the remedy. When the remedy is available, Toyota dealers will replace the battery hold-down clamp, battery tray, and positive terminal cover with improved ones at no cost to owners. For all involved vehicles, Toyota will notify customers by late December 2023.

Information about automotive recalls, including but not limited to the list of involved vehicles, is current as of today's filing date and is subject to change thereafter. To see if your vehicle is involved in a safety recall visit Toyota.com/recall or nhtsa.gov/recalls and enter your Vehicle Identification Number (VIN) or license plate information.

For any additional questions, Toyota customer support is also available by calling the Toyota Brand Engagement Center (1-800-331-4331).

1 · 2 · 995

Dan Tsubouchi @Energy_Tidbits · Nov 2

Positive China mobility indicator.

China Baidu city-level road congestion for Oct 2023 for Top 15 cities were 116% of Oct 2021 levels.

Oct 2022 was 90% of Oct 2021 levels as Q4/22 still had Covid restrictions.

Thx @BloombergNEF. #OOTT

4 9 2.4K

Dan Tsubouchi @Energy_Tidbits · Nov 1

For those, like me, who weren't near their laptops. At 830am MT, @EIAgov released its #Oil #Gasoline #Distillates inventory as of Oct 27. Table below compares EIA data vs @business expectations and vs @APIenergy yesterday. #OOTT

Oil/Products Inventory Oct 27: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	0.77	1.80	1.35
Gasoline	0.07	-0.13	-0.36
Distillates	-0.79	-1.00	-2.48
	0.05	0.67	-1.49

Note: Oil is commercial so builds in no change in SPR for the Oct 27 week
Note: Included in the oil data, Cushing had a 0.27 mmb build for Oct 27 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

1 4 1.3K

Dan Tsubouchi @Energy_Tidbits · Nov 1

BHP CEO "*A massive wave of capital investment will be required to meet demand for these minerals*" re minerals for #EnergyTransition.

#NatGas is needed for way longer as Energy Transition is taking way longer, costing way more.

#OOTT

bhp.com/-/media/docume...

2 11 1.9K

Dan Tsubouchi @Energy_Tidbits · Oct 31

China manufacturing back to contraction.

China Caixin Manufacturing PMI Oct 49.5 (est 50.8) vs Sep 50.6, Aug 51.0, Jul 49.2, Jun 50.5.

See 👇 negatives across the board - manufacturing production, new export orders down, business confidence, etc

Thx @SPGlobalPMI
#OOTT

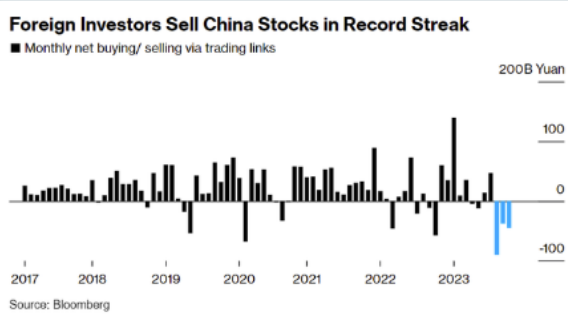
3 4 2K

Dan Tsubouchi @Energy_Tidbits · Oct 31

Foreign investors continue net selling of China stocks.

See 👇 Foreign funds net sellers of $6.1b worth of mainland China shares in Oct. 3-month net outflow of $23.5b and "*threatens to turn this year's flow into*
negative territory"

Thx @business John Liu, April Ma.
#OOTT



– With assistance by John Liu and April Ma

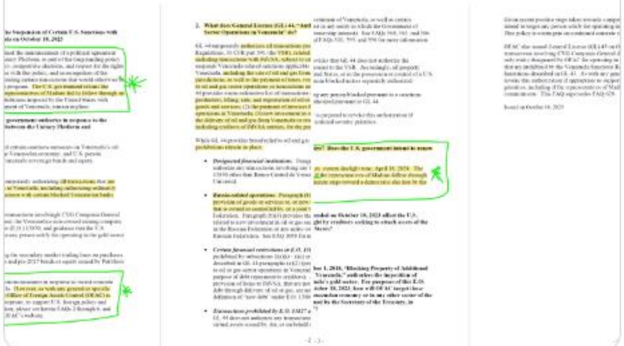
2 7 2.6K

Dan Tsubouchi @Energy_Tidbits · Oct 31

Also. would expect it to be hard for companies to drive ahead and spend capital until Biden Admin gives an indication if they will grin and bear it to try to keep oil flowing in 2024 election year.

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Oct 31
>
> How can #Biden not rescind 10/18 license for reopening VEN #Oil #NatGas.
>
> "*The U.S. government retains the authority to rescind authorizations should the representatives of Maduro fail to follow through on their ...*
> Show more



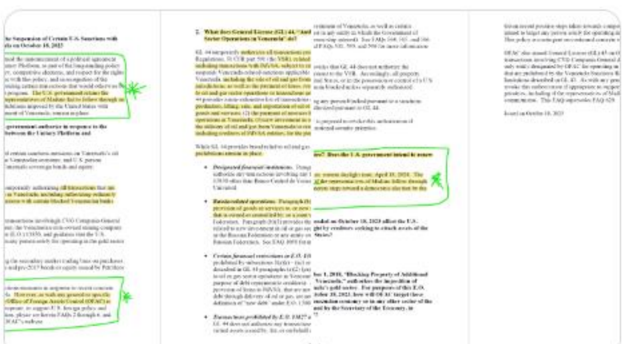
1 7 2.5K

Dan Tsubouchi @Energy_Tidbits · Oct 31

How can #Biden not rescind 10/18 license for reopening VEN #Oil #NatGas.

