Energy Tidbits

Biden’s Team Messages Prepared to Give on “Details” to Get JCPOA Done

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Table 1. Summary of natural gas supply and disposition in the United States, 2016-2021
(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]
2016 Total	**32,592**	**28,400**	**1,808**	**26,592**	**57**	**671**	**340**	**-216**	**27,444**
2017 Total	**33,292**	**29,238**	**1,897**	**27,341**	**66**	**-121**	**254**	**-400**	**27,140**
2018 Total	**37,326**	**33,009**	**2,235**	**30,774**	**69**	**-719**	**314**	**-300**	**30,139**
2019									
January	3,377	2,975	208	2,767	5	-74	722	4	3,424
February	3,057	2,705	189	2,516	5	-97	580	16	3,019
March	3,383	3,009	210	2,798	5	-121	253	-8	2,928
April	3,315	2,926	205	2,721	5	-132	-389	7	2,212
May	3,424	3,046	213	2,833	5	-161	-480	-63	2,134
June	3,300	2,956	207	2,750	5	-159	-439	-37	2,119
July	3,396	3,072	215	2,857	5	-163	-260	-45	2,394
August	3,448	3,146	220	2,926	5	-165	-292	-40	2,434
September	3,397	3,057	214	2,843	5	-186	-427	-28	2,206
October	3,552	3,186	223	2,963	5	-215	-353	-94	2,307
November	3,509	3,134	219	2,915	5	-218	156	-74	2,784
December	3,623	3,235	226	3,009	5	-226	428	-45	3,171
Total	**40,780**	**36,447**	**2,548**	**33,899**	**61**	**-1,916**	**-503**	**-408**	**31,132**
2020									
January	3,597	3,194	240	2,954	6	-248	581	8	3,300
February	3,363	2,985	224	2,761	5	-216	545	-53	3,041
March	3,582	3,196	240	2,956	6	-284	53	-24	2,707
April	3,374	3,012	226	2,786	5	-231	-311	-8	2,241
May	3,285	2,927	220	2,707	5	-209	-454	18	2,067
June	3,217	2,873	216	2,657	5	-151	-363	-18	2,131
July	3,374	3,021	227	2,795	5	-139	-165	-7	2,489
August	3,350	3,012	226	2,786	5	-148	-232	-9	2,401
September	3,265	2,918	219	2,699	5	-221	-329	18	2,172
October	3,364	2,992	225	2,767	5	-282	-96	-74	2,320
November	3,352	2,985	224	2,761	5	-316	-6	-8	2,435
December	3,490	3,089	232	2,857	5	-287	597	-5	3,168
Total	**40,614**	**36,202**	**2,717**	**33,485**	**63**	**-2,732**	**-180**	**-164**	**30,472**
2021									
January	E3,506	E3,110	233	E2,877	5	-279	707	-17	3,293
February	E2,924	E2,586	172	E2,415	6	-152	781	-8	3,042
March	E3,482	E3,092	231	E2,861	5	-357	59	43	2,612
April	E3,409	E3,036	239	E2,797	5	-356	-174	-34	2,238
May	E3,510	E3,130	247	E2,883	3	-373	-416	-5	2,093
June	E3,391	E3,036	239	E2,797	5	-331	-248	-8	2,214
July	E3,491	E3,151	247	E2,904	5	-338	-170	-14	2,387
August	E3,531	E3,173	251	E2,922	4	-343	-159	-15	2,410
September	RE3,413	RE3,050	241	RE2,809	4	-315	R-391	R3	2,110
October	RE3,594	RE3,219	257	RE2,962	5	-317	-361	R-52	2,238
November	E3,549	E3,158	251	E2,908	5	-315	132	-70	2,661
2021 11-Month	**E37,801**	**E33,742**	**2,607**	**E31,135**	**54**	**-3,477**	**-240**	**-176**	**27,296**
2020 11-Month	**37,124**	**33,114**	**2,485**	**30,628**	**58**	**-2,446**	**-777**	**-159**	**27,304**
2019 11-Month	**37,158**	**33,212**	**2,322**	**30,890**	**55**	**-1,690**	**-931**	**-363**	**27,961**

[a] Monthly natural gas plant liquid (NGPL) production, gaseous equivalent, is derived 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] Supplemental gaseous fuels data are collected only on an annual basis except for the Dakota Gasification Co. coal gasification facility which provides data each month. The ratio of annual supplemental fuels (excluding Dakota Gasification Co.) to the sum of dry gas production, net imports, and net withdrawals from storage is calculated. This ratio is applied to the monthly sum of these three elements. The Dakota Gasification Co. monthly value is added to the result to produce the monthly supplemental fuels estimate.

[d] Monthly and annual data for 2016 through 2020 include underground storage and liquefied natural gas storage. Data for January 2021 forward include underground storage only. See Appendix A, Explanatory Note 5, for 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): -24 for 2020; -8 for 2019; -12 for 2018; 14 for 2017; and 70 for 2016. See Appendix A, Explanatory Note 7, for full discussion.

[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.

Notes: Data for 2016 through 2019 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.

Sources: 2016-2020: U.S. Energy Information Administration (EIA), *Natural Gas Annual 2020*. January 2021 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, *Natural Gas Imports and Exports*. See Table 7 for detailed source notes for Marketed Production. See Appendix A, Notes 3 and 4, for discussion of computation and estimation procedures and revision policies.

Table 5. U.S. natural gas exports, 2019-2021

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

	2021 11-Month YTD	2020 11-Month YTD	2019 11-Month YTD	2021 November	October	September	August	July
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	828,556	818,142	862,741	85,136	62,464	72,023	71,586	68,264
Mexico	1,988,148	1,826,232	1,714,021	165,546	184,539	178,823	193,788	197,702
Total Pipeline Exports	**2,816,704**	**2,644,374**	**2,576,762**	**250,683**	**247,003**	**250,846**	**265,374**	**265,966**
LNG								
Exports								
By Vessel								
Antigua and Barbuda	4	0	0	2	0	3	0	0
Argentina	81,371	15,068	39,293	0	0	1,950	14,363	22,798
Bahamas	450	220	145	34	36	43	56	46
Bangladesh	37,734	10,660	0	0	0	3,276	7,085	0
Barbados	263	216	191	27	25	33	27	31
Belgium	5,584	31,946	13,490	0	0	0	0	0
Brazil	283,468	81,899	54,298	10,715	40,769	38,282	34,204	39,637
Chile	118,943	70,822	83,150	2,956	6,364	7,929	16,262	19,913
China	432,616	168,875	6,851	50,228	42,202	48,584	51,662	42,222
Colombia	2,247	4,626	6,518	0	0	436	919	0
Croatia	33,015	0	0	9,416	0	0	2,980	3,299
Dominican Republic	47,126	21,050	9,833	2,780	5,619	0	5,901	1,806
Egypt	0	0	0	0	0	0	0	0
France	136,889	86,485	103,032	10,021	9,333	6,578	7,111	0
Greece	34,403	45,021	6,891	7,629	1,515	799	3,607	6,651
Haiti	133	101	30	8	17	10	24	8
India	193,015	114,160	84,391	14,807	10,548	23,941	20,592	13,090
Indonesia	2,051	0	0	456	477	1,118	0	0
Israel	8,906	15,834	0	0	0	2,855	0	0
Italy	34,210	68,453	55,892	0	0	0	3,401	6,826
Jamaica	25,163	14,678	11,457	715	1,858	2,931	2,907	0
Japan	330,650	233,668	179,638	33,947	37,666	10,290	19,979	24,895
Jordan	0	6,872	32,332	0	0	0	0	0
Kuwait	34,476	17,293	10,308	0	6,193	10,333	3,298	0
Lithuania	30,919	22,587	0	0	0	3,282	1,677	6,469
Malaysia	0	0	3,698	0	0	0	0	0
Malta	5,427	2,648	413	0	0	2,498	0	0
Mexico	15,200	34,408	133,675	0	1,088	0	0	758
Netherlands	150,985	82,257	67,956	8,829	17,157	10,424	7,347	10,597
Nicaragua	1	0	0	0	0	0	0	1
Pakistan	45,818	36,934	23,535	2,490	3,138	9,642	3,319	13,428
Panama	8,436	12,493	10,221	0	911	0	1,390	0
Poland	49,161	29,867	31,030	7,068	3,270	0	0	6,619
Portugal	56,235	33,211	46,997	5,380	10,459	3,696	6,382	3,296
Singapore	24,555	28,341	28,065	3,728	0	0	0	3,449
South Korea	415,282	276,609	231,886	30,787	33,836	31,375	50,101	39,314
Spain	182,483	186,383	152,811	22,821	35,638	31,274	23,068	8,630
Taiwan	87,316	51,894	23,739	3,404	7,123	5,789	6,728	20,653
Thailand	14,548	32,622	6,635	0	0	0	3,707	0
Turkey	150,429	103,769	30,075	47,330	19,385	24,176	0	5,591
United Arab Emirates	0	10,110	20,561	0	0	0	0	0
United Kingdom	134,730	129,822	88,608	30,648	3,302	3,099	0	0
By Truck								
Canada	108	2	25	8	8	19	18	16
Mexico	1,102	776	1,012	160	182	150	147	97
Re-Exports								
By Vessel								
Argentina	0	2,164	0	0	0	0	0	0
Brazil	0	82	0	0	0	0	0	0
Japan	0	387	221	0	0	0	0	0
South Korea	0	387	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG Exports	**3,215,455**	**2,085,700**	**1,598,901**	**306,397**	**298,119**	**284,813**	**298,262**	**300,143**
CNG								
Canada	211	357	238	0	0	0	14	16
Total CNG Exports	**211**	**357**	**238**	**0**	**0**	**0**	**14**	**16**
Total Exports	**6,032,369**	**4,730,431**	**4,175,900**	**557,080**	**545,121**	**535,660**	**563,650**	**566,125**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2019-2021

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

	2021						2020	
	June	May	April	March	February	January	Total	December
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	69,528	70,561	74,567	91,301	78,198	84,927	902,449	84,307
Mexico	198,329	192,625	183,004	183,051	137,381	173,360	1,990,809	164,577
Total Pipeline Exports	**267,857**	**263,186**	**257,571**	**274,352**	**215,579**	**258,287**	**2,893,258**	**248,884**
LNG								
Exports								
By Vessel								
Antigua and Barbuda	0	0	0	0	0	0	0	0
Argentina	19,312	16,226	4,485	2,238	0	0	15,068	0
Bahamas	48	45	46	39	29	28	257	36
Bangladesh	3,493	6,948	10,219	3,566	0	3,148	10,660	0
Barbados	22	19	30	14	19	17	241	25
Belgium	0	2,100	0	3,484	0	0	31,946	0
Brazil	32,293	19,726	11,615	21,977	13,118	21,132	111,826	29,927
Chile	0	17,598	10,293	21,320	6,524	9,784	80,615	9,793
China	42,319	37,731	46,837	28,476	3,415	38,940	214,401	45,525
Colombia	0	0	892	0	0	0	4,626	0
Croatia	2,923	3,364	3,666	7,367	0	0	3,275	3,275
Dominican Republic	4,670	5,283	2,905	5,577	5,689	6,895	26,050	5,000
Egypt	0	0	0	0	0	0	0	0
France	3,683	11,926	36,120	33,678	14,851	3,587	90,237	3,752
Greece	0	6,796	0	6,805	0	600	48,403	3,382
Haiti	18	12	3	10	11	12	118	17
India	16,503	28,259	13,752	17,381	13,776	20,367	124,402	10,241
Indonesia	0	0	0	0	0	0	0	0
Israel	0	0	3,225	2,826	0	0	15,834	0
Italy	3,425	2,923	6,896	10,739	0	0	68,453	0
Jamaica	2,927	2,925	2,370	2,458	2,365	3,708	17,052	2,374
Japan	39,783	25,058	28,756	27,673	18,271	64,331	287,672	54,004
Jordan	0	0	0	0	0	0	6,872	0
Kuwait	7,126	0	3,705	3,821	0	0	17,293	0
Lithuania	3,285	3,049	3,078	3,228	6,851	0	28,879	6,291
Malaysia	0	0	0	0	0	0	0	0
Malta	0	0	2,928	0	0	0	2,648	0
Mexico	0	0	0	0	13,354	0	34,408	0
Netherlands	3,030	26,611	17,060	24,204	22,777	2,949	85,573	3,316
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	3,376	0	3,323	3,421	0	3,682	36,934	0
Panama	0	2,341	0	3,279	0	516	12,764	271
Poland	10,635	3,581	7,382	3,507	7,099	0	36,900	7,033
Portugal	5,538	10,765	7,358	0	3,360	0	36,922	3,711
Singapore	0	3,089	7,297	3,303	0	3,688	28,341	0
South Korea	55,918	46,033	21,683	32,203	18,094	55,936	316,227	39,617
Spain	7,833	5,234	22,974	13,900	3,733	7,377	199,966	13,583
Taiwan	3,097	10,157	6,594	13,450	0	10,319	64,363	12,470
Thailand	0	3,453	7,388	0	0	0	32,622	0
Turkey	0	3,017	0	3,619	20,652	26,659	123,957	20,188
United Arab Emirates	0	0	0	0	0	0	10,110	0
United Kingdom	0	10,586	13,877	17,440	34,343	21,436	160,199	30,378
By Truck								
Canada	7	18	15	0	0	0	10	8
Mexico	105	48	48	19	63	83	822	46
Re-Exports								
By Vessel								
Argentina	0	0	0	0	0	0	2,164	0
Brazil	0	0	0	0	0	0	82	0
Japan	0	0	0	0	0	0	387	0
South Korea	0	0	0	0	0	0	387	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG Exports	**271,368**	**314,922**	**306,818**	**321,023**	**208,394**	**305,196**	**2,389,963**	**304,263**
CNG								
Canada	27	25	29	36	32	32	386	29
Total CNG Exports	**27**	**25**	**29**	**36**	**32**	**32**	**386**	**29**
Total Exports	**539,252**	**578,132**	**564,418**	**595,411**	**424,004**	**563,515**	**5,283,607**	**553,176**

See footnotes at end of table.

Table 5

Table 5. U.S. natural gas exports, 2019-2021

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

								2020
	November	October	September	August	July	June	May	April
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	81,358	72,833	62,211	60,810	71,778	66,516	67,752	71,722
Mexico	166,135	185,799	182,068	185,867	181,152	162,927	145,242	138,544
Total Pipeline Exports	**247,493**	**258,632**	**244,279**	**246,677**	**252,930**	**229,442**	**212,994**	**210,266**
LNG								
Exports								
By Vessel								
Antigua and Barbuda	0	0	0	0	0	0	0	0
Argentina	0	0	0	2,249	2,218	2,229	8,372	0
Bahamas	31	25	20	21	15	18	20	23
Bangladesh	0	0	0	0	3,614	0	3,406	0
Barbados	15	17	14	14	15	20	20	15
Belgium	3,633	3,285	0	0	0	0	1,348	3,324
Brazil	30,191	22,427	0	3,520	0	0	0	0
Chile	3,252	6,836	3,277	7,428	1,515	3,313	11,068	14,098
China	45,083	35,115	11,245	13,699	10,358	0	14,535	21,140
Colombia	0	0	2,548	550	0	0	0	0
Croatia	0	0	0	0	0	0	0	0
Dominican Republic	5,106	5,909	0	2,772	0	0	2,554	1,838
Egypt	0	0	0	0	0	0	0	0
France	3,390	6,639	0	0	0	0	9,546	16,336
Greece	3,543	0	7,027	0	6,544	1,076	3,430	3,233
Haiti	11	9	8	11	8	7	10	8
India	10,299	17,762	10,514	10,319	7,404	10,100	10,534	16,674
Indonesia	0	0	0	0	0	0	0	0
Israel	0	0	3,041	3,001	3,317	3,277	0	0
Italy	3,083	0	0	6,734	3,232	12,998	6,452	3,135
Jamaica	0	2,514	2,610	0	0	0	0	5,770
Japan	32,967	31,554	6,855	22,541	10,618	21,836	13,729	18,387
Jordan	0	0	3,578	0	0	0	3,294	0
Kuwait	0	3,603	3,508	6,886	0	0	0	3,297
Lithuania	3,621	6,191	3,308	0	0	3,049	3,473	2,945
Malaysia	0	0	0	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0
Mexico	3,056	7,398	3,285	3,701	0	0	0	0
Netherlands	6,684	3,603	6,671	0	6,746	6,870	6,826	10,305
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	3,436	10,009	9,853	3,412	0	0	0	3,334
Panama	1,448	433	3,228	0	0	0	3,070	0
Poland	0	3,157	0	0	0	3,385	6,258	3,523
Portugal	5,830	3,564	6,853	0	0	0	0	10,777
Singapore	7,658	3,416	0	2,967	3,690	0	0	0
South Korea	49,103	14,239	32,126	13,814	10,492	28,171	20,921	24,258
Spain	9,907	14,118	15,206	3,222	13,679	9,640	29,360	22,943
Taiwan	6,216	3,636	9,007	0	0	2,953	6,662	0
Thailand	3,705	0	0	0	3,254	0	7,397	11,049
Turkey	12,817	0	3,611	0	3,222	0	6,661	14,030
United Arab Emirates	0	0	0	3,359	3,277	0	3,474	0
United Kingdom	26,544	17,191	3,664	0	2,908	0	0	0
By Truck								
Canada	0	0	0	0	0	0	0	0
Mexico	52	68	73	78	72	61	18	23
Re-Exports								
By Vessel								
Argentina	0	0	0	2,164	0	0	0	0
Brazil	0	82	0	0	0	0	0	0
Japan	0	82	0	0	0	0	0	0
South Korea	0	82	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0
Total LNG Exports	**280,682**	**222,963**	**151,128**	**112,462**	**96,200**	**109,002**	**182,438**	**210,466**
CNG								
Canada	35	26	17	20	37	43	39	35
Total CNG Exports	**35**	**26**	**17**	**20**	**37**	**43**	**39**	**35**
Total Exports	**528,210**	**481,621**	**395,424**	**359,159**	**349,167**	**338,486**	**395,472**	**420,767**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2019-2021

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

	2020			2019				
	March	**February**	**January**	**Total**	**December**	**November**	**October**	**September**
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	86,579	77,354	99,231	972,519	109,779	92,671	76,246	71,573
Mexico	166,550	151,071	160,875	1,865,329	151,308	158,633	171,535	162,649
Total Pipeline Exports	**253,130**	**228,425**	**260,106**	**2,837,848**	**261,086**	**251,305**	**247,781**	**234,222**
LNG								
Exports								
By Vessel								
Antigua and Barbuda	0	0	0	0	0	0	0	0
Argentina	0	0	0	39,293	0	0	0	0
Bahamas	20	13	15	156	11	14	8	2
Bangladesh	0	0	3,640	3,419	3,419	0	0	0
Barbados	28	26	33	211	20	20	25	17
Belgium	3,724	9,872	6,761	23,897	10,407	3,293	3,402	3,404
Brazil	6,891	10,433	8,438	54,298	0	3,279	3,345	6,117
Chile	3,216	10,731	6,087	90,357	7,207	3,484	6,608	9,811
China	17,699	0	0	6,851	0	0	0	0
Colombia	0	1,003	525	6,518	0	0	0	0
Croatia	0	0	0	0	0	0	0	0
Dominican Republic	2,872	0	0	10,334	501	0	2,927	2,857
Egypt	0	0	0	0	0	0	0	0
France	23,491	20,520	6,563	117,791	14,758	26,946	14,228	6,740
Greece	8,892	0	11,276	14,643	7,752	0	0	0
Haiti	9	11	7	42	12	8	4	9
India	17,245	0	3,309	91,481	7,090	6,933	6,961	14,355
Indonesia	0	0	0	0	0	0	0	0
Israel	3,197	0	0	0	0	0	0	0
Italy	9,895	16,616	6,308	68,655	12,764	6,345	0	3,230
Jamaica	1	2,914	869	13,892	2,435	2,464	0	0
Japan	21,845	21,360	31,975	200,864	21,226	17,603	24,504	28,084
Jordan	0	0	0	32,332	0	0	0	3,616
Kuwait	0	0	0	10,308	0	0	0	0
Lithuania	0	0	0	3,455	3,455	0	0	0
Malaysia	0	0	0	3,698	0	3,698	0	0
Malta	0	48	2,600	413	0	0	0	0
Mexico	7,037	3,167	6,764	143,371	9,696	3,273	6,437	10,442
Netherlands	13,772	14,099	6,681	81,361	13,405	10,099	3,456	3,431
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	3,567	3,323	26,935	3,400	3,247	3,472	6,512
Panama	906	3,408	0	10,221	0	478	0	0
Poland	3,583	6,677	3,282	38,042	7,013	3,432	3,489	0
Portugal	0	6,187	0	53,342	6,345	0	6,621	2,924
Singapore	10,610	0	0	31,440	3,375	0	3,463	0
South Korea	28,095	11,071	44,320	270,025	38,139	24,962	42,233	10,818
Spain	23,657	20,240	24,412	166,684	13,874	19,985	13,704	37,938
Taiwan	6,987	7,115	9,317	27,397	3,658	3,736	3,138	0
Thailand	3,783	3,435	0	6,635	0	0	0	3,234
Turkey	6,489	24,303	32,637	30,611	536	7,266	3,528	0
United Arab Emirates	0	0	0	20,561	0	0	0	3,325
United Kingdom	20,202	28,884	30,428	118,357	29,749	39,957	26,260	3,303
By Truck								
Canada	0	0	2	25	0	1	14	9
Mexico	123	87	122	1,105	93	86	139	95
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	305	221	0	0	0	0
South Korea	0	0	305	0	0	0	0	0
United Kingdom	0	0	0	305	305	0	0	0
Total LNG Exports	**244,269**	**225,786**	**250,305**	**1,819,547**	**220,646**	**190,610**	**177,966**	**160,274**
CNG								
Canada	38	34	33	263	25	30	28	15
Total CNG Exports	**38**	**34**	**33**	**263**	**25**	**30**	**28**	**15**
Total Exports	**497,437**	**454,245**	**510,444**	**4,657,657**	**481,757**	**441,944**	**425,775**	**394,511**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2019-2021