"*The U.S. government retains the authority to rescind authorizations should the representatives of Maduro fail to follow through on their commitments...*"

Assume US also looking at $CVX VEN license. #OOTT



> **Stephen Wicary** @wicary · Oct 30
>
> Venezuela's electoral court says it is suspending "all effects" of the opposition primaries days after Nicolás Maduro called the vote a fraud, @inaitriago reports bloomberg.com/news/articles/...

1 8 10 9.1K

Dan Tsubouchi @Energy_Tidbits · Oct 31

Suez Canal 101.

Houthis say they have launched ballistic missiles/drones towards Israel territory.

reminder any tankers, cargo ships thru #SuezCanal have to also go thru Red Sea and Bab el Mandeb

See 👇 tweet twitter.com/Energy_Tidbits...

Anadolu English @anadoluagency · Oct 31

#BREAKING Yemen's Houthi rebels say they fired barrages of ballistic missiles, drones towards Israeli territory in response to Gaza assault

6 22 4.7K

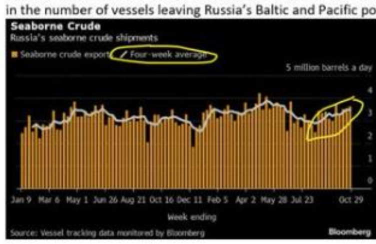
Dan Tsubouchi @Energy_Tidbits · Oct 31

Russia keeps shipping more #Oil than committed.

See 👇 @JLeeEnergy great weekly recap.
10/29 wk: +110 kbd to 3.64 mmbd
brings 4-wk ave to ~200 kbd over committed.

RUS refinery maintenance ending so should reduce shipments
#OOTT

monitored by Bloomberg show. Despite that gain, the less volatile four-week average edged lower to 3.48 million barrels a day, down by about 20,000 barrels a day from the period to Oct. 22. The weekly advance reflected a jump in shipments from Novorossiysk in the Black Sea, which was partly offset by a drop in the number of vessels leaving Russia's Baltic and Pacific ports.



Deputy Prime Minister Alexander Novak said in early August that Moscow would prolong export restrictions at a reduced level of 300,000 barrels a day below their May-June average until the end of the year. Bloomberg calculations indicate that shipments through ports should be running now at about 3.28 million barrels a day.

Weekly shipments exceeded Moscow's target by the most in four weeks, overshooting by about 360,000 barrels a day. Despite edging lower, four-week average volumes exceeded it by almost 200,000 barrels a day in the most recent period.

1 7 11 3.7K

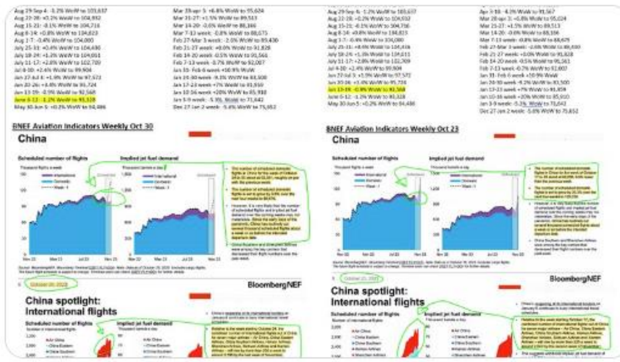
Dan Tsubouchi @Energy_Tidbits · Oct 30

Negative China economy indicator.

1st. China scheduled domestic flights for Oct 24-30 of 92,361, which is back to Jun 6-12 week.

2nd. Big 26% cut in lookahead next 4-wks flights to 95,675 vs last wk's next 4-wks of 129,038.

Thx @BloombergNEF Claudio Lubis
#OOTT



1 3 9 3.5K

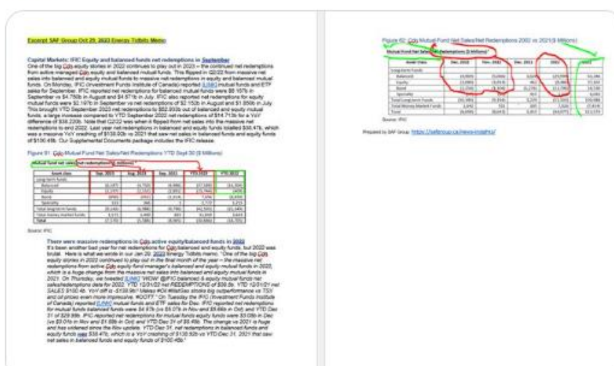
Dan Tsubouchi @Energy_Tidbits · Oct 29

WOW!

YTD 09/30/23: @ific balanced & equity mutual funds net redemptions $52.9b.

Continuation of trend that started in Q2/22. See 👇 01/26/23 tweet.

#OOTT



Dan Tsubouchi @Energy_Tidbits · Jan 26

WOW!

@IFIC balanced & equity mutual funds net sales/redemptions data for 2022.

...

Show more

1 1 1 2.9K