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

	2019							
	August	July	June	May	April	March	February	January
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	78,302	68,613	61,809	70,182	71,333	93,182	91,561	87,269
Mexico	168,089	167,902	156,440	153,452	139,750	149,514	135,514	150,544
Total Pipeline Exports	**246,391**	**236,515**	**218,249**	**223,633**	**211,083**	**242,696**	**227,074**	**237,813**
LNG								
Exports								
By Vessel								
Antigua and Barbuda	0	0	0	0	0	0	0	0
Argentina	0	13,066	13,120	8,737	4,369	0	0	0
Bahamas	20	11	25	14	14	11	14	11
Bangladesh	0	0	0	0	0	0	0	0
Barbados	17	17	13	21	17	14	14	17
Belgium	0	0	0	0	0	3,390	0	0
Brazil	12,868	6,949	9,116	4,905	1,201	3,283	3,234	0
Chile	6,297	9,382	19,012	6,188	9,429	10,005	2,933	0
China	0	0	0	0	0	0	3,464	3,387
Colombia	649	0	0	0	0	2,935	0	2,934
Croatia	0	0	0	0	0	0	0	0
Dominican Republic	0	0	1,108	0	0	0	2,942	0
Egypt	0	0	0	0	0	0	0	0
France	3,249	0	0	6,621	17,092	20,853	0	7,303
Greece	0	0	0	3,497	0	0	3,394	0
Haiti	3	2	3	0	2	0	0	0
India	7,294	3,485	3,215	13,942	6,742	7,446	6,989	7,030
Indonesia	0	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	0	0
Italy	6,082	9,963	3,072	6,560	0	6,684	3,454	10,502
Jamaica	2,946	837	0	2,890	0	2,320	0	0
Japan	17,506	21,242	14,582	7,149	14,010	7,143	10,320	17,495
Jordan	3,277	3,449	7,342	7,332	3,622	0	3,695	0
Kuwait	3,401	3,405	0	3,502	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0
Malta	0	0	0	0	413	0	0	0
Mexico	13,681	24,209	16,955	20,244	10,406	7,038	6,681	14,310
Netherlands	6,688	3,386	3,310	10,734	13,010	10,452	3,390	0
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	3,656	0	0	0	3,282	3,365	0
Panama	0	0	3,282	0	0	3,191	3,269	0
Poland	3,537	3,694	0	0	3,414	3,701	0	9,762
Portugal	6,051	6,994	6,908	0	3,489	0	3,720	10,289
Singapore	0	3,570	3,435	3,397	320	6,631	7,249	0
South Korea	16,995	32,663	20,402	18,069	13,000	18,013	17,750	16,981
Spain	15,861	3,297	13,506	14,325	10,139	10,678	6,748	6,631
Taiwan	7,207	0	0	3,309	6,349	0	0	0
Thailand	0	0	0	3,401	0	0	0	0
Turkey	0	0	0	0	2,969	0	6,483	9,829
United Arab Emirates	3,502	3,487	3,459	0	6,787	0	0	0
United Kingdom	1,335	0	0	0	0	3,669	3,711	10,373
By Truck								
Canada	0	0	0	0	0	0	1	0
Mexico	113	101	92	75	87	73	48	104
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	221	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	**138,578**	**156,865**	**141,956**	**144,913**	**127,102**	**130,814**	**102,866**	**126,957**
CNG								
Canada	15	20	20	22	28	29	15	16
Total CNG Exports	**15**	**20**	**20**	**22**	**28**	**29**	**15**	**16**
Total Exports	**384,983**	**393,400**	**360,226**	**368,568**	**338,213**	**373,539**	**329,954**	**364,787**

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2016-2021

(million cubic feet)

Year and Month	Alaska	Arkansas	California	Colorado	Kansas	Louisiana	Montana	New Mexico	North Dakota	Ohio
2016 Total	**332,749**	**823,196**	**205,025**	**1,685,755**	**244,795**	**1,784,396**	**47,921**	**1,229,647**	**531,997**	**1,437,285**
2017 Total	**344,385**	**694,676**	**212,458**	**1,706,364**	**219,639**	**2,139,830**	**46,311**	**1,299,732**	**593,998**	**1,791,359**
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										
January	30,503	47,443	16,800	165,594	16,055	259,311	3,773	137,940	67,591	213,280
February	26,728	42,219	15,513	148,543	14,237	242,076	3,095	128,351	58,573	192,640
March	29,346	46,211	16,922	164,062	15,820	266,649	3,508	144,805	68,542	213,280
April	28,816	44,455	16,548	161,046	15,613	259,749	3,552	142,454	67,985	207,990
May	29,028	44,906	16,754	166,110	14,898	270,060	3,817	147,013	70,266	214,923
June	26,889	42,702	16,254	162,072	15,559	265,302	3,757	142,093	65,406	207,990
July	25,348	43,852	16,890	165,821	15,695	277,490	3,783	149,002	70,039	235,476
August	22,876	43,505	16,969	166,581	15,637	276,362	3,739	153,633	75,266	235,476
September	24,494	41,798	16,262	161,977	15,039	266,639	3,675	151,917	72,439	227,880
October	27,409	43,093	16,228	174,304	15,151	275,520	3,617	157,544	78,027	236,778
November	28,256	41,738	15,659	172,088	14,439	270,668	3,559	154,545	77,473	229,140
December	29,669	42,834	16,024	178,720	14,945	282,493	3,660	159,790	79,218	236,778
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										
January	30,018	42,187	15,908	178,066	14,623	274,755	3,527	162,016	78,798	203,701
February	28,537	39,093	14,649	166,620	13,636	255,885	3,340	155,323	77,940	190,559
March	29,219	43,677	15,376	175,202	14,486	276,544	3,527	169,244	83,892	203,701
April	27,513	39,748	14,906	168,438	13,595	264,869	3,148	156,722	72,059	193,050
May	27,076	40,463	15,172	163,768	14,012	281,636	2,692	147,782	52,874	199,485
June	25,545	38,742	14,837	159,601	13,321	264,072	2,667	153,276	52,626	193,050
July	26,779	39,855	15,061	167,105	13,674	264,875	3,322	165,335	64,860	201,686
August	26,846	40,295	13,344	165,091	13,504	260,226	3,248	168,311	74,940	201,686
September	26,978	38,734	12,857	162,531	13,030	255,690	3,009	165,008	78,195	195,180
October	29,080	40,172	13,059	164,462	13,461	263,120	3,204	171,376	82,649	201,097
November	29,575	38,565	12,934	159,409	12,917	267,312	3,143	167,213	80,112	194,610
December	31,161	39,452	12,475	160,168	13,097	277,178	3,135	166,561	83,498	201,097
Total	**338,329**	**480,982**	**170,579**	**1,990,462**	**163,356**	**3,206,163**	**37,963**	**1,948,168**	**882,443**	**2,378,902**
2021										
January	31,632	E39,964	E12,033	E159,820	E12,578	E271,751	E3,214	E179,574	E77,021	E206,660
February	28,365	E30,061	E10,749	E143,416	E9,965	E221,051	E2,790	E151,970	E65,685	E170,668
March	31,481	E39,947	E12,028	E156,534	E12,340	E281,406	E3,144	E187,274	E77,032	E189,405
April	29,514	E37,926	E11,685	E156,009	E12,316	E276,931	E3,096	E184,890	E76,209	E183,444
May	29,005	E38,775	E12,215	E162,200	E12,648	E284,347	E3,226	E196,174	E80,479	E187,668
June	27,715	E37,125	E11,787	E154,405	E12,276	E272,759	E2,932	E190,003	E78,111	E183,602
July	26,280	E38,273	E12,014	E160,065	E12,780	E284,504	E3,151	E201,572	E79,150	E189,223
August	27,864	E38,000	E11,930	E158,380	E12,793	E288,489	E3,168	E206,178	E81,659	E188,396
September	28,534	RE36,706	RE11,499	RE153,067	RE12,371	RE285,313	E3,127	RE203,500	RE80,634	RE180,630
October	30,458	RE37,784	RE11,568	RE159,939	RE12,787	RE301,473	RE3,191	RE211,872	RE83,091	RE192,555
November	30,735	E36,267	E11,182	E154,031	E12,362	E300,218	E3,077	E208,974	E82,263	E194,198
2021 11-Month	**321,584**	**E410,830**	**E128,691**	**E1,717,867**	**E135,215**	**E3,068,242**	**E34,118**	**E2,121,982**	**E861,334**	**E2,066,450**
2020 11-Month	**307,168**	**441,530**	**158,104**	**1,830,294**	**150,259**	**2,928,985**	**34,828**	**1,781,607**	**798,945**	**2,177,805**
2019 11-Month	**299,692**	**481,923**	**180,799**	**1,808,196**	**168,143**	**2,929,826**	**39,874**	**1,609,296**	**771,608**	**2,414,853**

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2016-2021

(million cubic feet) – continued

Year and Month	Oklahoma	Pennsylvania	Texas	Utah	West Virginia	Wyoming	Other States	Federal Gulf of Mexico	U.S. Total
2016 Total	**2,468,312**	**5,210,209**	**7,225,472**	**365,268**	**1,384,458**	**1,662,909**	**559,985**	**1,200,669**	**28,400,049**
2017 Total	**2,513,897**	**5,453,638**	**7,223,841**	**315,211**	**1,514,278**	**1,590,059**	**517,698**	**1,060,452**	**29,237,825**
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									
January	255,006	576,440	737,375	23,148	169,050	125,391	39,987	90,143	2,974,830
February	229,666	519,802	678,066	21,007	154,910	117,653	35,427	76,743	2,705,249
March	250,919	578,820	758,646	23,266	171,516	125,044	39,436	92,017	3,008,808
April	250,314	560,062	727,527	22,751	167,816	123,615	38,348	87,201	2,925,844
May	266,014	571,803	781,002	23,531	171,305	128,320	38,958	87,738	3,046,445
June	243,339	556,708	766,761	22,780	174,784	124,341	37,968	81,599	2,956,304
July	254,709	583,186	804,899	22,987	180,524	116,782	38,381	66,834	3,071,698
August	257,498	585,405	837,459	23,261	181,927	120,984	38,570	91,237	3,146,384
September	256,073	568,646	798,191	22,080	181,334	126,696	37,301	84,094	3,056,535
October	261,454	589,800	828,390	22,559	201,814	130,259	37,566	86,636	3,186,150
November	251,153	597,779	815,089	21,869	196,055	123,894	36,861	83,661	3,133,926
December	259,905	608,342	845,084	22,570	204,178	125,876	37,220	87,441	3,234,746
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									
January	263,734	603,836	843,432	21,944	209,896	124,274	37,391	86,071	3,194,177
February	243,139	569,721	783,094	20,373	198,090	108,722	34,782	81,114	2,984,616
March	257,387	607,689	841,347	21,765	210,559	117,977	36,689	87,955	3,196,236
April	235,642	586,955	783,283	20,379	204,826	111,744	34,389	80,574	3,011,842
May	217,154	592,126	734,176	20,326	212,646	107,288	33,986	64,374	2,927,037
June	222,324	560,390	741,401	19,244	212,831	103,890	32,957	62,227	2,873,001
July	226,843	604,716	775,851	20,312	220,032	108,679	34,568	67,778	3,021,331
August	226,344	607,221	782,436	19,814	223,208	107,320	33,757	43,988	3,011,580
September	222,010	567,029	755,253	19,283	218,893	104,520	30,468	48,900	2,917,569
October	219,403	595,653	773,720	20,042	226,064	104,787	31,775	38,702	2,991,827
November	224,327	605,244	751,562	19,200	223,428	103,236	31,246	60,496	2,984,528
December	228,057	647,714	770,555	19,307	231,845	103,933	32,383	67,085	3,088,701
Total	**2,786,366**	**7,148,295**	**9,336,110**	**241,989**	**2,592,319**	**1,306,368**	**404,391**	**789,262**	**36,202,446**
2021									
January	[E]221,544	[E]657,704	[E]774,497	[E]19,235	[E]234,432	[E]106,649	[E]33,651	[E]68,393	[E]3,110,352
February	[E]163,094	[E]585,221	[E]588,035	[E]17,815	[E]208,571	[E]96,543	[E]30,083	[E]62,325	[E]2,586,408
March	[E]220,130	[E]647,681	[E]771,346	[E]20,356	[E]227,218	[E]107,236	[E]34,338	[E]72,867	[E]3,091,762
April	[E]214,334	[E]618,509	[E]775,796	[E]19,861	[E]229,075	[E]103,470	[E]33,044	[E]69,696	[E]3,035,804
May	[E]223,372	[E]640,431	[E]798,311	[E]20,312	[E]234,118	[E]105,441	[E]33,844	[E]67,642	[E]3,130,208
June	[E]213,314	[E]621,905	[E]781,294	[E]19,587	[E]227,987	[E]100,983	[E]32,490	[E]67,779	[E]3,036,055
July	[E]221,002	[E]642,894	[E]821,587	[E]20,363	[E]229,376	[E]104,558	[E]33,626	[E]70,488	[E]3,150,909
August	[E]222,329	[E]655,525	[E]820,135	[E]20,335	[E]241,373	[E]102,121	[E]33,126	[E]61,046	[E]3,172,847
September	[RE]216,455	[RE]633,963	[RE]798,167	[RE]19,841	[E]216,452	[RE]102,262	[E]31,895	[RE]35,503	[RE]3,049,920
October	[RE]223,682	[RE]657,665	[RE]832,610	[RE]20,488	[E]240,581	[RE]104,464	[RE]33,512	[RE]61,130	[RE]3,218,849
November	[E]215,252	[E]651,368	[E]809,320	[E]20,082	[E]229,812	[E]101,348	[E]32,351	[E]65,574	[E]3,158,416
2021 11-Month YTD	**[E]2,354,509**	**[E]7,012,866**	**[E]8,571,097**	**[E]218,275**	**[E]2,518,995**	**[E]1,135,073**	**[E]361,961**	**[E]702,442**	**[E]33,741,530**
2020 11-Month YTD	**2,558,308**	**6,500,582**	**8,565,555**	**222,681**	**2,360,474**	**1,202,435**	**372,007**	**722,177**	**33,113,745**
2019 11-Month YTD	**2,776,147**	**6,288,450**	**8,533,405**	**249,238**	**1,951,036**	**1,362,978**	**418,804**	**927,902**	**33,212,172**

[E] Estimated data.

[RE] Revised estimated data.

Notes: For 2021 forward, state monthly marketed production is estimated from gross withdrawals using historical relationships between the two. 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 are individually collected 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 2021, Federal Offshore Pacific is included in California. All data for Alaska are obtained 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 due to independent rounding.

Sources: 2016-2020: U.S. Energy Information Administration (EIA), *Natural Gas Annual 2020*, Bureau of Safety and Environmental Enforcement (BSEE), IHS Markit, Enverus DrillingInfo, and BENTEK Energy. January 2021 through current month: Form EIA-914, *Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report*; and EIA computations.

https://www.spglobal.com/platts/en/market-insights/latest-news/lng/020122-driftwood-lng-full-construction-to-begin-in-april-regardless-of-financing-status-tellurian

- **LNG | NATURAL GAS**

- 01 Feb 2022 | 22:53 UTC

Driftwood LNG full construction to begin in April regardless of financing status: Tellurian

HIGHLIGHTS

Bank talks may take 'bit longer' than end-March target

FID 'doesn't apply here': Executive Chairman Souki

- Author Harry Weber

Tellurian will begin full construction of its Driftwood LNG export terminal in Louisiana in April regardless of whether it has sufficient financing in place by that time to complete the first phase of the project, Executive Chairman Charif Souki said in a podcast posted on the company's website Feb. 1.

Less than a week after telling S&P Global Platts that the developer was confident it would meet its project financing goals by the end of March, in line with its previous target, Souki said bank talks may extend "a little bit longer."

"It is critical to get it right for the value of the shareholder, so we're not going to rush through that process," Souki said in his latest public message. "We're very comfortable starting the construction program without being completely sure that the financing will be put in place."

On Jan. 26, in an interview as part of a Platts podcast, Souki said talks with banks were going well and suggested that the company's previous targets remained unchanged.

"Right now, they want to do it behind the scenes," Souki said of the banks, in the earlier interview. "But we've just signed 45 different nondisclosure agreements with financial institutions around the world, and there's appetite for funding these projects because it's clear now that they're going to make a lot of money."

Following 10-year agreements with Gunvor, Vitol and Shell, total offtake commitments to Driftwood LNG stand at 9 million mt/year. That's enough, Tellurian has said, for the two-plant first phase of the project. Each plant is expected to have up to four liquefaction trains, for a total design capacity of up to 27.6 million mt/year.

"Construction will start in April of this year, as we promised you," Souki said Feb. 1.

The deals Tellurian signed to support the first phase of Driftwood LNG are indexed to a combination of the Platts JKM, the benchmark for spot-traded LNG delivered to Northeast Asia, and the Dutch TTF European gas hub contract, netted back for transportation charges. The LNG would be delivered free on board from Driftwood. Tellurian plans to produce its own feedgas for the first phase of the terminal -- currently it is well short of the upstream production necessary to guarantee that.

The shorter length of Tellurian's commercial deals than the traditional 20-year agreements that were used to finance the first wave of US liquefaction terminals and the pricing mechanisms underlying Tellurian's agreements have raised questions in the market about the company's ability to obtain financing.

Souki tried to allay those concerns in his latest company podcast, while at the same time acknowledging that Tellurian may have to use available cash and lines of financing to pay contractor Bechtel while talks over the billions of dollars more that would be needed to finish the first phase of the project continued.

"We now have a number of banks that are willing to consider a project like this," Souki said. "We feel very confident and comfortable that this will be done."

He added, "It might be done by April, but it could take a little bit longer."

Following the latest message, uncertainty remained over whether and when Tellurian would announce a formal final investment decision, in line with the traditional practice of US LNG exporters and the same process Souki employed when he was CEO of Cheniere Energy, a company he co-founded and led in the run-up to its flagship Sabine Pass terminal beginning exports in 2016.

Regarding Driftwood LNG, Souki said FID "doesn't apply here."

https://semprainfrastructure.com/news-and-events/news-releases/mexicos-federal-electricity-commission-and-sempra-infrastructure-sign-mou-for-the-development-of-natural-gas-supply-projects

Mexico’s Federal Electricity Commission and Sempra Infrastructure Sign MOU for the Development of Natural Gas Supply Projects

JANUARY 31, 2022

- **Companies to jointly develop an LNG terminal in Topolobampo, Sinaloa**
- **The MOU contemplates the negotiation of definitive agreements that would allow the use of CFE´s excess natural gas and pipeline capacity, the resumption of operations of the Guaymas-El Oro pipeline, and the supply of natural gas to Baja California Sur and global markets.**

SAN DIEGO, Jan. 31, 2022 – Mexico’s Federal Electricity Commission (Comisión Federal de Electricidad, CFE), represented by its General Director Manuel Bartlett Díaz, and Sempra Infrastructure, a subsidiary of Sempra (NYSE: SRE) (BMV:SRE), represented by Tania Ortiz Mena, President of Sempra Infrastructure for Mexico, signed a non-binding memorandum of understanding (MOU) for the development of important proposed projects, including Vista Pacífico LNG, a natural gas liquefaction project in Topolobampo, Sinaloa; a natural gas regasification project in La Paz, Baja California Sur; and the resumption of operations of the Guaymas-El Oro pipeline in Sonora.

The development of these projects would allow CFE to optimize excess natural gas and pipeline capacity from Texas to Topolobampo in order to increase its natural gas supply to its power plants in Baja California Sur, to advance President Andrés Manuel López Obrador’s commitment to supply the state with low-cost electricity and lower-emission fuels, and to promote economic growth and development of the region, with a view toward strengthening CFE's position in global LNG markets.

The MOU also addresses the return to service of the Guaymas–El Oro pipeline in Sonora through a proposed re-routing based on mutual understanding between the Yaqui community and CFE through continued respectful dialogue. Through this new route, CFE would be able to supply natural gas to industrial, commercial and residential markets in the Pacific Coast of Mexico, Baja California Sur, as well as the Vista Pacífico LNG facility.

Through these combined actions, CFE contributes to strengthening the country's energy security and reaffirms its commitment with the Mexican people, while Sempra Infrastructure agrees to continue to work to develop critical new energy infrastructure in Mexico.

About Sempra Infrastructure

Sempra Infrastructure delivers energy for a better world. Through the combined strength of its assets in North America, the company is dedicated to enabling the energy transition and beyond. With a continued focus on sustainability, innovation, world-class safety, championing people, resilient operations and social responsibility, its more than 2,000 employees develop, build and operate clean power, energy networks and LNG and net-zero solutions, that are expected to play a crucial role in the energy systems of the future. For more information about Sempra Infrastructure, please visit www.SempraInfrastructure.com and follow us on social media.

Spot prices in Asia and Europe soared to record highs in 2021 on tight market fundamentals

Natural gas prices recovered strongly in all key regions in 2021, climbing to over ten-year highs in North America and to all-time highs in Asia and Europe in Q4. This strong increase in gas prices resulted from a combination of factors: gas demand growth in 2021 was stronger than expected due to a number of weather-related factors, while gas supply faced several constraints amid higher planned and unplanned outages along the entire gas value chain. Record gas prices thus resulted from tight market fundamentals and were not a consequence of clean energy policy outcomes.

In the **United States**, Henry Hub prices almost doubled from their 2020 levels to average USD 3.9/MBtu – their highest since 2014. Combined domestic consumption and export flows grew more strongly than domestic production, resulting in a tighter market. Total demand increased by above 5% y-o-y, supported by higher residential and commercial consumption and strong growth in exports via both LNG and pipeline deliveries to Mexico. In contrast, domestic production grew by close to 2% compared to 2020, as the capital discipline of upstream companies and unplanned outages weighed on natural gas output. Henry Hub prices averaged USD 4.8/MBtu during Q4, their highest seasonal level since 2008. Pipeline imports from Canada increased by 17% y-o-y and played a key role in balancing the US gas market. This in turn provided upward pressure on Western Canada AECO prices, which saw their highest average level in Q4 since 2009 at USD 3.7/MBtu.

In **Europe**, TTF prices rose almost fivefold from their 2020 lows to reach an annual average of USD 15.8/MBtu – the highest on record. Strong demand recovery (up 5.5%) together with plummeting domestic production (down 10%), lower LNG inflow (down 4%) and reduced Russian pipeline deliveries to the European Union (down 3% y-o-y) resulted in a tight gas market. Gas storage levels standing 15% below their five-year average at the beginning of the heating season provided additional upward pressure on gas prices, which soared to all-time highs in Q4, averaging close to USD 31.5/MBtu.

Asian LNG spot prices followed a similar price trajectory to the European hubs, amid strong competition for LNG cargoes. Annual average LNG spot prices rose more than fourfold to USD 18/MBtu – again, the highest in our records. Tighter market fundamentals propelled Asian spot prices to all-time highs in Q4, soaring to an average of over USD 35/MBtu. Oil-indexed LNG prices rose by 25% y-o-y and averaged at an estimated USD 10/MBtu during 2021. Oil-indexed prices traded at a marked discount compared to spot LNG for the first time since 2009, when JKM was launched.

The strong recovery in LNG trade together with longer shipping drove up tonne-mile demand. This in turn supported spot LNG charter rates, which rose to an average of USD 100 000/day – their highest annual average in our records.

Asian and European spot gas prices displayed record-high variability and volatility in 2021…

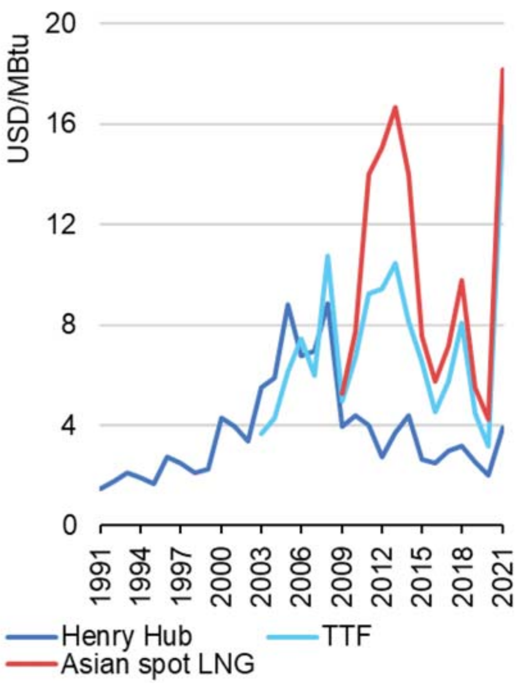
The unprecedented surge in Asian LNG spot and European hub prices has been accompanied by all-time high volatility, tight forward seasonal price spreads and an increasingly important correlation between regional gas benchmarks.

Historical gas price volatility reached its highest levels in our records both in Europe and on the Asian LNG spot market. In Europe, volatility in **TTF** month-ahead contracts averaged over 85% in 2021 – more than the double the ten-year average on the Dutch gas hub. Volatility was particularly strong in the second half of the year, reaching an all-time high of close to 200% in December. Volatility has been underpinned by a strong increase in **absolute variability**, which reached an all-time high of over 220, or an eightfold increase on its ten-year average. Strong price swings were driven by the increasingly tight gas market fundamentals, pipeline supply volatility, infrastructure uncertainty, concerns related to low underground gas storage levels, and supplier behaviour. Asian LNG spot prices displayed a similar pattern, with historical volatility averaging close to 90% during the year and absolute price variability surging to over 200 – more than eight times its five-year average. **Asian spot LNG** price volatility was partly fuelled by European gas market dynamics. Higher LNG supply outages, together with coal- and gas-fired power plant outages and extreme weather events, added further fuel to price volatility. In the United States, **Henry Hub** month-ahead prices displayed a calmer pattern, with volatility just 16% higher than its ten-year average. Absolute price variability reached 25 – its highest level since 2009. The lower US price environment combined with the United States' limited exposure to imports explains the lower variability and volatility of Henry Hub prices.

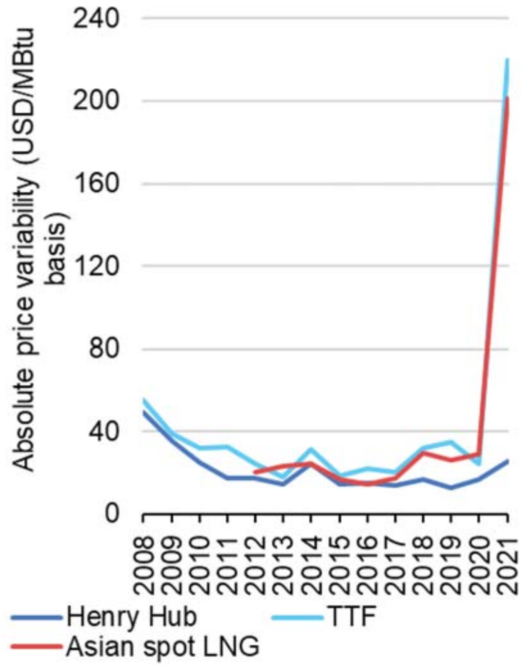
Tight summer market conditions weighed on the forward **summer–winter spreads** (front winter contracts minus summer spot prices). In Europe, seasonal price spreads fell from close to USD 1.8/MBtu in 2020 to USD 0.15/MBtu during the summer of 2021. In the United States, on Henry Hub they fell from USD 0.9/MBtu to below USD 0.13 in 2021. In contrast, Q4 gas prices indicate that out-turned seasonal price spreads (winter spot prices minus summer spot prices) were significantly higher in both markets. **The Asian and European gas benchmarks continued to display strong correlation in 2021.** Correlation between **TTF and Asian spot LNG** second-month prices reached a record 0.93 (from below 0.8 in 2019). Higher correlation is driven by the growing volumes of destination-flexible and spot LNG and marketing strategies evolving towards greater optionality. The current high correlation could be diminished in the future by unexpected, asymmetric regional supply–demand shocks. Correlation between **Henry Hub and Asian spot LNG** rose to 0.68 from below 0.4 two years ago. Correlation between Henry Hub and TTF declined in 2021 due to the strong price swings on TTF at the end of the year, reflecting Europe's particular supply situation.

…while correlation between Asian and European benchmarks grew to all-time highs

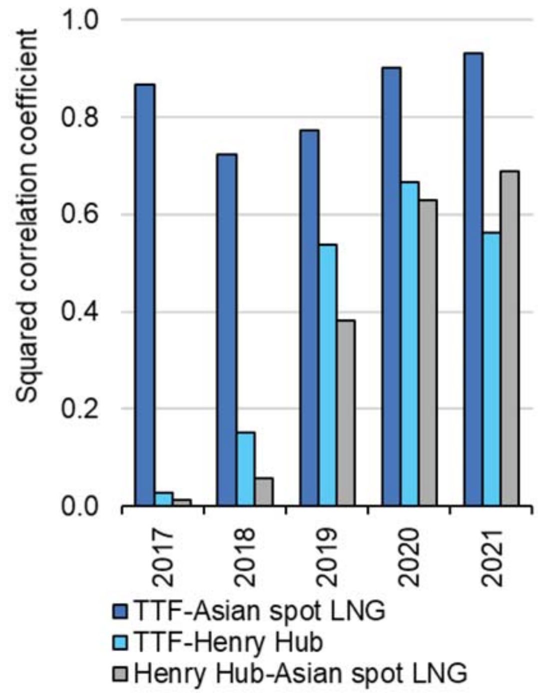
Regional natural gas prices
(1991-2021)



Cumulative annual price variability*
(2008-2021)



Correlation between regional bechmarks
(2017-2021)



* Price variability refers to the cumulative absolute daily price variations over a period. Price volatility is the standard deviation of all the normalised daily price returns included in a given period.

Sources: IEA analysis based on historical price data from various sources, including ICIS (2022), ICIS LNG Edge.

After a strong first-half recovery, natural gas demand growth suffered from record-high prices

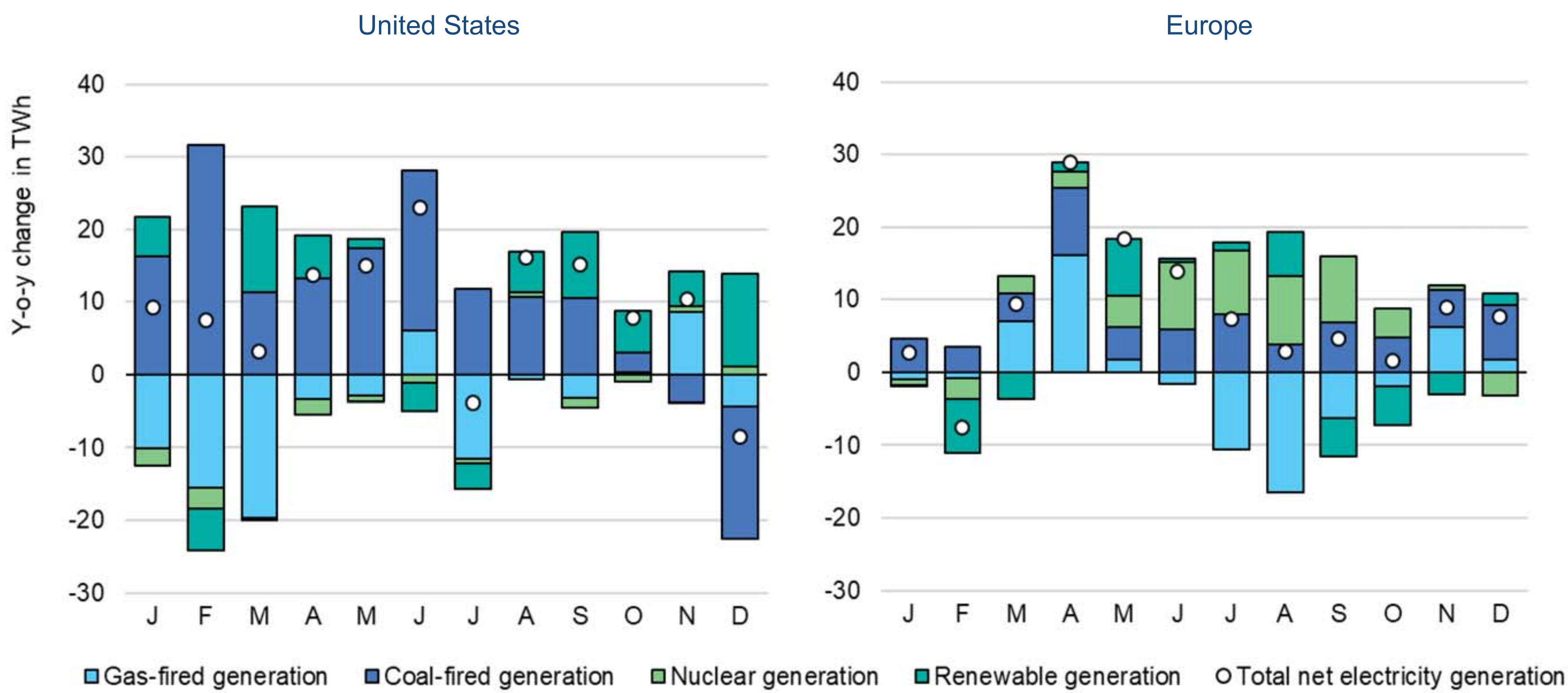
Global natural gas consumption grew at a rapid pace during the first half of 2021 on a combination of strong economic recovery from 2020 lockdowns and colder than average temperatures throughout the northern hemisphere. Preliminary figures suggest an increase in global natural gas consumption of close to 7% y-o-y during the first half of 2021. However, the progressive tightening of supply–demand fundamentals and resulting increase in natural gas prices had negative impacts on demand during the second half of the year, leading to a slowdown in growth, fuel switching and in some cases demand destruction. This resulted in an estimated 4.6% y-o-y increase in gas consumption for the whole of 2021.

Exceptionally low natural gas prices in 2020 had enabled substantial coal-to-gas switching in power generation across different regions and markets. The most visible switch occurred in the United States, but gas also grew at the expense of coal in Europe and in several Asian markets. However, this trend had already begun to change in the second half of 2020 with the progressive recovery of natural gas prices. In December 2020 US coal-fired generation showed an 8% y-o-y increase (compared with a 20% decline for the year as a whole). This continued throughout 2021, when US coal consumption for power generation showed net y-o-y increases every month from January to October, growing by an estimated 19% over the whole year, whereas gas use saw y-o-y declines almost every month and a 3% y-o-y decrease for 2021 as a whole. The shift back to coal occurred later in Europe, as a strong rebound in electricity demand in Q2 of 2021 compared to 2020 benefited both coal and gas. In the second half of 2021 rising prices worked against the use of gas in power generation. Coal-fired generation grew by over 11% in Europe in 2021, while gas-fired generation declined by 1%. Fuel switching also occurred in favour of oil for peaking needs in mature markets and as a baseload substitute in developing markets such as Pakistan and Bangladesh as LNG spot prices reached record levels in Q4.

High natural gas prices also negatively affected demand from industrial consumers, who either switched to alternative fuels or reduced output in the final months of 2021. Companies in energy-intensive sectors such as fertilisers, glass and steel had to decrease or suspend production due to high spot gas prices, especially in net importing markets such as Europe and Asia. China's industrial sector, a major source of gas consumption growth, saw negative monthly demand growth y-o-y from September. In emerging markets where gas prices are regulated, governments passed large tariff increases onto major consumers to partially fund the cost of supplying protected retail customers. They rose by 28% in Egypt and 43% in Pakistan. Cuts in the production of basic materials have ripple effects on the availability and cost of intermediate and final goods, including food products. Gas-based fertilisers had also reached record-high price levels by the end of 2021.

Flick of the switch – coal-fired generation returns as natural gas prices jump

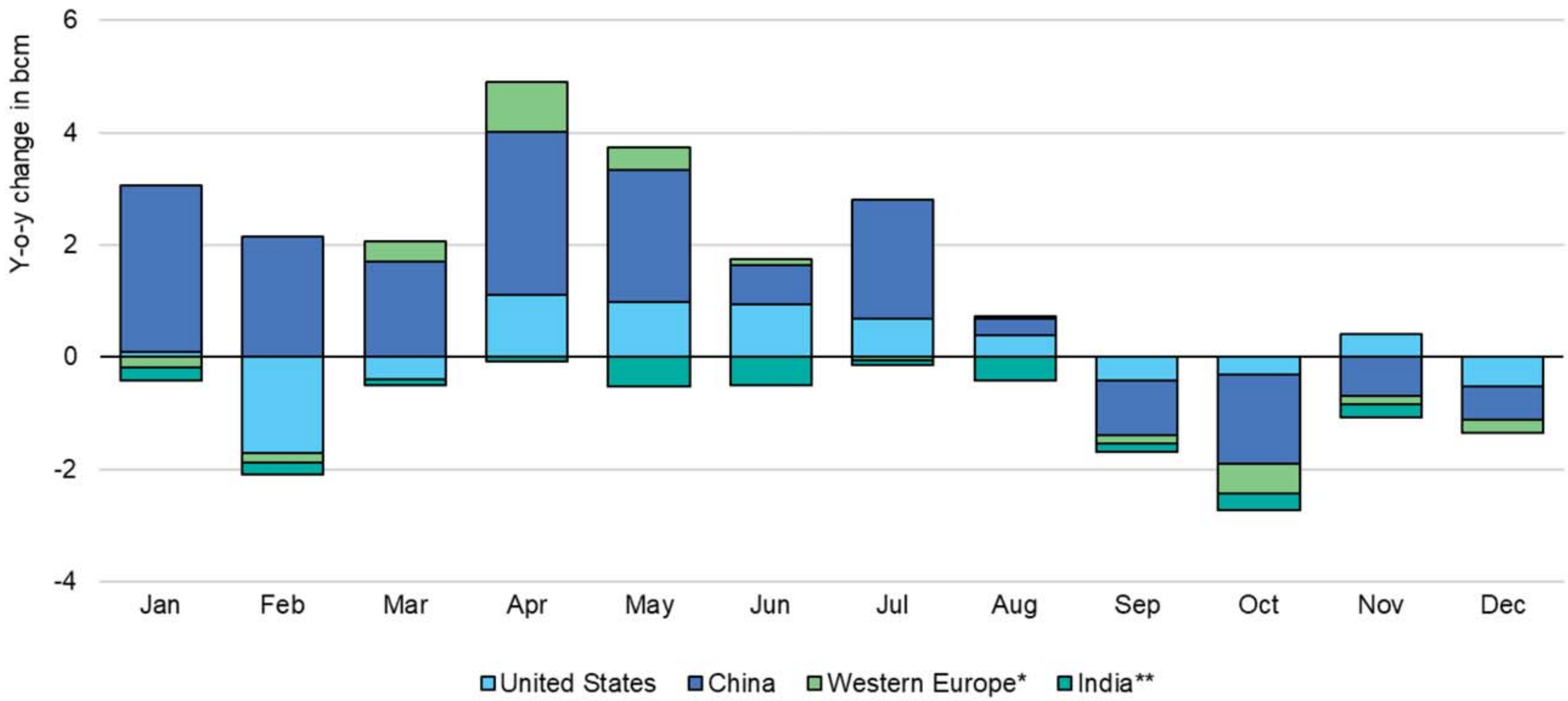
Monthly electricity generation in the United States and Europe, 2021



Sources: IEA analysis based on EIA (2022), Electric Power Monthly, US Electric System Operating Data; ENTSOE (2021), Transparency Platform.

High gas prices result in fuel switching and demand destruction in the industrial sector

Monthly natural gas consumption by industrial customers in selected markets, 2021



* Belgium, France, Italy, Spain and the United Kingdom.
** December data not available at the time of writing. Refining and petrochemicals only. Fertilisers are not included as urea producers are subsidised and are thus partially shielded from rising feedstock costs.
Sources: IEA analysis based on CQPGX (2021), Nanbin Observation; EIA (2022), Natural Gas Consumption, Natural gas weekly update; Enagás (2022), Histórico de demanda: Informe mensual; ENTSOG (2021), Transparency Platform; GRTgaz (2021), Consumption; PPAC (2022), Monthly report on natural gas production, availability and consumption.

Global gas supply has been put under pressure by outages, delays and slow pace of new FIDs

Inadequate supply – caused both by LNG capacity outages and upstream underperformance – contributed to the rapid tightening of the global gas market in 2021. Some of this was due to temporary unplanned issues and disruption to maintenance schedules caused by Covid-19 in 2020. However, in the absence of strong policies to curb demand growth to achieve net zero emission targets, gas supply adequacy could emerge as a concern for the medium term on a combination of recent LNG project delays, the relatively small number of new LNG final investment decisions (FIDs) in 2020-2021 and a structural decline in upstream spending since the early 2010s.

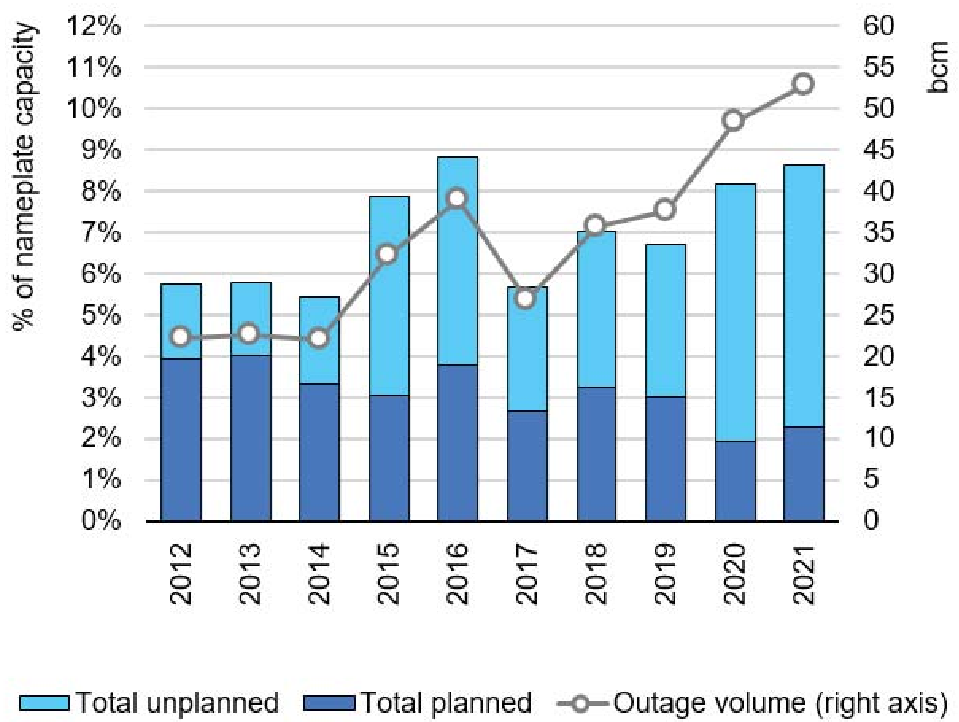
The most visible sign of supply underperformance has been the high level of LNG capacity outages, which spiked in 2020 and remained elevated throughout 2021. In 2021 the total LNG volume lost to planned or unplanned outages was 53 bcm, which is equivalent to nearly 9% of nameplate capacity and represents a 44% increase on the 2015-2020 average. About half of the LNG volumes lost to unplanned outages in 2021 (excluding the long-term disruption in Yemen) were due to upstream issues limiting feedgas availability, with the most severe incidents occurring in Nigeria, Trinidad and Tobago, and Malaysia.

Project delays could further limit supply availability in the next few years. Of the nearly 190 bcm of nameplate liquefaction capacity under construction as of early 2021, about 20% was ahead of schedule (by an average of 8 months), 35% was on time, and 45% was delayed (by an average of 14 months). Delays are especially pronounced for projects that were initially targeting full capacity by 2024, including LNG Canada, Mozambique LNG and Golden Pass in the United States.

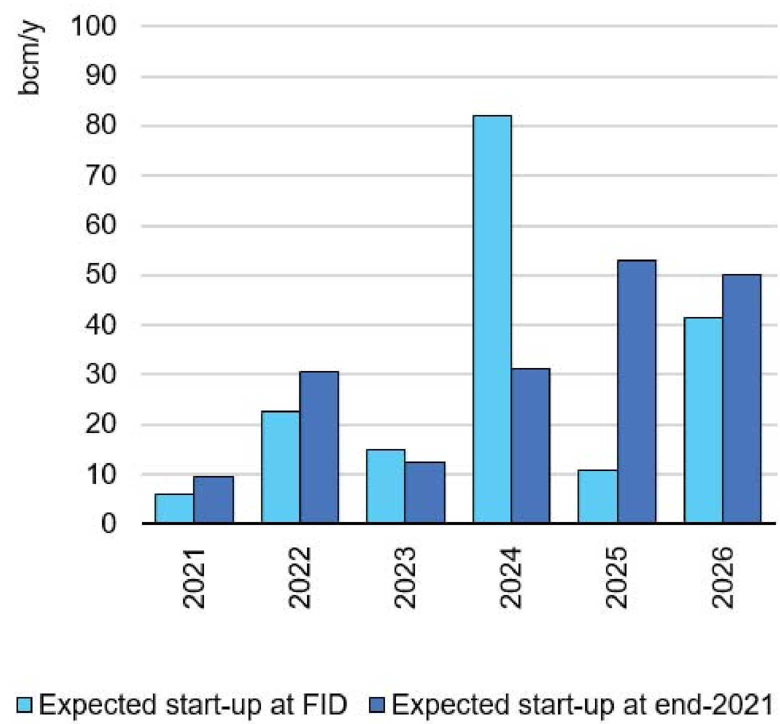
After a record year in 2019, new LNG FIDs saw a marked slowdown in 2020-2021, with only two small single-train developments (Energía Costa Azul in Mexico and Pluto LNG train 2 in Australia) and one large-scale expansion project (North Field East in Qatar) approved in the last two years. High and volatile spot LNG prices and the recent uptick in LNG contracting activity could set the stage for additional FIDs. But the expiry of 150 bcm of LNG contracts and a projected 14% increase in uncontracted portfolio volumes between 2021 and 2024 could weaken the link between contracting and new project sanctions in this potential next investment cycle. In 2021 new contract volumes (at 90 bcm/y) were more than 50% higher than the total amount in 2020. However, only a third of the new LNG contracts in 2021 were signed with pre-FID projects (mainly in the United States). The remainder came from existing or under-construction plants or from portfolio volumes.

LNG supply outages broke new records in 2021, and project delays could be especially severe in 2024

LNG capacity outages



Expected start-up year of new LNG capacity



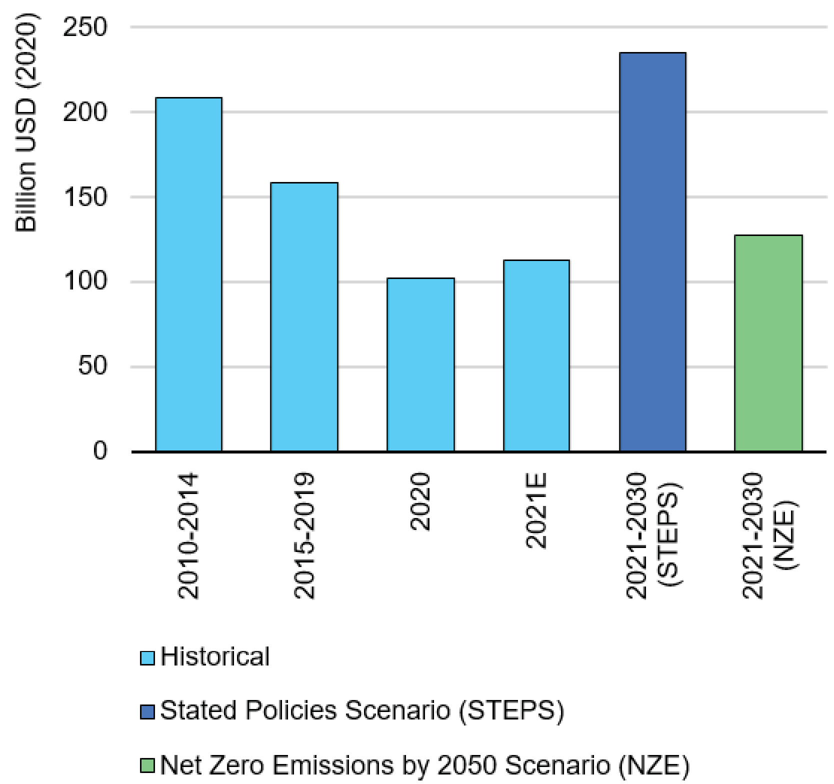
Source: IEA analysis based on ICIS (2022), ICIS LNG Edge.

Low spending levels could present challenges for upstream performance in the medium term

Upstream supply also fell short of expectations in key producing regions. In the first nine months of 2021 an estimated 11 bcm of North Sea production was lost due to extended maintenance. Gazprom, which accounts for two-thirds of Russian supply, produced 35 bcm below the company's stated capacity in 2021 despite record-high prices in Europe and strong domestic demand. US production increased by less than 2% in 2021, despite a near-doubling of the Henry Hub price from 2020 levels.

Upstream spending directed to natural gas has been on a declining trend since the beginning of the previous decade, and reached a low point (at just over USD 100 billion) in 2020 as the collapse of demand and prices in the wake of Covid-19 led to sharp curtailment of capital budgets. The recovery in 2021 is expected to remain modest, showing only a 10% increase from the previous year. At this level, gas-related upstream spending is less than half of what is required annually under the IEA Stated Policies Scenario (STEPS), and 12% lower than the amount consistent with the Net Zero by 2050 Scenario (NZE) in the 2021-2030 period. The current high price environment provides strong incentives for producers to increase upstream investment in the near term. However, demand uncertainty related to the global pandemic and the energy transition, as well as investor pressure to exercise capital discipline (in the case of US producers) and to diversify away from fossil fuels (in the case of major IOCs), could lead to a muted supplier response to high prices.

Annual upstream investment in natural gas supply



Source: IEA analysis.

Global gas trade grew by a record amount in 2021…

Initial estimates indicate that the global gas trade – LNG and long-distance pipeline flows combined – grew by over 9% (or over 85 bcm) in 2021. This represents the largest year-on-year increase on record and was largely driven by strong demand recovery in key gas importing regions, including Asia Pacific, Europe and Central and South America.

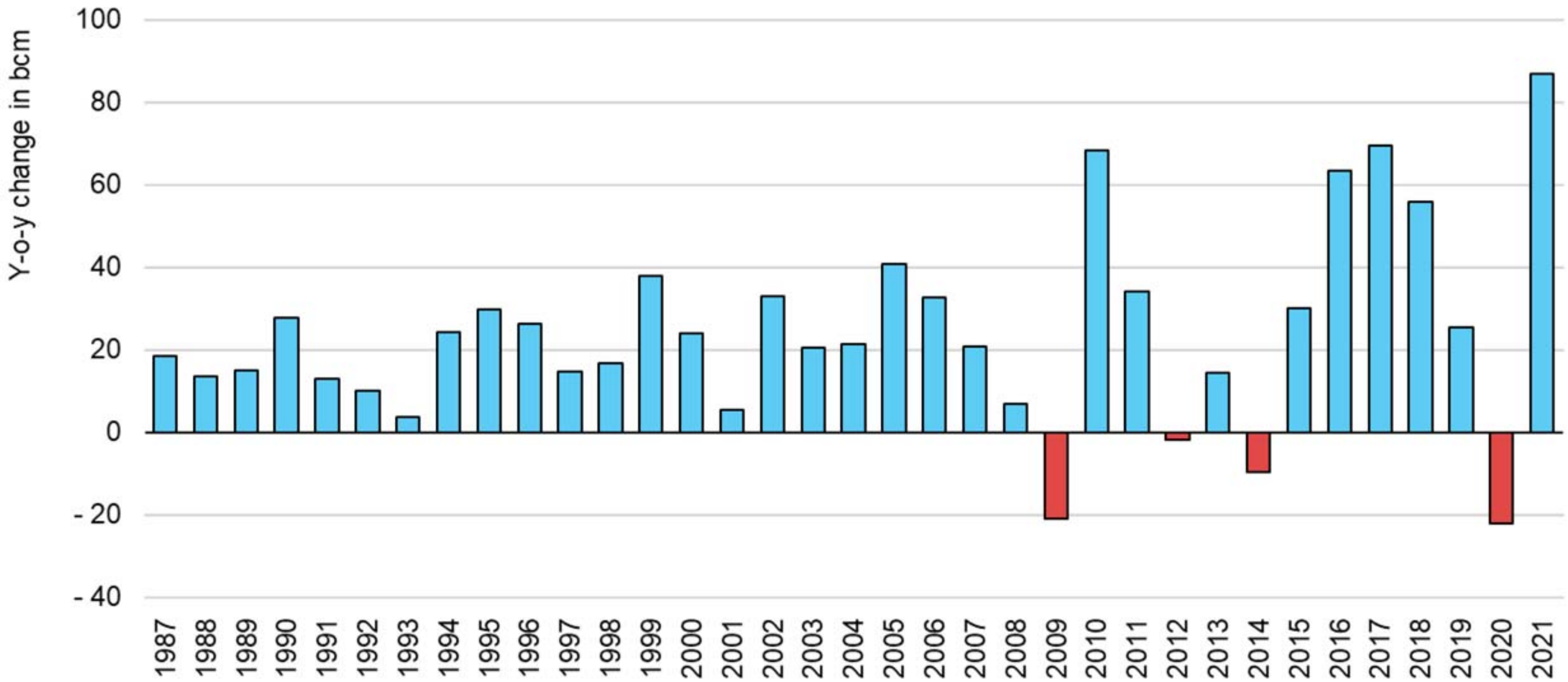
Long-distance pipeline flows surged by 12% (or 55 bcm) y-o-y, accounting for almost two-thirds of global gas trade growth in 2021 and largely recovering the losses of 2020. This strong growth was primarily driven by Europe, where pipeline imports rose by almost 11% (or over 30 bcm) y-o-y, amid a combination of higher gas demand, plummeting domestic production and lower LNG inflow. Norway's pipeline deliveries to the rest of the continent rose by 5% y-o-y, while pipeline imports from North Africa increased by over 50% y-o-y. Azeri flows into Europe surged by 20% y-o-y, driven by the ramp-up of the TAP pipeline, commissioned at the beginning of 2021. The Russian Federation's (hereafter 'Russia') pipeline exports to Europe rose by 4% y-o-y, supported by a strong increase in deliveries to Turkey, while flows to the European Union fell below 2020 levels on lower transit flows via Belarus and Ukraine. The People's Republic of China's (hereafter 'China') pipeline imports from Central Asia rose by an estimated 10% y-o-y, while deliveries from Russia via the Power of Siberia pipeline more than doubled, reaching 10 bcm in 2021. Net pipeline trade in North America rose by 11% y-o-y, driven by higher exports from the United States to Mexico, and soaring imports from Canada to the United States.

Global LNG trade expanded by 6% in 2021, a sharp acceleration from the 2020 growth rate of 1%. This import growth was led by the Asia Pacific region, which registered an 8% y-o-y increase driven by factors such as the early 2021 cold spell in Northeast Asia and a strong economic recovery. China's imports recorded a strong 17% increase, overtaking Japan for the first time in 2021 as the world's largest LNG importer. LNG imports into Central and South America soared by 69%, supported by Brazil's severe drought curtailing hydropower generation. North America continued to lead the expansion of global LNG exports, with a 51% increase in output after widespread cargo cancellations in 2020.

LNG trade growth was partly driven by spot and short-term LNG procurement, which accounted for 67% of the incremental trade volume. Consequently, the share of spot and short-term LNG in global LNG trade rose to 38% from last year's 36%. China accounted for 25% of the gross increase in short-term LNG imports, and remained the largest buyer of spot and short-term LNG. The United States retained its position as the largest provider of spot and short-term LNG in 2021 with a global share of 29%, the country accounting for almost half of gross growth in short-term sales.

…with combined LNG and long-distance pipeline trade rising by over 85 bcm

Estimated y-o-y change in combined LNG and long-distance pipeline[1] trade, 1987-2021



Sources: IEA analysis based on EIA (2022), Natural Gas: Imports/exports; ENTSOG (2022), Transparency Platform; Eurostat (2022), Imports of Natural Gas by Partner Country – Monthly Data; General Administration of Customs of People's Republic of China (2022), Customs Statistics; ICIS (2022), ICIS LNG Edge.

[1] For the purpose of this analysis, long-distance pipeline trade includes Europe's pipeline imports (from Azerbaijan, Iran, North Africa, Norway and Russia), China's pipeline imports from Central Asia and Russia, and net pipeline trade in North America.

Tight supply–demand fundamentals weighed on gas market liquidity…

Tight supply–demand fundamentals weighed on hub liquidity across all key gas markets in 2021. Hub liquidity guarantees that demand from market participants is matched by supply in a time- and cost-efficient manner without causing significant change to the price. One metric used to assess liquidity is the **churn rate**, which indicates how many times a unit of gas has been exchanged before being delivered to end consumers. Churn rates are calculated by dividing the total gas volumes traded by the total amount of gas delivered in a given gas market and time period. A higher churn rate indicates greater liquidity. Markets with a churn rate above 10 are generally considered to be liquid. Churn rates typically display a seasonal profile, edging higher during the summer and declining during the heating season on tighter market fundamentals.

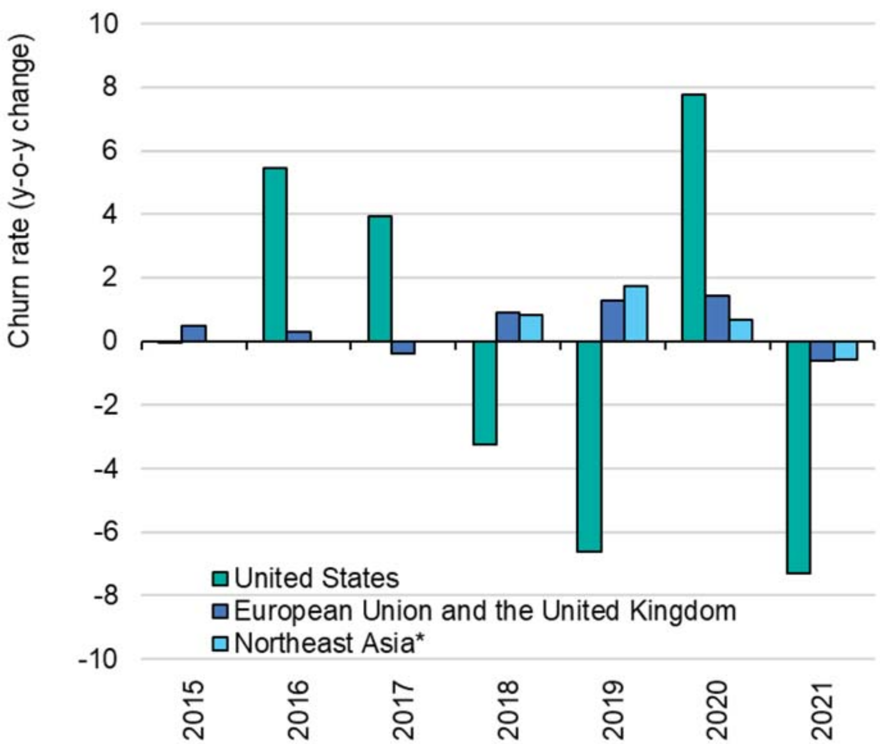
In the **United States**, volumes traded on the **Henry Hub** rose by 15% y-o-y in 2020 to reach their highest level since at least 2014. Market uncertainty and loose supply–demand fundamentals supported trading activity at a time when domestic demand was declining. This translated into a churn rate of above 50, up from 45 in 2019. In contrast, in 2021 gas volumes traded on Henry Hub plummeted by close to 20% y-o-y and fell 10% below their five-year average levels, as tighter market conditions together with the higher cost of holding positions weighed on paper trading. Consequently the churn rate fell to 45, 10% below its five-year average.

In the European Union and the United Kingdom gas trade rose by close to 15% y-o-y in 2020, largely driven by a 20% increase on the Dutch **TTF**, the region's leading gas hub. In 2021 total traded volumes in the same markets slightly declined compared to the previous year, while demand increased. Consequently, the churn rate fell marginally from 12.5 to 12. Trading on the TTF rose by 5% y-o-y, while its share of the total European gas trade increased from 70% in 2020 to close to 80% in 2021. The TTF is increasingly chosen as a hedging venue both by European and global market players seeking optionality on the European market. In contrast, traded volumes on Europe's second-largest gas hub – the NBP in the United Kingdom – plummeted by over 30%. European exchanges continued to gain traction, with traded volumes increasing by over 30%, largely at the expense of brokerages, where volumes fell by more than20%. Consequently, the exchanges' share of total traded volumes rose from 38% in 2020 to just over 50% in 2021.

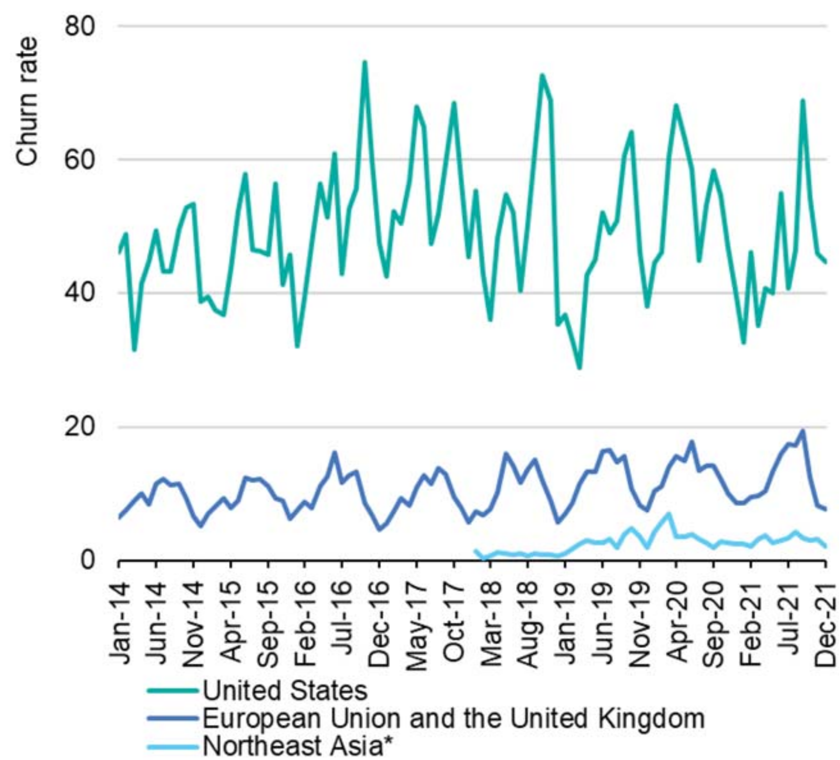
In Asia, trading in **ICE JKM** derivatives continued to increase, soaring by close to 20% y-o-y. This reflects the growing interest of market participants in diversifying their risk management and hedging strategies as they grow their spot and short-term LNG procurement. The churn rate remained low in the JKM area, hovering at just above 3.

…with churn rates declining across all key gas markets in 2021

Estimated change in annual churn rates in key natural gas markets (2014-2021)



Estimated monthly churn rates in key natural gas markets (2014-2021)



* Northeast Asia = China, Japan and Korea.

Sources: IEA analysis based on various sources, including CME (2022), Volume and Open Interest; ICE (2022), Report Center; London Energy Brokers' Association (2022), Monthly Volume Reports.

INTEGRATED GAS
A WORLD LEADER IN LNG: RESILIENT CASH GENERATION

	Targets
Lead the market ■ Grow market footprint by creating new markets and embracing new customers ■ Build material LNG for transport business	**>20%** Market share in LNG bunkering sales by 2030
Run the business ■ Unmatched portfolio optionality and resilience ■ Aiming to grow value from GTL products	**~20%** Opex reduction by 2022 vs 2019
Grow the business ■ Selective investment in competitive LNG assets ■ Greater value, volume and optionality with diversified sources of supply	**>7 mtpa** New LNG capacity onstream by middle of the decade

Q4 progress examples

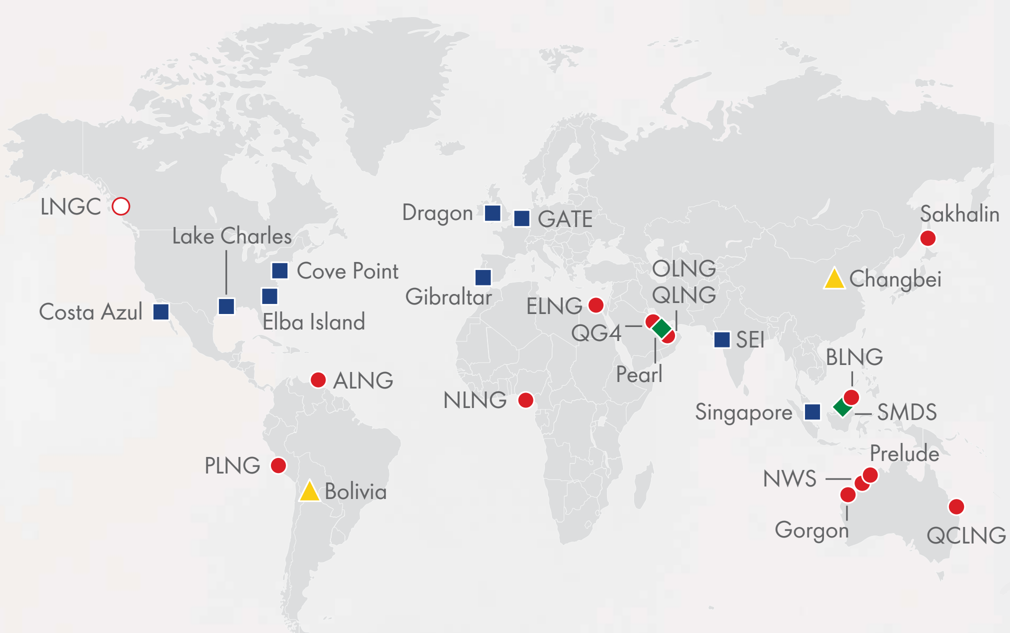
- First liquefied biomethane (BioLNG) bunkering trial in Rotterdam, together with CMA CGM container shipping
- Shell and Keppel LNG bunkering JV in Singapore won the 'Outstanding Contribution to the LNG Industry in 2021 Award' at the World LNG Summit in Rome
- Committed to first pilot under the new GIIGNL, the International Group of Liquefied Natural Gas Importers, GHG Neutrality framework
- Announced a new gas trading operation in Nigeria to provide wholesale customers with more and cleaner energy solutions in the country
- Underlying opex has reduced by 15% in 2021 since 2019

CAPITAL ALLOCATION – NEXT PHASE
2021 DELIVERY AND OUTLOOK

			GROWTH PILLAR: THE FUTURE OF ENERGY		TRANSITION PILLAR: ENABLING OUR STRATEGY		UPSTREAM PILLAR: FUNDING OUR STRATEGY
	Net debt end-2021: $53 billion	Shell	Marketing	Renewables and Energy Solutions	Integrated Gas	Chemicals and Products	Upstream
Cash capex	Base Cash Capex	$19-22 billion	~$3 billion	$2-3 billion	~$4 billion	$4-5 billion	~$8 billion
	2021 Actuals	$20 billion	$5 billion		$9 billion		$6 billion
	2022 Outlook	Lower end of $23-27 billion	~$5-6 billion	~$3 billion	$4-5 billion	$4-5 billion	~$8 billion
	Beyond 2025		35-40%		30-40%		25-30%
Underlying Opex	Net debt >$65 billion	<$35 billion p.a.					
	2021 Actuals	$35 billion					
Divestments		$4 billion p.a. on average					
	2021 Actuals	$15 billion					
CFFO	2021 Actuals		~10%		~40%		~50%
	Beyond 2025		~25%		~45%		~30%

2022 Cash capex split by business is rounded and will be managed within the overall 2022 range.

INTEGRATED GAS PORTFOLIO & MAJOR PROJECTS



KEY

- Liquefaction plants
- Liquefaction plants under construction
- Regasification terminals
- GTL
- On-stream gas projects

Project	Country	Shell share %	Peak production kboe/d	LNG capacity mtpa	Shell-operated
Under construction – Start-up 2022-2023					
Arrow - Surat Gas	Australia	50	backfill		
Colibri	Trinidad & Tobago	87	backfill		✓
Gorgon - Jansz	Australia	25	backfill		
Oman Gas*	Oman	53	120		✓
Under construction – Start-up 2024+					
Gorgon - Jansz compression	Australia	25	backfill		
LNG Canada T1-2	Canada	40		14	
NLNG T7	Nigeria	26		7.6	
Pre-FID options					
Abadi	Indonesia	35	245	9.5	
East Med	Egypt	35	backfill		
LNG Canada Expansion	Canada	40		14	
Manatee	Trinidad & Tobago	100	backfill		✓
NWS - Browse	Australia	27	backfill		
Prelude - Crux	Australia	82	backfill		✓
QGC SW20+ Measure	Australia	62	backfill		✓
Tanzania	Tanzania	25	[A]	15	✓

*FID of the project subject to the issuance of a Royal Decree by the government of the Sultanate of Oman confirming award of the Block 10 Concession Agreement.

Projects listed are a selection of our project portfolio. Peak production and LNG capacity are 100%. [A] to be confirmed.

LNG Supply FIDs Starting to Happen, Does Shell Need to Get LNG Canada Phase 2 FID in the Queue To Protect Its Brownfield Advantages?

Posted 4pm on November 23, 2021

Asian LNG buyers and now LNG suppliers are responding to the abrupt change in LNG supply/demand outlook in April. Unplanned delays to the start up of 5.0 bcf/d of Mozambique LNG put a major hole in all LNG supply plans/forecasts for the 2020s creating a new and larger LNG supply gap. This first drove Asian LNG buyers to abruptly pivot to lock in stable long term LNG supply and now, LNG suppliers are taking FIDs (ie. Woodside on Scarborough yesterday) and looking at the next round of potential FIDs on both brownfield and greenfield LNG projects to fill that gap. This increase is happening at a time of increasing competition/demand for global fabricators, metals, and services that are also being impacted by the general global supply chain stresses. There has been no chatter that Shell will be considering FID on the brownfield LNG Canada Phase 2 (capacity 1.8 bf/d). But, unfortunately for LNG Canada Phase 2 or any major industrial project, these global/domestic stresses reduce the time to think about any FID. We think this means the timing is likely in the next few months for Shell to look at FID on LNG Canada Phase 2 if it wants to get in the queue to ensure it can maintain its brownfield cost advantages. LNG markets have seen the cost and timing advantages of a continuous construction cycle ie. like Cheniere does at Sabine Pass LNG. By now, we mean within the next few months, and not the next year. Any FID is a major undertaking and far from certain especially for a leader in the Energy Transition like Shell. But, we think the answer to the question is more likely a Yes, than a No. And if so, it would be huge for the value of Canadian natural gas.

<u>The reality check at COP26 meant there is no clear phase out of fossil fuels, especially natural gas.</u> COP26 was extended an extra day to end on Saturday but did result in an agreement signed by over 200 countries. The deal was universally viewed as far less than the aspirations leading up to COP26. It seemed that reality won or at least delayed the aspirations. One highly notable item was the watering down of "get rid of coal" to" phase out" of coal to the approved text of a phase down. The best description came from COP26 President Alok Sharma (UK) concluding media statement. He said "*I would say, however, that this is a fragile win. We have kept 1.5 alive. That was our overarching objective when we set off on this journey two years ago, taking on the role of the COP presidency designate. But I would still say that the pulse of 1.5 is weak."* It is important to remember that the actual commitments made by some key countries will be much less than the commitments in the already criticized Glasgow Climate Pact [LINK] because there are always side deals or understandings that aren't public that were made just to get countries to sign on to the Glasgow Climate Pact so there can be a global commitment.

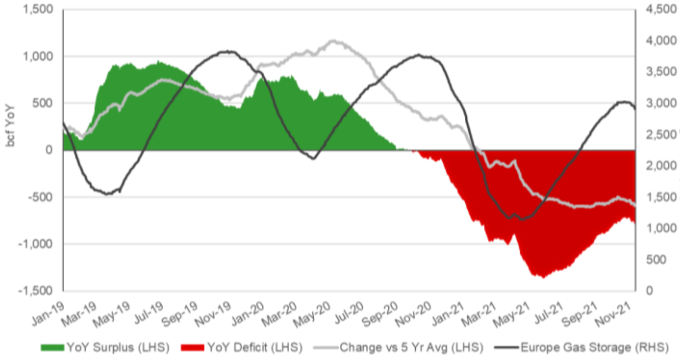
<u>Rather more world Energy Transitiony leaders are either directly or indirectly saying the energy transition plan isn't working</u>. Perhaps the best sign that the energy transition plan isn't working is that the Net Zero leaders are changing their messaging. They want to be able to be on record in the future that they warned people. (i) Its not working and the reality that the plan needs to change. The most vocal is Macron who warns the energy transition aspiration has to be modified/reduced or else there will be years of an energy crisis. Even more importantly, he wants to bring a more pragmatic Energy Transition plan to the EU. On Nov 9, we tweeted [LINK] on Macro's address to the nation [LINK] that closed with his call for a more practical approach to the CO2 emissions and one that will include Europe. Macron said "*But France will not be strong alone. With the European Union: ➜ We will be able to build a credible strategy for reducing our CO2 emissions, compatible with our industrial and technological sovereignty."* The Macron release had at the bottom a reminder "*Next January, it is a new model of investment and growth that the President will defend with the French presidency of the Council of the European Union."* The day before COP26 started, we tweeted [LINK] on Macron's comments to the FT [LINK] that was a clear view on higher fossil fuel prices for the foreseeable future. Macron said, "*on demand for fossil fuels isn't going away for the foreseeable future*." Macron said "*What is happening now is ironic, because we are building a system where in the medium and long term fossil energy will cost more and more, that's what we want [to fight climate change]."* he said," Japan is another calling for a pragmatic time frame. On Nov 9, we tweeted [LINK] on Japan's release [LINK] on its conference with IEA Executive Director Faith Birol. Japan wrote "*The two sides also exchanged views on acceleration of decarbonization efforts following COP26, and shared the importance on measures with pragmatic time frame based on individual circumstances that each countries face including its renewable energy potentials".* (ii) Others just want to be able to say they warned people it would be expensive for years to come. The US is the best example. On Nov 8, we tweeted [LINK] on Energy Secretary Granholm's MSNBC Morning Joe comments. Biden never warned votes that the energy transition will happen but will lead to higher prices on oil, natural gas, and

electricity for years to come. We created a transcript of her saying "*So the long-term strategy is that. and yes we have a short term cost issue because the economy is still coming back on. we have a supply, demand that does not, the supply doesn't meet the demand. that is an issue we are going through. The president is all over this both in the short term and in the long term*."

<u>COP26 did not hurt the outlook for natural gas, rather Europe is helping the financing for natural gas.</u> One of our COP26 themes was that pro Net Zero companies and governments would wait until after COP26 to announce or approve items that wouldn't go over well at COP26. One of the climate change side criticisms of the EU is that the EU is shifting their relaxed position on nuclear and natural gas. On November 4, there was an excellent interview in Belgian news, L'Echo with Frans Timmermans, VP of the European Commission, who they describe as the "Mr. Climate" of the European Executive. Timmermans pointed to the shifting position on nuclear and natural gas so both could be considered as green investments for financing purposes. L'Echo asked "*The Commission must clarify its position on the taxonomy which defines the investments which can be categorized as "green". According to a press leak, nuclear and gas are in the project: will they stay there?"* Timmermans replied "*We have not yet made a decision, we will do so in a few weeks. Nuclear power is by no means green in the sense that it would be sustainable: there is a necessary fuel and waste. The principle of green energy is that it does not need fuel and does not produce waste. As for natural gas, your country is a good example: if you want renewable energies, in the transition you may need natural gas. You need to define its importance as transitional equipment, and you also need to avoid being locked into natural gas forever."*

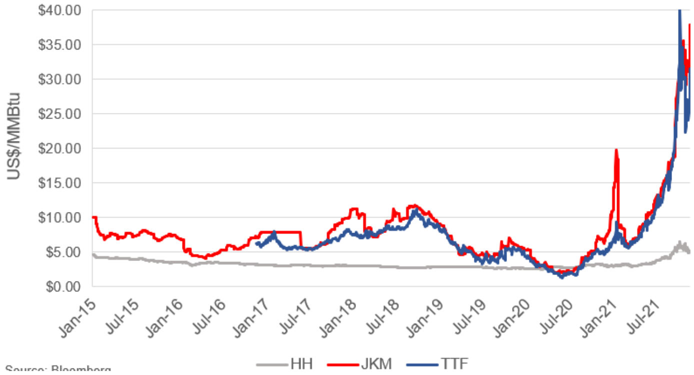
<u>It's been a great year for LNG prices and LNG supply/demand looks strong thru 2030.</u> We feel for the Net Zero fans the Europe energy/natural gas crisis just happened to show up in 2021 ahead of COP26 and Europeans realized that intermittent wind/solar can lead to big electricity and natural gas spikes, and even return to coal. It was also the year that natural gas followers realized the linkage of global natural gas markets and how Europe gas storage is the key indicator for the near-term direction of LNG and natural gas prices. It was a cold winter and Europe gas storage never caught up and still hasn't caught up. We first described this concept back in September 2017 and said Europe is the dumping ground for surplus LNG cargoes. When Europe isn't getting a lot of LNG cargoes, it means those LNG cargoes are wanted/needed in other parts of the world. It was the highest linkage of oil to natural gas markets to electricity markets in a long time. Natural gas and LNG prices hit records and are still exceptionally strong and winter hasn't even started. The outlook for LNG looks strong through the 2030 for the reasons noted later in the memo. Below we pasted Cheniere's current LNG long term supply outlook and most long-term outlooks are similar. LNG markets are very tight thru 2025 and need new supply thereafter. The problem with tight supply is that if anything disrupts supply, there are price spikes. Here is what Cheniere said on its Q3 call "*We now estimate that this tight market could extend well through 2025 and potentially tighter seasonal swings over the midterm period, especially for production from legacy plans remains inelastic and the current constraints on the coal supply cycle persist*."

Europe Gas Storage as of Nov 12, 2021



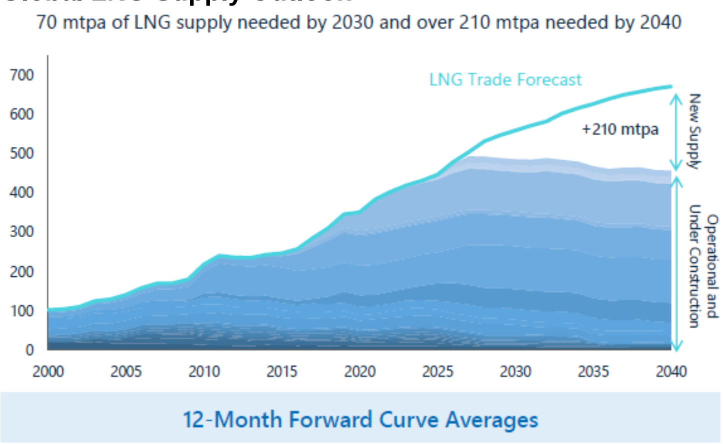
Source: Bloomberg

JKM, TTF and HH Prices



Source: Bloomberg

Global LNG Supply Outlook



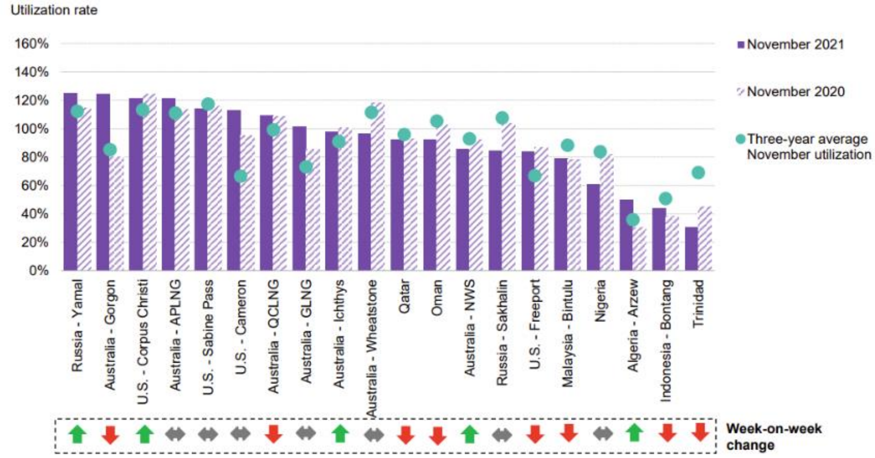
Source: Cheniere Q3/21 Call Investor Presentation

<u>There are no strategic LNG reserves or immediate fix to draw upon if any existing LNG supply goes down, or under construction LNG supply gets delayed.</u> Earlier today, the US and others drew up their strategic oil reserves ie. the oil reserves that are stored away never to be touched unless there is an emergence supply shortage. These strategic reserves are separate from working commercial crude oil inventories. There are no such "strategic" reserves for LNG. The only way to replace a negative LNG supply surprise is to draw on existing LNG commercial storage, existing LNG supply capacity elsewhere or cut back on demand. There is no such thing as having new replacement LNG supply show up in a year or two or three. Rather new replacement LNG supply takes at least 3 or 4 years to hit the market and that is only if there is an existing brownfield expansion that is effectively ready to go like a Cheniere Corpus Christi LNG Phase.

<u>A number of unplanned supply interruptions from in-service LNG supply projects help create the today's tight LNG market.</u> There have been many interruptions in the past year from existing LNG supply projects. No surprise, it seems to happen to older LNG supply projects. These are temporary so only impact the near term LNG supply/demand balance, but it also reminds that most older LNG supply projects export well below capacity. They also remind Asian LNG buyers that there is risk to existing LNG supply. Lastly, it is important to remember that the issue for all older LNG supply projects is that, unless they are drilling to add more reserves, the natural gas reserves supply the LNG will eventually come to an end. A few examples of interruptions. (i) Equinor's Melkoeya 0.63 bcf/d in Norway was 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. The original restart date was Oct 1, 2021 but that was revised to March 31, 2022 with the caveat *"there is still uncertainty related to how the*

Covid-19 development will impact the project progress." (ii) Algeria's 0.5 bcf/d Skikda LNG Plant had an unplanned 8-week shut down due to failure of gas turbine control mechanism. Skikda also had an unplanned 6-mnth shut down in 2020. (iii) Petronas Bintulu LNG in Malaysia, there have been multiple reports that Petronas has been seeking approval for the cancellation of some winter cargoes due to upstream natural gas quality issues. (iv) Chevron Gorgon LNG. This was the high profile unplanned outages that caused each of the three trains to have unplanned repairs staring in H1/20. Even another one last week. On Nov 16, Reuters reported ""*Train 1 was shut down due to a small gas leak," the spokesperson said, adding that it was too early to tell how long the unit would be down. "We are preparing plans for investigation and repairs." The leak was detected on piping associated with the dehydration unit on Train 1 and the unit was shut down as a precautionary measure.* As of this morning, still no word on how long it will be down. The three trains have a total capacity of ~2.3 bcf/d. Gorgon produced ~2.3 bcf/d in 2019 but was down to 2.0 bcf/d in 2020. (v) Last November, the 1.03 bcf/d Qatargas LNG Train 1 had a 3-week unplanned shut down for a compressor repair. (vi) There have been many more LNG supply interruptions or reduced LNG cargoes from in-service LNG supply projects, whether it be from hurricanes, or production issues at Chevron Wheatstone or, even yesterday Bloomberg reported that the 0.9 bcf/d capacity Brunei LNG export project "*requested to reduce volumes for winter delivery to long-term buyers due to an upstream natural gas production issue, according to traders with knowledge of the matter."*

LNG Plant Utilization Rates (As of November 14, 2021)



Source: Bloomberg

<u>The game changer for LNG supply was the delay of 5.0 bcf/d of Mozambique LNG that was originally expected to start exporting in 2024.</u> We think the market didn't appreciate the full impact of TotalEnergies April 26 declaration of force majeure on its 1.7 bcf/d Mozambique LNG Phase 1. Surprisingly, markets didn't look to 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. This 5 bcf/d of Mozambique LNG supply was built into all, LNG supply forecasts. The delay in TotalEnergies Phase 1 would lead to a commensurate delay in its Mozambique LNG Phase 2 of 1.3 bcf/d. TotalEnergies 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. The original in-service for Phase 1 was 2024, which was then pushed back to 2025. In the Sept investor outlook, TotalEnergies said "*This forecast of upstream production in 2026 includes Mozambique LNG production only in 2026. This relies on the assumption that the project activity will review in 2022.*" In its Oct 28 Q3 call, TotalEnergies seemed to suggest any restart wouldn't be in early 2022. Mgmt said "*we remain fully committed to develop this project, the resource coming from Area 1. But only of course when the condition will allow. We, for obvious reasons, a stable and peaceful environment to be able to mobilize our staff. And its not possible at the present time. We will see if it will be possible next year, in 2022, and if it's the case, production could be there in 2026, exactly what we indicated in September during the investor day. So we are committed to this project. It's there of course, so now we have to be patient and see how the situation will improve in the coming months".* If

Phase 1 is pushed back 2 years to at least 2026 so will the follow up 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 but was always expected to follow TotalEnergies Phase 1. In the Oct 29 Q3 call, Exxon mgmt gave no indication of any movement on its Rozuma LNG with mgmt saying *"paused simply because of the security situation on the ground, which we will continue to look at and revisit over time".* If we assume the same one-year delay, it would put Exxon Rozuma at 2027/2028 at the earliest instead of its original 2025. What this all 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.

<u>Mozambique force majeure didn't attract the big attention because the major LNG suppliers didn't highlight the Mozambique impact for the first two months.</u> It was difficult for markets to see the bigger issue when the major LNG suppliers weren't making a big deal of Mozambique for the first two months. 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".* We previously wrote how could Cheniere 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".*

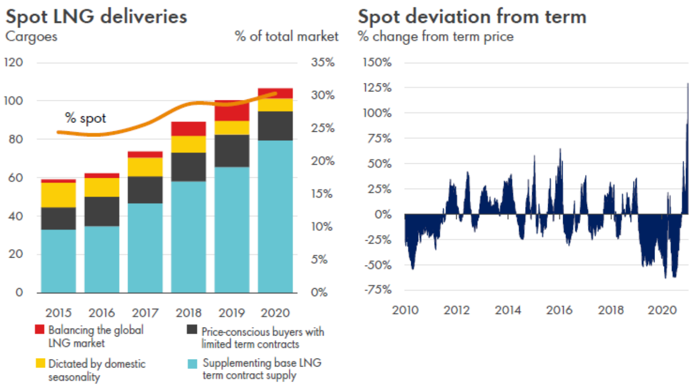
<u>But at the end of June, major LNG suppliers came out with bullish mid/long term talk or action</u>. (i) Our July 4, 2021 Energy Tidbits memo noted that it looks like Cheniere has stopped playing stupid with respect to the strengthening LNG market in 2021. We can't believe they thought they were fooling anyone, especially their competitors. 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. (ii) On June 23, Qatar Petroleum was clear that they saw an LNG supply gap. We tweeted [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".* And importantly, 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."

Markets felt reassured by Qatar's massive expansion without realizing India alone needs 3x the Qatar expansion LNG capacity. Qatar's LNG expansion is huge and plans to add 4.3 bcf/d capacity. However, India alone needs 3x that amount of LNG. On Oct 22, Petronet CEO Singh presented at the India Energy Forum on Friday. As soon as we saw the reports, we tweeted [LINK] "*Bullish for #LNG #NatGas in 2020s. #Petronet CEO fcasts India LNG imports +12.4 bcfd to reach 15.8 bcfd (120 MTPA) in 2030. In line with his June est, see below SAF Group June 20 Energy Tidbits #Petronet sees LNG imports +13 bcfd to 2030. Thx @JournoDebjit @rajeshsing13 #OOTT".* Bloomberg's India energy team reported "*India's import of natural gas is expected to hit 120 million tons/year by 2030 as the nation targets an energy mix goal, Akshay Kumar Singh, CEO of Petronet LNG, said at the India Energy Forum by CERAWeek. NOTE: India aims to boost use to natural gas to 15% of primary energy mix from about 6% now. * India's current annual LNG import is about 26 million tons".* Singh is forecasting India's LNG imports to grow from current 26 MTPA (3.4 bcf/d) to 120 MTPA (15.8 bcf/d) in 2030. That is an increase of 12.4 bcf/d to 2030. This is 3x the massive Qatar expansion capacity.

The late June/early July sea change in Asian LNG buyers contracting is the best validation of the LNG supply gap and gamechanger for LNG supply FIDs. Analysts can make forecasts, but the best evidence of the supply gap is Asian LNG buyers are putting money up to change their contracting moving away from spot/short term to locking in long term LNG supply through 2030. This is an abrupt turn from Asian LNG buyers contracting strategy in 2019 and 2020, when the Asian LNG buyer 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 less than long term contract prices. 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 showed this pre-Mozambique force majeure trend. But post Mozambique LNG force majeure, clearly Asian LNG buyers did the math, saw a new, sooner and larger LNG supply gap and were working the phones in March/April/May trying to lock up long term supply. 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. Its why wrote our 8-pg July 14 blog, "Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs" that started off "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." Since late June, there have been at least nine Asian LNG buyer long term deals with total volumes of 2.57 bcf/d with an average term of 15 years. In addition, there are reports of Asian LNG buyers about to join this group such as Hokkaido Gas who is looking for 5-10 year LNG supply starting after 2025. Note that in addition to the Asian LNG buyers deals, there have been European long-term deals including PGNiG (Poland) agreement to purchase an additional 2 mtpa (0.26 bcf/d) for 20 years from Venture Global.

Spot LNG deliveries and Spot deviation from term price



Source: Shell LNG Outlook 2021 on Feb 25, 2021

Asian LNG Buyers Long Term Deals Signed Since July 1, 2021

Signed Long-Term Asian LNG Deals Since July 1, 2021					
Date	Buyer	Seller	Country	Volume	Duration
			Buyer / Seller	(bcf/d)	Years
July 7, 2021	CNOOC	Petronas	China / Canada	0.30	10.0
July 9, 2021	CPC	Qatar Petroleum	Taiwan / Qatar	0.16	15.0
July 9, 2021	Guangzhou Gas	BP	China / US	0.13	12.0
July 12, 2021	Korea Gas	Qatar Petroleum	Korea / Qatar	0.25	20.0
September 29, 2021	CNOOC	Qatar Petroleum	China / Qatar	0.50	15.0
October 11, 2021	ENN	Cheniere	China / US	0.12	13.0
November 4, 2021	Unipec	Venture Global LNG	China / US	0.46	20.0
November 4, 2021	Sinopec	Venture Global LNG	China / US	0.53	20.0
November 5, 2021	Sinochem	Cheniere	China / US	0.12	17.5
Total Asian LNG Buyers New Long Term Contracts Since Jul/21				**2.57**	
*Excludes Asian short term/spot deals					
*Excludes non-Asian long term deals ie. Poland's PGNiG new 20-yr deal for 0.26 bcf/d from Venture Global					

Source: Bloomberg

<u>An even stronger validation when the world's largest LNG importer, Japan's JERA, is paying $2.5b to buy 25.7% in Freeport LNG to secure stable LNG supply.</u> Entering into long term supply contracts is a big validator but there was an even bigger validation on last Monday Nov 15, when Japan's JERA announced [LINK] it was spending $2.5b to acquire a 25.7% interest n Freeport LNG "to secure a stable LNG supply". This is an even stronger validation that a long term contract. JERA is the world's largest LNG buyer. JERA announced it "*JERA will not only be involved in the entire existing Freeport LNG project (three trains with an annual production capacity of approximately 15.45 mtpa) but will also work with FLNG to advance new LNG projects including production capacity expansion and the development of Train 4.*" The existing three LNG trains capacity is 2.0 bcf/d.,

<u>Long term LNG supply deals provide the needed anchor for new LNG FIDs</u>. The return of long-term LNG supply deals provides the financing capacity or financial comfort to commit to new LNG supply FIDs. These are critical for the independent LNG supply players who will not FID without a certain minimum long term contract coverage. We recognize supermajors, like Shell, have their own financial capacity and do not need the financing potential of long-term LNG deals to FID a project. Rather the long-term contracts provide the financial comfort to make a FID. Whether is financial comfort or capacity, the abrupt change for Asian LNG buyers to commit to long-term LNG supply deals are a game changer for LNG markets and sets the stage for LNG FIDs.

<u>And it looks like we are seeing the start of FIDs on both brownfield LNG and stalled greenfield LNG - we expect more in the coming months.</u> It looks like LNG supply projects, both brownfield and greenfield, are now moving to FID or are trying to get to FID in the coming months. Yesterday, Woodside Petroleum announced it made FID on its $12.0 billion LNG development at Scarborough/Pluto Trains to add up to 1.05 bcf/d with first LNG cargo in 2026. Woodside highlighted they

estimated >13.5% IRR and payback of 6 years. Prior to this FID, over the past few months there were clear comments/signals from other LNG players on the potential for near term FIDs on new LNG supply. In our July 14 blog, we said "*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*." More on the supply chain later, but we did not expect to see any major LNG announcements during COP26. Rather we expect the window is for the next few months.

- Cheniere Corpus Christi Stage 3. Cheniere has been publicly calling for FID in 2022 with most expectations being for early in 2022.

- Cheniere Corpus Christi Stage 4. In the Q&A of the Q3 call on Nov 4, Cheniere was asked if they are even thinking about the Corpus Christi Stage 4 at this point. Mgmt replied Yes.

- Woodfibre LNG. We look at Woodfibre LNG as the British Columbia LNG supply project that minds its own business and just keeps advancing to FID. There is one train with capacity of 0.3 bcf/d and is supported by 15-yr sales contracts with BP. Earlier today, Woodfibre announced [LINK] that it signed an EPFC contract with McDermott International. In the release, Woodfibre said "*In addition to the EPFC work, McDermott will also be responsible for commissioning and start-up services. Pre-installation work for the project is planned for early 2022 and will gradually ramp up to September 2023, when major construction is targeted to begin. Major works will continue through to substantial completion, expected in Q3 2027.*"

- Tanzania. Perhaps the best indicator of how Mozambique force majeure changed the LNG outlook. Tanzania LNG went off the radar when Equinor wrote off its investment in 2019. Post Mozambique force majeure Equinor and Shell wrote Tanzania that there was a limited window if Tanzania is to have a change at resurrecting the LNG potential. On Nov 8, Tanzania Energy Minister Makamba tweeted [LINK] he has started negotiations with Shell, Equinor, Pavillion, ExxonMObil and Ophir to work to an LNG FID in the next 6 months. Its not clear if they were working for a broader LNG area but, prior to this year, the Equinor/Shell potential Tanzania project was a potential 1.3 bcf/d LNG export project.

- BP Mauritania FLNG Phase 2. In the Q&A of the BP Q3 call, mgmt replied "*And Tortue, we're going well with Phase one. And we're taking a look at Phase two and trying to come to agreement with partners, government and our own engineers on what is the right thing to do. So stay tuned.*" Mauritania is a 4-phase FLNG, Phase 1 is 0.33 bcf/d capacity.

- Tellurian Driftwood LNG. We have trouble following the public comments and videos from mgmt, but we continued to see reports that FID is now expected to be in H1/22.

- TotalEnergies Papua LNG 0.74 bcf/d is back on track. 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."*

<u>Does the increasing competition/demand for global fabricators, services, etc mean Shell will have to get LNG Canada Phase 2 FID in the queue if they want to protect its brownfield cost and timing advantage.</u> We recognize that LNG Canada Phase 2 FID is not on radars and most North American LNG outlooks don't even mention it as a possibility. But we believe the continuing global supply chain stresses and movement by others to look at new FIDs are likely to have Shell consider FID for LNG Canada Phase 2 in the coming few months and not wait a year. We think the issue for Shell to FID LNG Canada Phase 2 has moved from a market risk to an execution risk ie. how/can they ensure Phase 2 can have the

cost and timing benefit of a brownfield projects. All anyone knows from the outside is that the Asian LNG buyers want security of supply and LNG suppliers are now moving now to add supply to fill the increasing supply gap. Those aren't market guesses; they are simply a reflection of what the people who have to commit capital are doing. Their financial actions/commitments are the best indicator for this increasing supply gap. Plus, the one thing that is clear from LNG supply is that the risk is almost always to downside to unplanned delays or interruptions. The LNG market looks to be there so the key risk factor Shell on LNG Canada Phase 2 is execution risk. The risk to any major construction project has heightened with the pandemic causing global fabricator, global metals, steel, experienced services, and other supply chain issues. The challenges facing major industrial projects is more than the general supply chain issues. The reason why we think Shell is faced with a near-term decision for FID on LNG Canada Phase 2 is that, if they want to have a chance to have the brownfield cost and timing benefits in a world of increasing supply chain issues, we believe they will have to have what we call a continuous construction cycle for Phase 2, ie. retain the spot in the queue for the global fabricators, global and domestic suppliers and trades from Phase 1 and move seamlessly to Phase 2. On Oct 7, LNG Canada announced [LINK] "*Three years after taking a final investment decision (FID) on Canada's first major liquefied natural gas project, the LNG Canada consortium said October 6 the C$40bn (US$31.7bn) project was more than 50% complete. "We're moving swiftly towards commissioning and start-up, and to fulfilling our promise of delivering a world-class LNG facility in Kitimat*." There are different services, trades, people, fabricators, steel, equipment, etc at different phases and LNG Canada would want to retain the options for these services if they want to have the cost advantage of brownfield costs and time to completion. And maintaining a continuous construction cycle is even more important given that there are more global LNG supply projects now moving to FID. We have to believe LNG Canada will want to exercise any options with services and maintain any overseas fabricator slots to keep alive the possibility of a continuous construction cycle. This is the model that Cheniere has used successful in delivering its LNG phases on time and on budget. Its why we believe its now the time for Shell to FID LNG Canada Phase 2. If they are unable to retain any overseas fabricator slots, international service companies and domestic services/trades, it would add to the cost and timeline of LNG Canada Phase 2 vs the costs of a continuous construction cycle. Don't forget they are looking at a much stronger LNG outlook for the 2020s today than a year ago.

<u>LNG Canada Phase 2 will lift the overall project returns.</u> LNG Canada Phase 2 would add two additional trains and capacity of ~1.8 bcf/d and increase the project capacity to ~3.6 bcf/d. We do not know the internal LNG Canada project returns. Phase 1 would have lesser returns as it is burdened with some one-time costs and added costs to set up for the potential of Phase 2. Phase 2 as the brownfield leg would have significantly higher returns and adding Phase 2 would bump the returns of LNG Canada in total.

<u>Sounds like momentum on TC Energy and LNG Canada resolving their cost overrun dispute - If not, then we don't see how there will be a FID on LNG Canada Phase 2.</u> We continue to believe that a key business issue holding back any Shell FID on LNG Canada Phase 2 has been the unresolved cost and timing dispute with TC Energy on the construction of the Coastal GasLink. This is the sole pipeline to deliver natural gas to LNG Canada. The Coastal GasLink pipeline was designed to be able to expand capacity to have enough capacity to support both Phase 1 and 2. But we have believed (and still believe) that LNG Canada would not proceed with Phase 2 until there was a resolve on the cost dispute with TC Energy. There had been no indications pointing to a resolve until the TC Energy Q3 results on Nov 5. In the Q3 report, TC Energy disclosed they had *"committed to provide additional temporary financing to the project, if necessary, of up to $3.3 billion as a bridge to a required increase in project-level financing to fund incremental cost*s." In addition, in the Q3 call Q&A mgmt gave the most optimistic comments we have noted on the potential for resolve. Mgmt said "*we can of course discuss the details of any discussions on cost and schedule in the issues between us because they're confidential. But what I can say is that we're very hopeful that ultimately we're going to reach an agreement between us on those issues and that of course will lead to the resolution of some of the temporary financing as well*." There is no guarantee of a resolve, but it seems like there is momentum to get to a resolve. And resolving this cost dispute is needed for any LNG Canada Phase 2 FID. Don't forget, similar to LNG Canada, Coastal GasLink overall economics will get a boost with the full capacity to supply Phase 2 ie. there is economic upside to TC Energy to get the expansion.

<u>Shell has given no formal indications of looking at FID, but it feels like Shell's CEO has been showcasing LNG Canada for some reason</u>. We often find that big companies will drop hints of some things that might come. Shell did this on LNG

Canada Phase 1, we highlighted the hints we saw coming from Shell on our expectations for FID several months ahead of others because of these hints. Shell has given no formal indication that they are considering FID of LNG Canada Phase 2. We believe Shell is one of the leaders in the Energy Transition and Shell CEO van Beurden brings a common-sense view to that leadership. Shell has highlighted how lower emission LNG will be critical to provide long term cash flow to fund the emissions reductions. So, his recent comments seemed to showcase LNG Canada as one of the key long term cash flow sources and we do not believe he would have showcased LNG Canada in this manner if it was only going to be Phase 1. It would seem to us to be disproportional showcasing.

- On Oct 6, Shell CEO van Beurden made a point of showcasing LNG Canada and saying he expected it to still exist in the 50s and later. Phase 1 starts up in the mid 2020s (most assume no later than 2025) and we don't expect he would be showcasing a 30+ year Phase 1 to be operating in the normally big company CEOs showcase a project for a reason. Platts reported [LINK] *"LNG and certainly chemicals and products are going to be relevant for a long time to come — LNG, think of it as a stayer in our portfolio," he said, adding Shell had been "proven right" in its expectation of 4% annual demand growth for LNG. "In the long run — think second half of this century — many of our LNG positions will still be in play. <u>Building LNG Canada at the moment, I don't expect that to be wound down in the '40s, I expect it to still exist in the '50s and later</u>," Van Beurden said. "Whatever we build, we'd better make sure it's carbon competitive, it's first quartile, it can be decarbonized, and therefore it's still relevant in a world that hopefully by then is a net-zero world."*

- In the Q&A of the Q3 call Oct 29, it seemed that CEO van Beurden showcased LNG Canada. He was asked if putting the emissions targets out there has any implications to grow the LNG business or does that imply a shift from equity volumes to be an offtaker for LNG. Van Beurden replied "*But on your other point, the LNG plants, yes, indeed, I do have a -- and sort of quantum of automations. And of course, the ones we operate, which are quite a few actually come onto our account. So we've been very clear that if we want to build new LNG plants, that better come with very competitive carbon footprints on the operational side. And we have to find ways to offset this and offset not with nature based solutions, but offset it with savings elsewhere. So I've been very clear with our organization. <u>If we are to do another energy brands, say for instance in Canada,</u> it needs to come either without emissions or you need to find a way to reduce emissions elsewhere, because we are on a trajectory to bring down our emissions to net zero by 2050".* We don't think van Beurden had to include his *"for instance in Canada*" in his response. It just seemed to be another example of van Buerden showcasing LNG Canada as a place for future growth in equity LNG volumes.

<u>An LNG Canada Phase 2 would be a huge 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 showed 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. An 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. It would provide demand offset versus Trudeau if he moves to make electricity "emissions free" and not his prior "net zero emissions". Both Asian LNG buyers and LNG suppliers are making big capital commitments to secure long term LNG supply. The LNG outlook has changed and COP26 did not disrupt this outlook. An FID for LNG Canada Phase 2 would 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 to Asia 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. We think the next few months are likely the right time for Shell to look at FID for LNG Canada Phase 2 as, in a world of increasing supply chain shortfalls, they need to make sure they can commit to fabricators, services and trades for a continuous construction cycle to maintain brownfield costs and time to completion ie. a Cheniere type advantage. Who knows what Shell will decide, CEO van Buerden's recent showcasing of LNG Canada reminds us what happened in 2018 ahead of the LNG Canada Phase 1 FID. Just imagine the future value of Cdn natural gas if there is visibility for 3.6 bcf/d of Western Canada natural gas to be exported to Asia.

<u>This is far from an easy decision for Shell, but we think the likely answer is Yes, and not No.</u> We recognize that there has been no chatter that Shell is or will be considering FID on LNG Canada Phase 2 and it may not be the ideal time. Shell is

a leader in the Energy Transition but has also been extremely logical/rational in how to accelerate emissions reductions. LNG looks very strong thru 2030 and Asian LNG buyers have abruptly shifted to looking for long term LNG supply. Woodside went FID on its Scarborough/Pluto LNG project yesterday, and other LNG suppliers are pointing to FIDs on multiple brownfield and greenfield FIDs in the coming year. Shell has an advantage that LNG Canada Phase 2 is a large brownfield 1.8 bcf/d phase. The timing may not be ideal, but we believe the world of increasing demand stresses on global fabrications, services, etc mean that it will be important to get LNG Canada Phase 2 in the queue for global and domestic services/fabricators. Everyone in western Canada will hope so because a FID will be a huge game changer to western Canada natural gas valuations. LNG Supply FIDs are starting to happen, does Shell need to get LNG Canada Phase 2 FID in the queue to protect its brownfield advantages? Only Shell knows, but we believe the abrupt positive changes to the LNG market in the face of continuing global supply chain stresses mean the answer is Yes and the timing is the next few months and not the next year. This would be big to Cdn natural gas.

https://tass.ru/interviews/13263985
INTERVIEW DEC 22, 00:30

Shell head in Russia: financing of energy transition is impossible without oil and gas production

Ekaterina Grushetskaya

Ekaterina Grushetskaya was appointed the new head of Shell in Russia in August 2021, she became the first Russian woman in the history of the company in this position. She told TASS in her first interview about the direction in which Shell will develop in Russia and why the energy transition is impossible if oil and gas are abandoned.

- You headed Shell's Russian business during one of the most difficult times for the oil and gas industry. How would you define the challenges ahead in the face of pressure from the climate agenda, on the one hand, and a sharp recovery in demand, on the other?

- Of course, for me it is not only a great honor, but also a very great responsibility. I am the first Russian citizen in this position. This has certain advantages and certain difficulties.

As for external conditions, the period is certainly not easy - crises, pandemic and volatility. But we understand that traditional oil and gas remain the main part of the energy balance. At the same time, our entire industry, which is on the verge of cardinal changes, is faced with a dilemma, on the successful solution of which its future depends.

- What is the dilemma?

- First of all, the need to find a balance between the energy transition agenda, on the one hand, and the traditional directions related to hydrocarbons, on the other.

Shell is committed to achieving carbon neutrality by 2050. But we should not forget that humanity will need oil and especially gas for a long time, if we do not want the world economy to stop. The world's population is growing, and the rates of decarbonization of different countries and industrial sectors differ markedly and, in general, are difficult to predict. Therefore, the demand for hydrocarbons in the coming decades will remain even under the most ambitious energy transition scenarios.

And one more point - without the extraction of traditional reserves, it is extremely difficult to finance the new climate agenda. This is how energy works. And this is very important to understand.

Shell has faced unprecedented pressure from environmental activists this year, which even led to a court ruling to cut emissions by almost half by 2030. The proceedings are still ongoing. But how could such resolutions potentially affect the mining business?

- I would not like to guess now how court verdicts can affect the business - as you know, Shell has decided to appeal. This has become a very serious precedent for the concern. At the same time, we are already actively engaged in the climate agenda, it is part of our strategy. All project decisions at Shell are made only with our climate goals in mind.

The court ruling obliging Shell to cut its own emissions was an incentive for us to accelerate the implementation of the new corporate strategy of the group, and we are ready to meet this challenge, regardless of whether we win this appeal or not. In the third quarter of this year, we made a commitment to reduce net emissions from our own operations by 50% by 2030 from 2016 levels.

Another question is that it is not clear why exactly Shell was the focus of attention in this matter. A court decision against one company cannot replace the need to develop government policies aimed at reducing emissions, but at the same time ensuring energy security and access to energy sources. As we know, not all countries have equal opportunities in this regard.

- That is, it is still premature to talk about how such a decision, if it is finally adopted, can affect the company's production projects, including in Russia?

- Yes, prematurely. We understand that there is a need for the extraction of traditional resources and it will remain for decades. There are consumers who are interested in continuing oil and gas production. Therefore, our approach is to reduce emissions across all projects while meeting demand. And again, it is this activity that finances the transformation of our business for the purposes of energy transition.

In the era of energy transition, Russia remains a very important country for Shell, both in the upstream and downstream segments. And so we are pleased that the Russian government is taking decarbonization very seriously and is paying attention to this issue at the highest level, striving to become a carbon neutral economy by 2060.

- Do you agree with the opinion that such courts against mining companies can become a trend?

- For the industry, this is undoubtedly an unpleasant precedent. But, again, most companies make decisions about certain projects, already thinking about what kind of carbon footprint they will have.

Shell is already showing real results in reducing emissions. This is our argument in this litigation.

- Does adherence to ESG criteria somehow affect the profitability of Russian projects?

- ESG criteria are already a standard, and Shell only participates in projects where they are met. Without them, we do not make decisions in principle.
Our Russian assets are quite competitive in Shell's global portfolio, including in terms of ESG criteria.
- But this was not the reason for refusing to participate in the Meretoyakhaneftegaz project?
- No way. Meretoyakhaneftegaz is a special case when, unfortunately, the situation was not very favorable for the completion of the deal, since the study was going on during a pandemic. In addition, unfavorable macroeconomic factors were superimposed. Unfortunately, in such conditions and against the background of a shift in terms, we had to make a decision to withdraw from the project.
- Does this only apply to a separate project? In general, what is your attitude towards projects in the Arctic?
- Yes, I mean only MNG. As for work in the Arctic, in principle, it is not currently a priority for Shell, and we do not plan to consider new exploration projects on the shelf beyond the Arctic Circle - we are only considering onshore.
At the end of last year, we created a joint venture for geological exploration, Gydan Energy, with Gazprom Neft in the Arctic. These are truly harsh, harsh Arctic conditions. Recently, our joint venture completed the drilling of the first well, and geological studies are now underway.
- Are the results expected to be encouraging?
- It is too early to talk about it. It is important that our partnership with Gazprom Neft is very successful, as evidenced by the work of the Salym Petroleum Development JV (since 2003 it has been developing the Salym group of oil fields in the Khanty-Mansi Autonomous Okrug - TASS note). To date, cumulative production from these fields has exceeded 100 million tons of oil since the launch of the project, and the total length of wells drilled is 5 million meters.
- Russia plans to increase LNG production several times by 2035, up to 130 million tons per year. Do your forecasts for the LNG market match this estimate?
- Russia has a huge development potential in this area, given its proximity to the promising Asian region. Now, of course, Russia is still underrepresented in the global LNG market: 19% of the world's residual gas reserves versus 8% of the world's LNG production.
At the same time, the demand for liquefied gas is growing. By 2040, it will reach about 700 million tons per year, that is, it will almost double compared to the 2020 level. And at the same time, 75% of this growth will be concentrated in Asia, in close proximity to the Russian resource base. Therefore, it is logical that Russia will occupy a significant place here. At the same time, we see that production capacity is not enough to meet this demand.
In this sense, we would like to participate in such projects in the Far East, because the Asian market, of course, is in need of this energy resource.
- That is, Shell's ambitions in the development of the LNG business lie in the Far East region?
- Not necessarily just there. I'm talking about where it makes sense to develop this area in terms of proximity to the Asian region. But we may be interested in other regions as well.
- But in the Far East the question of the raw material base is acute ...
- It's true.
- In this regard, I would like to ask, will we still see progress in expanding the raw material base for the Sakhalin-2 project?
- We are working on this, but there is no progress in these negotiations yet. The first issue now is to fill the two existing lines of the LNG plant.
- How interested are you in maintaining your participation in the Sakhalin-2 project and extending the PSA after 2041? What is the main difficulty in prolonging the agreement?
- We would like to continue to participate in this project after 2041, but this must always be economically justified.
- Are you talking about changing the economic conditions of the PSA?
- First of all, we are talking about the efficient management of the company, about ensuring the filling of production lines, about an integrated economic model of the enterprise itself from the point of view of both production and supply of LNG.
- At what stage is this question now?
- This is all discussed at the working level within the Sakhalin Energy committees (operator of the Sakhalin-2 project - TASS note). And there is constant contact with the Russian side, as this is part of the PSA management.
- Sakhalin Energy recently sold the first batch of green LNG. This is such a new story for the market. Do you think there will be a steady demand for this product? Are buyers willing to pay extra for the "clean" label?
- The question is correct, but you yourself are answering it. The demand for carbon neutral LNG is largely a consumer issue. There was an application, and Sakhalin Energy delivered such a consignment to Japan, and before that Shell, together with Gazprom, to Great Britain. I'm not ready to talk about future applications yet. But I think the future of carbon neutral LNG largely depends on government regulation in this area.
- A question about traditional fuel. This year has been very difficult for independent filling stations due to the strong rise in fuel prices. Shell is the largest independent player here. How interesting is this market to you, given the difficult situation with marginality?
- Shell's filling business is quite large, in recent years we have increased the number of stations to about 420 across the country. And they exist, as you rightly noted, in a situation of very difficult marginality, when the profitability of this business is negative due to the disparity between wholesale and retail prices.
There is another problem for fuel retail - the high bank acquiring commission, which reaches 1.5%. This does not compare with the rates in Europe 0.3–0.4%. Of course, we would like to see the dynamics in this matter. The filling business no

longer exists in its pure form, it is a range of services - shops, cafes. Therefore, we would like to see rates applied here, comparable, for example, to the restaurant business.

- Can we say that in this situation you will reduce the network of filling stations or revise plans for its development?

- No, this is out of the question. On the contrary, thanks to the development of a business like Shell Café, the last quarter was very successful. We hope to develop this area, but also look forward to working with the Russian government to improve the efficiency of the filling station market.

We will not change our plans for the development of the filling station network, we continue to increase the number of stations and regions in which we are present. But I repeat: we are now working with the government to improve the profitability of this area.

Yulia Khazagaeva

https://www.equinor.com/en/news/20220131-revised-start-up-date-hammerfest-lng.html

Revised start-up date for Hammerfest LNG

January 31, 2022 08:35 CET

The Hammerfest LNG plant at Melkøya. (Photo: Øivind Haug / Equinor ASA)

Due to continuing consequences from Covid-19 and operational restrictions the time of start-up of the plant is pushed from 31 March 2022 to 17 May 2022.

The previous estimate for the start-up date was given with uncertainty particularly related to the development of the Covid-19 pandemic.

“We work systematically to deliver on the plan we established, but challenges related to Covid-19 restrictions require that we need more time to prepare the plant for safe and stable start-up and operations,” says Grete B. Haaland, senior vice president for Equinor's onshore plants.

A big project

Extensive work has been carried out after the fire at the plant in September 2020. More than 22,000 components have been checked, 180 kilometres of electrical cables have been replaced and daily around 1,000 people have been working to get the plant back into operation.

Repairs of advanced equipment and compressors have been carried out in addition to executing a planned turnaround and ordinary maintenance. To limit Covid-19 infections, comprehensive measures and strict distancing rules have had to be maintained in all areas of the plant.

“The latest wave of infections, combined with restrictions and narrow working areas, impacts the progress. At times, half of staff have been in quarantine and isolation,” says Thor Johan Haave, plant manager at Hammerfest LNG.

“The project work is nearing completion and we`re doing what we can to finish the project. We are pleased with the good cooperation we have with Hammerfest municipality, employee representatives, safety delegates and suppliers. Now it is all about completing the job together," Haave says.

https://clubofmozambique.com/news/just-in-totalenergies-wants-to-resume-gas-project-in-mozambique-this-year-pouyanne-after-meeting-with-nyusi-in-maputo-208704/

Just in: TotalEnergies wants to resume gas project in Mozambique this year – Pouyanné after meeting with Nyusi in Maputo

5:43 CAT | 31 Jan 2022

TotalEnergies plans to resume this year the natural gas project in Cabo Delgado, northern Mozambique, which was suspended in March 2021 after an armed attack, said the company's chief executive Patrick Pouyanné today.

"My goal is that [the project] restarts in 2022, but I am not alone. We are ready", he said at the Presidency of the Republic building in Maputo, after a meeting with the Mozambican head of state, Filipe Nyusi.

The construction of the gas liquefaction plant, extracted from the seabed (about 40 kilometres offshore) is the largest currently financed private investment in Africa and was suspended in March 2021.

An armed attack on the town of Palma, which was home to subcontractors and many of the project's workers, led to the use of "force majeure" (a contractual term for "force majeure", in which neither party can be held responsible) to stop all the work in progress.

"I am optimistic", said Pouyanné, about the resumption of works, although without commitments.

The CEO of TotalEnergies said that the next time he returns to Mozambique, he wants to be able to go "to Palma, Mocímboa da Praia and Mueda"

"When I see that life is back to normal, with State services and the population, then the project can start over", he said.

Patrick Pouyanné said that "a lot of progress has already been made and I want to congratulate the Mozambican authorities who together with Rwanda and SADC [Southern African Development Community] managed to get a lot done".

A joint military force has been fighting insurgent groups in the region.

Pouyanné referred to two crucial points, Mocímboa da Praia and Palma, pointing to them as safe places now.

"But there is still some progress to be made in order to have sustained security. We want to see the population and villages return to their normal lives", he highlighted.

MoU for training 2,500 young people from Cabo Delgado

Pouyanné today signed an agreement with the Mozambican authorities for training actions for 2,500 young people from Cabo Delgado, with a view to creating job opportunities arising from the ongoing investments.

A theme that, he mentioned, is linked to security issues.

"The normalization of social life is part of security, it is not just a matter for the armed forces," he said.

The Mozambican President said that the oil company "did not leave because it wanted to".

Likewise, the population "left because it was attacked, but it will return", as normalcy is resumed, Nyusi said, recalling a request made to him during a visit to Palma:for people to be able to travel peacefully in the province.

Satisfied with the military advance on the insurgency, the Head of State hopes to see this tranquillity reign throughout the province soon.

"It's not like we're singing victories, but we are working and enjoying the work that the young [military] are doing", the President underlined.

Regarding Pouyanné's presence in Maputo, Nyusi commented that "this visit was important to assess what is happening" and promised joint work.

"One of the things we are going to do quickly, together, is to try to bring tranquility to life" in Cabo Delgado, the President told reporters at the end of the meeting with the leader of TotalEnergies.

Cabo Delgado province is rich in natural gas, but has been terrorised since 2017 by armed rebels, with some attacks claimed by the Islamic State extremist group.

The conflict has already caused more than 3,100 deaths, according to the ACLED conflict registration project, and more than 817,000 displaced people, according to the Mozambican authorities.

Since July, an offensive by government troops with the support of Rwanda, which was later joined by the Southern African Development Community (SADC), has increased security, recovering several areas where there was a presence of rebels, namely the town of Mocímboa da Praia, which had been seized in August 2020.

Source: Lusa

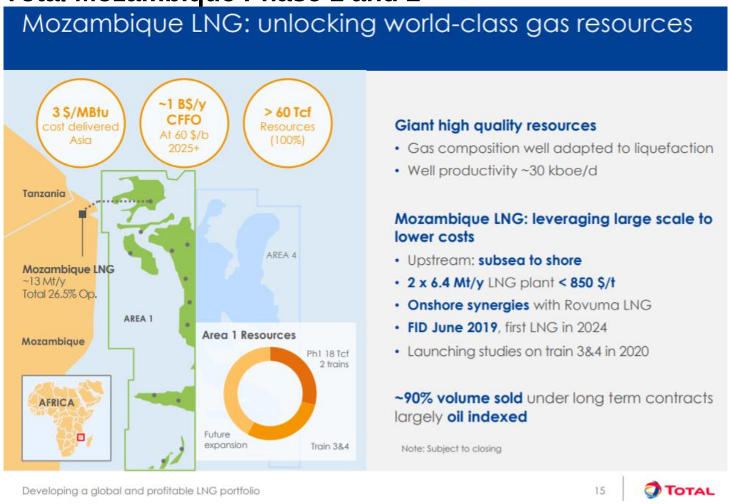
Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?

Posted Wednesday April 28, 2021. 9:00 MT

The next six months will determine the size and length of the new LNG supply gap that is hitting harder and faster than anyone expected six months ago. Optimists will say the Mozambique government will bring sustainable security and safety to the northern Cabo Delgado province and provide the confidence to Total to quickly get back to LNG development such that its LNG in-service delay is a matter of months and not years. We hope so for Mozambique's domestic situation, but will it be that easy for Total's board to quickly look thru what just happened? Total suspended LNG development for 3 months, restarted development on March 25, but then 3 days of violence led it to suspend development again on March 28, and announce force majeure on Monday April 26. Even if the optimists are right, Mozambique LNG is counted on for LNG supply and the major LNG supply project that are in LNG supply forecasts are now all delayed – Total Phase 1 of 1.7 bcf/d and its follow on Phase 2 of 1.3 bcf/d, and Exxon's Rozuma Phase 1 of 2.0 bcf/d. It is important to remember this 5.0 bcf/d of major LNG supply is being counted in LNG supply forecasts and starting in 2024. At a minimum, we think the more likely scenario is a delay of at least 2 years in this 5.0 bcf/d from the pre-Covid timelines. And this creates a much bigger and sooner LNG supply gap starting ~2025 and stronger outlook for LNG prices. Thermal coal in Asia will play a role in keeping a lid on LNG prices. But there will be the opportunity for LNG suppliers to at least review the potential for brownfield LNG projects to fill the growing supply gap. The thought of increasing capex was a non-starter six months ago, but there is a much stronger outlook for global oil and gas prices. Oil and gas companies are pivoting from cutting capex to small increases in 2021 capex and expecting for higher capex in 2022. We believe this sets the stage for looking at potential FID of brownfield LNG projects before the end of 2021 to be included in 2022 capex budgets. Mozambique is causing an LNG supply gap that someone will try to fill. And if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? Cdn natural gas producers hope so as this would mean more Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub.

Total declares force majeure on Mozambique LNG, Yesterday, Total announced [LINK] "*Considering the evolution of the security situation in the north of the Cabo Delgado province in Mozambique, Total confirms the withdrawal of all Mozambique LNG project personnel from the Afungi site. This situation leads Total, as operator of Mozambique LNG project, to declare force majeure. Total expresses its solidarity with the government and people of Mozambique and wishes that the actions carried out by the government of Mozambique and its regional and international partners will enable the restoration of security and stability in Cabo Delgado province in a sustained manner".* Total is working Phase 1 is ~1.7 bcf/d (Train 1 + 2, 6.45 mtpa/train) and was originally expected to being LNG deliveries in 2024. There was no specific timeline for Phase 2 of 1.3 bcf/d (Train 3 + 4, 5.0 mtpa/train), but was expected to follow Phase 1 in short order to keep capital costs under control with a continuous construction process with a potential onstream shortly after 2026.

Total Mozambique Phase 1 and 2



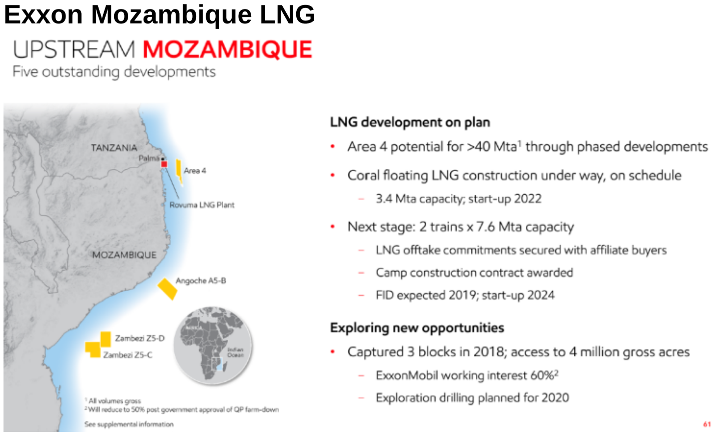
Source: Total Investor Day September 24, 2019

Total's Mozambique force majeure is no surprise, especially the need to the restoration of security and stability "in a sustained manner". Yesterday, Total announced [LINK] "*Considering the evolution of the security".* No one should be surprised by the force majeure or the sustained manner caveat. SAF Group posts a weekly Energy Tidbits research memo [LINK], wherein we have, in multiple weekly memos, that Total had shut down development in December for 3 months due to the violent 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. Local violence/attacks shut development down in Dec, the situation gets settled enough for Total to restart in March, only to be shut down 3 days thereafter. No one should be surprised especially with Total's need to see security and stability "in a sustained manner".

Does anyone really think Total will risk another quick 2-3 month restart or even in 2021? The Mozambique government will be working hard to convince Total to restart soon. We just find it hard to believe Total board will risk a replay of March 24-27 in 2021. Unfortunately, Mozambique has had internal conflict for years. It reached a milestone to the positive in August 2019. Our SAF Group August 11, 2019 Energy Tidbits memo [LINK] highlighted the signing of a peace pact between Mozambique President Nyusi and leader of the Renamo opposition Momade. This was the official end to a 2013 thru 2016 conflict following a failure to hold up the prior peace pact. At that time, FT reported [LINK] "Mr Nyusi has said that "*the government and Renamo will come together and hunt" rebels who fail to disarm. The government has struggled to stem the separate insurgency in the north, which has killed or displaced hundreds near the gas-rich areas during the past two years. While the roots of the conflict remain murky, it is linked to a local Islamist group and appears to be drawing on disaffection over sharing gas investment benefits, say analysts*." This is just a reminder this is not a new issue. LNG is a game changer to Mozambique's economic future. It is, but also has been, a government priority to have the security and safety for Total and Exxon to move on their LNG developments. Its hard to believe the Mozambique government will be able to quickly convince Total and Exxon boards that they can be comfortable there is a sustained security/safety situation and they can send their people back in to develop the LNG. Total's board would allow any resumption of development before year end 2021. The last thing Total wants is a replay of March 24-27. The first question is how long will it take before the Total board is convinced its safe to restart. Could you imagine them doing a replay of what just happened? Wait three months, restart development and have to stop again right away? We have to believe that could lead the Total board to believe it is unfixable for years. We just don't think they are to prepared to risk that decision in 3 months. Its why we have to think there isn't a restart approval until at least in 2022 at the earliest ie. why we think the likely scenario is a delay of 2-3 years, and not a matter of months.

Mozambique's security issues pushes back 5.0 bcf/d of new LNG supply at least a couple years. The global LNG issue is that 5 bcf/d of new Mozambique LNG supply (apart from the Eni Coral FLNG of 0.45 bcf/d) won't start up in 2024 and continuing thru the 2020s. And we believe all LNG forecasts included this 5.0 bcf/d to be in service in the 2020s as Mozambique had been considered the best positioned LNG supply to access Asia after Australia and Papua New Guinea. (i) Eni Coral Sul (Rovuma Basin) FLNG of 0.45 bcf/d planned in service in 2022. [LINK] This is an offshore floating LNG vessel that is still expected to be in service in 2022. (ii) Total Phase 1 to add 1.7 bcf/d with an in service originally planned for 2024. We expect the in service data to be pushed back to at least 2026 assuming Total gives a development restart approval in Dec 2021. In theory, this would only be a 1 year loss of time. However, Total has let services go, the project will be idle for 9 months, it isn't clear if the need to get people out quickly let them do a complete put the project on hold, and how many people will be on site maintaining the status of the development during the force majeure. Also what new procedures and safety will be put in place for a restart. These all mean there will be added time needed to get the project back to where it was when force majeure was declared ie. why we think a 12 month time delay will be more like an 18 month project delay. (iii) Exxon's Rozuma Phase 1 LNG will add 2.0 bcf/d and, pre-Covid, was expected to be in service in 2025. We believe the delays related to security and safety at Total are also going to impact Exxon. We find it highly unlikely the Exxon board would take a different security and safety decision than Total. 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 in 2024. 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 the expectation was that FID would now be in 2022 (3 years later than original timeline0 and that would push first LNG likely to 2027. (iv) 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 2 years, so will Phase 2 so more likely 2028/2029.. (v) Total Phase 1 + 2 and Exxon Rozuma Phase 1 total 5.0 bcf/d and would have been (and still are) in all LNG supply forecasts for the 2020s. (vi) We aren't certain if the LNG supply forecasts include Exxon Rozuma Phase 2 ,which would be an additional 2.0 bcf/d on top of the 5.0 bcf/d noted above. Exxon Rozuma has always been expected to be at least 2 Phases. This has been the plan since the Anadarko days given the 85 tcf size of the resource on Exxon's Area 4. There was no firm in service data for Phase 2, but it was expected they would also closely follow Phase 1 to maintain services. We expect that original timeline would have been 2026/2027 and that would not be pushed back to 2029/2030. (vii) It doesn't matter if its only 5 bcf/ of Mozambique that is delayed 2 to 3 years, it will cause a bigger LNG supply gap and sooner. The issue for LNG markets is this is taking projects that are in development effectively out of the queue for some period.

Exxon Mozambique LNG



Source: Exxon Investor Day March 6, 2019

Won't LNG and natural gas get hit by Biden's push for carbon free electricity? Yes, in the US. For the last 9 months, we have warned on Biden's climate change plan that were his election platform and now form his administration's energy transition map. We posted our July 28, 2020 blog "*Biden To Put US On "Irreversible Path to Achieve Net-Zero Emissions, Economy-Wide" Is a Major Negative To US Natural Gas in 2020s* "[LINK] on Biden's platform "*The Biden Plan to Build a Modern, Sustainable Infrastructure and an Equitable Clean Energy Future*" [LINK]. Biden's new American Jobs Plan

[LINK] lines up with his campaign platform including to put the US "*on the path to achieving 100 percent carbon-free electricity by 2035*.". Our July 28, 2020 blog noted that it would require replacing ~60% of US electricity generation with more renewable and it could eliminate ~40% (33.5 bcf/d) of 2019 US natural gas consumption. If Biden is 25% successful by 2030, it would replace ~6.3 bcf/d of natural gas demand. It would be a negative to US natural gas and force more US natural gas to export markets. The wildcard when does US natural gas start to decline if producers are faced with the reality of natural gas being phased out for electricity. The other hope is that when Biden says "carbon-free", its not what ends up in the details of any formal policy statement ie. carbon electricity will be allowed with Biden's push for CCS.

Will Cdn natural gas be similarly hit by if Trudeau move to "emissions free" and not "net zero emissions" electricity? Yes and No. Our SAF Group April 25, 2021 Energy Tidbits memo [LINK] was titled ""*Bad News For Natural Gas, Trudeau's Electricity Goal is Now 100% "Emissions Free" And Not "Net Zero Emissions*". On Thursday, PM Trudeau spoke at Biden's global climate summit [LINK] and looks like he slipped in a new view on electricity than was in last Monday's budget and his Dec climate plan. Trudeau said "*In Canada, we've worked hard to get to over 80% emissions-free electricity, and we're not going to stop until we get to 100%."* Speeches, especially ones made on a global stage are checked carefully so this had to be deliberate. Trudeau said "*emissions free*" and not net zero emissions electricity. It seems like this language is carefully written to exclude any fossil fuels as they are not emissions free even if they are linked to CCS. Recall in Liberals big Dec 2020 climate announcement [LINK], Liberals said ""*Work with provinces, utilities and other partners to ensure that Canada's electricity generation achieves net-zero emissions before 2050*." There is no way Trudeau changed the language unless he meant to do so. And this is a major change as it would seem to indicate his plan to eliminate all fossil fuels used for electricity. If so this would be a negative to Cdn natural gas that would be stuck within Western Canada and/or continuing to push into the US when Biden is trying to switch to carbon free electricity. We recognize that there is still some ambiguity in what will be the details of policy and the Liberals aren't changing to no carbon sourced electricity at all. Let's hope so. But let's also be careful that politicians don't change language without a reason or at least with a view to setting up for some future hit. Plus Trudeau had a big warning in that same speech saying "*we will make it law to respect our new 2030 target and achieve net-zero emissions by 2050*". They plan to make it the law that Canada has to be on track for the Liberals 2030 emissions targets. This means that the future messaging will be that the Liberals have no choice but to take harder future emissions actions as it is the law. They will be just obeying the law as they will be obligated to obey the law. Everyone knows the messaging will be we have to do more get to Net Zero, that in itself will inevitably mean it will be the law if he actually does move to eliminate any carbon based electricity. So yes it's a negative, that is unless more Cdn natural gas can be exported via LNG to Asia. We believe this would be a plus to be priced against global LNG instead of Henry Hub.

Biden's global climate summit reminded there is too much risk to skip over natural gas as the transition fuel. Apart from the US and Canada, we haven't seen a sea shift to eliminating natural gas for power generation, especially from energy import dependent countries. There is a strong belief that hydrogen and battery storage will one day be able to scale up at a competitive cost to lead to the acceleration away from fossil fuels. But that time isn't yet here, at least not for energy import dependent countries. One of the key themes from last week's leader's speeches at the Biden global climate summit – to get to Net Zero, the world is assuming there wilt be technological advances/discoveries that aren't here today and that have the potential to immediately ramp up in scale. IEA Executive Director Faith Birol was blunt in his message [LINK] saying "*Right now, the data does not match the rhetoric – and the gap is getting wider*." And "*IEA analysis shows that about half the reductions to get to net zero emissions in 2050 will need to come from technologies that are not yet ready for market. This calls for massive leaps in innovation. Innovation across batteries, hydrogen, synthetic fuels, carbon capture and many other technologies.* US Special Envoy for Climate John Kerry said a similar point that half of the emissions reductions will have to come from technologies that we don't yet have at scale. UK PM Johnson [LINK] didn't say it specifically, but points to this same issue saying "*To do these things we've got to be constantly original and optimistic about new technology and new solutions whether that's crops that are super-resistant to drought or more accurate weather forecasts like those we hope to see from the UK's new Met Office 1.2bn supercomputer that we're investing in*." It may well be that the US and other self sufficient energy countries are comfortable going on the basis of assuming technology developments will occur on a timely basis. But, its clear that countries like China, India, South Korea and others are not prepared to do so. And not prepared to have the confidence to rid themselves of coal power generation. This is why there hasn't been any material change in the LNG demand outlook

<u>We expect the IEA's blunt message that the gap is getting wider will be reinforced on May 18</u>. We have had a consistent view on the energy transition for the past few years. We believe it is going to happen, but it will take longer, be a bumpy road and cost more than expected. This is why we believe the demise of oil and natural gas won't be as easy and fast as hoped for by the climate change side. The IEA's blunt warning on the gap widening should not be a surprise as they warned on this in June 2020. Birol's climate speech also highlighted that the IEA will release on May 18 its roadmap for how the global energy sector can reach net zero by 2050. Our SAF Group June 11, 2020 blog "*Will The Demise Of Oil Take Longer, Just Like Coal? IEA and Shell Highlight Delays/Gaps To A Smooth Clean Energy Transition*" [LINK] feature the IEA's June 2020 warning that the critical energy technologies needed to reduce emissions are nowhere near where they need to be. In that blog, we said "there was an excellent illustration of the many significant areas, or major pieces of the puzzle, involved in an energy transition by the IEA last week. The IEA also noted the progress of each of the major pieces and the overall conclusion is that the vast majority of the pieces are behind or well behind where they should be to meet a smooth timely energy transition. It is important to note that these are just what the IEA calls the "*critical energy technologies*" and does not get into the wide range of other considerations needed to support the energy transition. The IEA divides these "critical energy technologies "into major groupings and then ranked the progress of each of these pieces in its report "*Tracking Clean Energy Progress"* [LINK] by on track, more efforts needed, or not on track". Our blog included the below IEA June 2020 chart.

IEA's Progress Ranking For "Critical Energy Technologies" For Clean Energy Transition

🔴 Power	🟡 Renewable Power	🔴 Geothermal
	🟢 Solar PV	🔴 Ocean Power
	🟡 Onshore Wind	🔴 Nuclear Power
	🟡 Offshore Wind	🟡 Natural Gas-Fired Power
	🟡 Hydropower	🔴 Coal-Fired Power
	🟢 Bioenergy Power Generation	🔴 CCUS in Power
	🔴 Concentrating Solar Power	
🔴 Fuel Supply	🔴 Methane Emissions from O&G	🔴 Flaring Emissions
🟡 Industry	🟡 Chemicals	🟡 Pulp and Paper
	🟡 Iron and Steel	🟡 Aluminum
	🟡 Cement	🔴 CCUS in Industry and Transformation
🟡 Transport	🟢 Electric Vehicles	🔴 Transport Biofuels
	🟢 Rail	🟡 Aviation
	🔴 Fuel Consumption of Cars and Vans	🟡 International Shipping
	🟡 Trucks and Busses	
🔴 Buildings	🔴 Building Envelopes	🟢 Lighting
	🔴 Heating	🟡 Appliances and Equipment
	🟡 Heat Pumps	🟢 Data Centres and Data Transmission Networks
	🟡 Cooling	
🟡 Energy Integration	🟡 Energy Storage	🟡 Demand Response
	🟡 Hydrogen	🟡 Direct Air Capture
	🟡 Smart Grids	

Source: IEA

🟢 On Track 🟡 More Efforts Needed 🔴 Not on Track

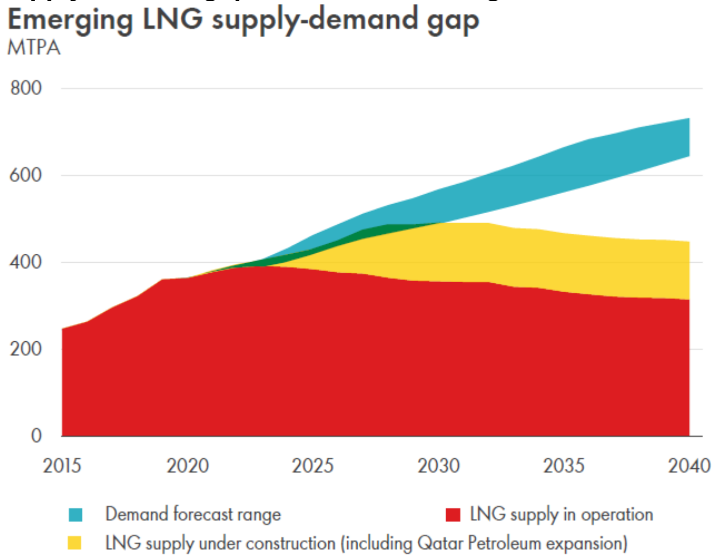
Source: IEA Tracking Clean Energy Progress, June 2020

<u>We are referencing Shell's long term outlook for LNG</u> We recognize there are many different forecasts for LNG, but are referencing Shell' LNG Outlook 2021 from Feb 25, 2021 for a few reasons. (i) Shell's view on LNG is the key view for when and what decision will be made for LNG Canada Phase 2. (ii) Shell is one of the global leaders in LNG supply and trading. (iii) Shell provides on the record LNG outlooks every year so there is the ability to compare and make sure the outlook fits the story. It does. (iv) Shell, like other supermajors, has had to make big capex cuts post pandemic and that certainly wouldn't put any bias to the need for more capex.

<u>Shell's March 2021 long term outlook for LNG demand was basically unchanged vs 2020 and leads to a LNG supply gap in mid 2020s</u> Shell does not provide the detailed numbers in their Feb 25, 2021 LNG forecast. We would assume they

would have reflected some delay, perhaps 1 year, at Mozambique but would be surprised if they put a 2-3 year delay in for the 5 bcf/d from Total Phase 1 +2 and Exxon Rozuma Phase 1. Compared to their LNG Outlook 2020, it looks like there was no change for their estimate of global natural gas demand growth to 2040, which looked relatively unchanged at approx. 5,000 bcm/yr or 484 bcf/d. Similarly, long term LNG demand looked unchanged to 2040 of ~700 mm tonnes (92 bcf/d) vs 360 mm tonnes (47 bcf/d) in 2020. In the 2021 outlook, Shell highlighted that the pandemic delayed project construction timelines and that the "*lasting impact expected on LNG supply not demand".* And that Shell sees a LNG "*supply-demand gap estimated to emerge in the middle of the current decade as demand rebounds*". Comparing to 2020, it looks like the supply-demand gap is sooner.

Supply-demand gap estimated to emerge in the middle of the current decade



Source: Shell LNG Outlook 2021, Feb 25, 2021

Mozambique delays are redefining the LNG markets for the 2020s: Delaying 5 bcf/d of Mozambique new LNG supply 2-3 years means a much bigger supply gap starting in 2025.. Even if the optimists are right, there are now delays to all major Mozambique LNG supply from LNG supply forecasts. We don't have the detail, but we believe all LNG forecasts, including Shell's LNG Outlook 2021, would have included Total's Phase 1 and Phase 2 and Exxon Rozuma Phase 1. As noted earlier, we believe that the likely impact of the Mozambique security concerns is that these forecasts would likely have to push back 1.7 bcf/d from Total Phase 1 to at least 2026, 2.0 bcf/d Exxon Rozuma Phase 1 to at least 2027, and 1.3 bcf/d Total Phase 2 to at least 2028/2029 with the real risk these get pushed back even further. 5.0 bcf/d is equal to 38 mtpa. These delays would mean there is an increasing LNG supply gap in 2025 and increasingly significantly thereafter. And even if a new greenfield LNG project is FID's right away, it wouldn't be able to step in to replace Total Phase 1 prior startup timing for 2024 or likely the market at all until at least 2027. Its why the decision on filling the gap will fall on brownfield LNG projects.

And does this bigger, nearer supply gap force LNG players to look at what brownfield LNG projects they could advance? A greenfield LNG project would likely take at least until 2027 to be in operations. Its why we believe the Mozambique delays will effectively force major LNG players to look to see if there are brownfield LNG projects they should look to advance. Prior to the just passed winter, no one would think Shell or other major LNG players would be considering any new LNG FIDs in 2021. All the big companies are in capital reduction mode and debt reduction mode. But Brent oil is now solidly over $60 and LNG prices hit record levels in Jan 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. We would not expect any major LNG players to move to FID right away. But we see them watching to see if 2021 plays out to still support this increasing LNG supply gap. 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 5 months. The question facing Shell and others, 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 than expected a few months ago. We expect these decisions to be looked at before the end of 2021. LNG prices will be stronger, but we expect the limiting cap in Asia will be that thermal coal will be used to mitigate some LNG price pressure.

Back to Shell, does increasing LNG supply gap provide the opportunity to at least consider a LNG Canada Phase 2 FID over the next 9 months? 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 6 months ago. No one has been or is talking about this Mozambique impact and how it will at least force major LNG players to look at if they should FID new brownfield LNG projects to take advantage of this increasing supply gap. 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. No one is talking about the need for these new brownfield LNG projects, but, unless Total gets back developing Mozambique and keeps the delay to a matter of months, 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

A LNG Canada Phase 2 would be a big plus to Cdn natural gas. A LNG Canada Phase 2 FID would be a big plus for Cdn natural gas. It would allow another ~1.8 bcf/d of Cdn natural gas to be priced against Asian LNG prices and not against 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 may be in Africa, but, unless sustained peace and security is attained, it is 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 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 to 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.

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India to double down on oil, gas exploration: Hardeep Singh Puri

Synopsis
India currently relies on imports to meet 85 per cent of its oil needs and 50 per cent of the natural gas requirement. This is because domestic production is inadequate.

Seven rounds of an auction of acreage under the new Open Acreage Licensing Policy (OALP) in the last five years have doubled the area under exploration for oil and gas to 207,692 (0.2 million) sq km.

India will more than double the area that is under exploration and production of oil and gas to 0.5 million square kilometer by 2025 and to 1 million sq km by 2030 with a view to raising domestic output and cut reliance on imported fuel, Petroleum Minister Hardeep Singh Puri said on Friday. The world's third-largest energy consumer will continue to rely on hydrocarbons to meet its growing energy needs in the foreseeable future, he said at the World Energy Policy Summit 2022.

India currently relies on imports to meet 85 per cent of its oil needs and 50 per cent of the natural gas requirement. This is because domestic production is inadequate.

"With an objective of increased domestic production of oil and gas, we have declared an ambitious target to increase the area under exploration and production to 0.5 million sq km by 2025 and achieve 1 mn sq km by 2030," he said.

Seven rounds of an auction of acreage under the new Open Acreage Licensing Policy (OALP) in the last five years have doubled the area under exploration for oil and gas to 207,692 (0.2 million) sq km.

Puri said the Indian economy expanding to USD 5 trillion by 2025 and to USD 10 trillion by 2030 from the current USD 3 trillion will lead to burgeoning energy demand.

"By 2050, as per projections by BP Energy outlook, India's shares in global energy demand is expected to double from the current 6 per cent to 12 per cent, accounting for over a quarter of net global primary energy demand growth," he said.

"India's (economic) growth has the potential to catalyse global economic resurgence. Any achievement by India will have a multiplier impact on the achievement of the sustainable development goals."

Referring to India's target to reach net-zero carbon emissions by 2027, he said the government has already taken several measures to overhaul the hydrocarbon policy framework to ensure energy security for the country while pursuing the green path to progress.

"However, we acknowledge that oil and gas will continue to meet the baseload of our energy demand for the foreseeable future," he said.

Over 80 per cent of India's energy needs are met by three fuels -- coal, oil and solid biomass. Coal accounts for 44 per ce of all energy consumption while the oil makes up for a quarter. The share of natural gas is 6 per cent.

"We are rapidly deploying natural gas in our energy mix by increasing its share from the current 6 per cent to 15 per cent by 2030," Puri said.

Also, ethanol extracted from sugarcane and surplus foodgrains is being doped in petrol to cut reliance on imported oil.

"Ethanol blending through a series of progressive reforms has reached a national average of over 8 per cent blending currently and is all set to increase to 20 per cent by 2025," he said adding bio-waste is also being turned into gas for use as fuel.

This complements the thrust towards clean mobility using electricity-powered vehicles (EVs) and the development of battery technology.

"Our focus is also on the faster deployment of green hydrogen and developing India as a hub of green hydrogen. Our oil and gas companies are developing projects for use of hydrogen as fuel and infusion of hydrogen in gas pipelines as well," he said.

The reforms across the value chain of the oil and gas sector in India, he said, are not a matter of short-term expediency but an outcome of a well-considered long-term strategy to tap immense resources. "I am certain India will emerge as a global leader for a sustainable transition to cleaner and greener energy."

India's LNG Imports to Jump Near 5 Times by 2030: Petronet
2021-10-22 09:02:33.799 GMT

By Debjit Chakraborty and Rajesh Kumar Singh
(Bloomberg) -- India's import of natural gas is expected to hit 120 million tons/year by 2030 as the nation targets an energy mix goal, Akshay Kumar Singh, CEO of Petronet LNG, said at the India Energy Forum by CERAWeek.
* NOTE: India aims to boost use to natural gas to 15% of primary energy mix from about 6% now
* India's current annual LNG import is about 26 million tons
* The nation's gas production by 2030 is expected to reach 40 million-50 million tons
* Current LNG import capacity is 42 million tons/year, while about 19 million tons/year capacity is under construction
* Another 9 million-10 million tons of capacity addition are at design stage
* Petronet is expanding its biggest terminal at Dahej to 22.5 million tons a year from 17.5 million currently
* India's biggest LNG importer is also looking at building a new terminal on the east coast
* The current volatility in global gas prices is causing demand destruction
* Price volatility pushing consumers to long term LNG contracts
* Consumers are looking at a mix of oil, gas indexation for long LNG deals, which can work good for buyers

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Sabka Saath, Sabka Vikas, Sabka Vishwas and now Sabka Prayas are vital for the achievement of our goals: PM Modi on 75th Independence Day

August 15, 2021

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TELL A FRIEND

My dear countrymen!

Best wishes to all of you and those who love India and democracy from all over the world on the occasion of the Amrit Mahotsav of freedom, the 75th Independence Day.

Today, on the pious festival of the Amrit Mahotsav of freedom, the country is bowing to all its freedom fighters and brave heroes who continue to sacrifice themselves day and night in the defense of the nation. The country is remembering every personality, including the revered Bapu, who made freedom a mass movement, Netaji Subhash Chandra Bose, who sacrificed everything for the freedom, or great revolutionaries like Bhagat Singh, Chandrasekhar Azad, Bismil and Ashfaqulla Khan; Rani of Jhansi Lakshmibai, Queen Chennamma of Kittur or Rani Gaidinliu or the valour of MatanginiHazra in Assam; the country's first Prime Minister Pandit Nehru ji, Sardar Vallabhbhai Patel, who integrated the country into a united nation, and Baba Saheb Ambedkar, who determined and paved the way for the future direction of India. The country is indebted to all these great personalities.

India is a land endowed with gems. I salute countless people from every corner of India whose names don't even figure in history, but who have built this nation and have also taken it forward in every period.

India has fought for the motherland, culture and freedom for centuries. This country never gave up the pain of slavery and the longing for freedom for centuries. In the midst of victories and defeats, the aspiration of freedom engraved in the mind was never diminished. Today is the time to bow down to the leaders of all these struggles, the warriors of centuries of struggle and they also deserve our reverence.

Our doctors, nurses, paramedical staff, sanitation staff, scientists engaged in developing vaccines, millions of countrymen engaged with the spirit of service during this Corona global pandemic also deserve praise from all of us.

Today there are floods in some areas of the country, landslides have also occurred. Some sad news also keeps coming. The hardships of the people have increased in many areas. At such a time, both the Central and State Governments are with them in complete readiness. Today, the young athletes and our players who have brought laurels to India are also present in this event.

Some are present and sitting here. Today, I appeal to all the countrymen, those who are present here and all those who are present in this ceremony from every corner of India, that in the honour of our players, for a few moments let's salute them with resounding clapping applause and show respect for their huge accomplishments.

Let us show our respect to the sports of India, youth of India and honour the young Indians who bring laurels to the nation. Crores of countrymen are showing respect to the youth of India, especially the athletes who brought honour to India with a thunderous applause. I can be proud that they have not only won our hearts today, but also inspired the youth of India and future generations with their huge achievements.

My dear countrymen,

While we celebrate our freedom today, we cannot forget the pain of partition that still pierces through the heart of all Indians. This has been one of the biggest tragedies of the last century. After attaining freedom, these people were forgotten too soon. Just yesterday India has taken an emotional decision in their memory. We will henceforth commemorate August 14 as "Partition Horrors Remembrance Day" in the memory of all the victims of partition. Those who were subjected to inhuman circumstances, suffered torturous treatment, they could not even receive a dignified cremation. They must all remain alive and never get erased from our memories. The decision of celebrating "Partition Horrors Remembrance Day" on the 75th Independence Day is a befitting tribute from every Indian to them.

My dear countrymen,

For the country moving on the path of progress and humanity in the entire world, the Corona period came as a major challenge. Indians fought this fight with great grit and patience. We had many challenges. Countrymen performed extraordinarily in every field. It is due to the power of our entrepreneurs and scientists that the country is not dependent on anyone or any country for vaccines. Imagine for a ment, if we did not have the vaccine. How long did it take to get polio vaccine?

It was extremely difficult to get vaccines during such a major crisis, with pandemic plaguing the entire world. India might or might not have received it and even if it had received the vaccine there was no certainty of getting that in time. But today we can proudly say that the world's largest vaccination programme is being run in our country. More than 54 crore people have received the vaccine dose. Online systems like Cowin and digital certificates are attracting the world today.

The way India has kept the stoves burning in the poor households by providing free food grains to 80 crore countrymen continuously for months during the pandemic is not only astonishing to the world but also a matter of discussion. It is true that fewer people have been infected in India as compared to other countries; it is also true that in comparison to the population of other countries of the world, we managed to save more citizens in India but it is not something to be proud of! We cannot rest on these laurels. To say that there was no challenge, will become a restrictive thought in the path of our own development.

Our systems are insufficient compared to that of the rich countries of the world, we do not have what the rich countries have. Moreover, we also have a greater population compared to the other countries of the world. And our lifestyle is also different. Despite all our efforts, we could not save many people. So many children have been orphaned. This unbearable pain is going to remain forever.

My dear countrymen,

There comes a time in the development journey of every country when the country redefines itself afresh and pushes forward with new resolutions. Today that time has arrived in the development journey of India. We should not limit the occasion of 75 years of Indian independence to just one ceremony. We must lay the groundwork for new resolutions and move forward with new resolutions. Starting from here, the entire journey of the next 25 years, when we celebrate the centenary of Indian independence, marks the Amrit period of creation of a new India. The fulfillment of our resolutions in this Amrit period will take us to the hundredth anniversary of Indian independence with pride.

The goal of 'Amrit Kaal' is to ascend to new heights of prosperity for India and the citizens of India. The goal of 'Amrit Kaal' is to create an India where the level of facilities is not dividing the village and the city. The goal of 'Amrit Kaal' is to build an India where the government does not interfere unnecessarily in the lives of citizens. The goal of 'Amrit Kaal' is to build an India where there is world's every modern infrastructure.

We should not be lesser than anyone. This is the resolve of the crores of countrymen. But the resolve remains incomplete until it is not accompanied by the extreme hard work and courage. Therefore, we have to realize all our resolutions with hard work and courage, and these dreams and resolutions are also for effective contribution to a safe and prosperous world beyond our borders.

Amrit Kaal is of 25 years. But we don't have to wait for long to achieve our goals. We have to start now. We don't have a moment to lose. This is the right time. Our country also has to change and we as citizens have to change ourselves too. We also have to adapt ourselves to the changing era. We have started with the spirit of 'SabkaSaath, Sabka Vikas, Sabka Vishwas'. Today I am requesting from the ramparts of the Red Fort that 'SabkaSaath, Sabka Vikas, Sabka Vishwas' and now 'SabkaPrayas' are very important for the achievement of our goals. Crores of people are getting the benefits of many schemes started in the last seven years. Every poor of the country knows the importance of Ujjwala to Ayushman Bharat. Today the speed of government schemes has increased and they are achieving the desired goals.

We have progressed much faster than before. But it does not end here. We have to achieve saturation. All the villages should have roads, all the households should have bank accounts, all the beneficiaries should have Ayushman Bharat cards and all the eligible persons should get the benefit of Ujjwala Yojana and should have gas connections. We have to connect every entitled person with the government's insurance, pension and housing schemes. We have to move ahead with a mindset of cent percent achievement. Till now, no thought was given for our street vendors, who sell their goods on tracks, footpaths and carts. All these colleagues are now being linked to the banking system through the SVANidhi scheme.

Just as we have made electricity accessible to 100% households, and have made authentic efforts to construct toilets in 100% households, similarly, we now have to move ahead with the goal of achieving saturation of schemes, and, for this, we do not have to keep a distant deadline. We have to make our resolutions come true within a few years.

Today, our country is working with speed on the Har Ghar Jal Mission. I am happy that in just two years of the Jal Jeevan Mission, more than four and a half crore families have started getting water from taps. They have started getting water from pipes. Receiving the blessings from crores of mothers and sisters, is our true capital. The biggest advantage of this 100 percent accomplishment rate is that no one remains deprived of the benefits of the government scheme. When the government operates with a target to reach the person in the last line, only then there is no discrimination and there is no scope for corruption.

My dear countrymen,

Providing nutrition to every poor person of the country is also a priority of this government. Malnutrition and lack of essential nutrients in poor women and poor children poses major obstacles in their development. In view of this, it has been decided that the government will fortify the rice given to the poor under its various schemes. Will give rice fortified with nutrition to the poor. Be it the rice available at the ration shop, the rice provided to the children in the mid-day meal, or the rice available through every scheme, it shall be fortified by the year 2024.

My dear countrymen,

Today, the campaign to provide better health facilities to every poor in the country is also going on at a fast pace. For this, important reforms have also been made in medical education. Equal attention has been paid to preventive healthcare. Simultaneously, there has been a substantial increase in the number of medical seats in the country. Under the Ayushman Bharat scheme, quality health services are being provided to every village in the country. Affordable medicines are being made available to the poor and middle class through Jan Aushadhi Yojana. So far, more than 75 thousand Health and Wellness centers have been set up. At the block level too, modern health infrastructure is being exclusively set up on a network of good hospitals and modern labs. Very soon thousands of hospitals in the country will also have their own oxygen plants.

My dear countrymen,

To take India to new heights in the 21st century, the optimal utilisation of India's potential is the need of the hour.

This is extremely important. For this, we need to provide hand holding to the backward categories and sectors. Alongwith the concern of fulfilling the basic needs, reservation is being ensured for the Dalits, Backward classes, Adivasis and the poor people from general category. More recently, in the field of medical education, reservation has also been ensured for the OBC category in the All India quota. By formulating a law in Parliament, the right to make their own list of OBC has been given to the states.

My dear countrymen,

Just as we are making sure that no person or no class should be left behind in the development journey of society, similarly no part of the country, no corner of the country should be left behind. Development should be all-round, development should be all-pervasive, development should be all-inclusive. We are now accelerating the efforts that have been made in the last seven years to bring forward such backward areas of the country. Be it the eastern India, the North-east, Jammu-Kashmir, Ladakh including the entire Himalayan region, be it our coastal belt or the tribal region, these regions are going to turn into a major foundation for India's development in future, India's development journey.

Today a new history of connectivity is being written in the North-East. This is a connectivity of both the hearts and the infrastructure. Very soon the work of connecting all the state capitals of the North-East with rail service is going to be completed. Under the Act-East Policy, today North-East, Bangladesh, Myanmar and South-East Asia are also being connected. Due to the efforts made in the past years, now the enthusiasm for the creation of Shreshtha Bharat and long lasting peace in the North-East has increased manifold.

There is a huge potential in the fields of tourism, adventure sports, organic farming, herbal medicine, and oil pump in the North East. We have to fully harness this potential and make it a part of the development journey of the country. And we have to complete this work within a few decades of the 'Amrit kaal'. Giving a fair opportunity to the capabilities of all is the true spirit of democracy. Be it Jammu or Kashmir, the balance of development is now visible on the ground.

The Delimitation Commission has been constituted in Jammu and Kashmir and preparations are also going on for the assembly elections. Ladakh has also progressed towards its limitless possibilities of development. On one hand Ladakh is witnessing the creation of modern infrastructure, while on the other hand Sindhu Central University is also making Ladakh a center of higher education.

In this decade of the 21st century, India will further accelerate its efforts towards the Blue Economy. Along with aquaculture, we have to take full advantage of the new possibilities that are emerging in the cultivation of seaweed. The Deep Ocean Mission is the result of our ambition to explore the unlimited possibilities of the ocean. The mineral wealth which is hidden in the sea, the thermal energy which is in the sea water, can give new heights to the development of the country.

We have also awakened the aspirations of the districts of the country believed to have been left behind. Priority is being given to schemes related to education, health, nutrition, roads and employment in more than 110 aspirational districts in the country. Many of these districts are in our tribal areas. We have created a spirit of healthy competition for development among these districts. There is a strong competition going on in that direction so that these aspirational districts are at par with other districts of India.

My dear countrymen,

Capitalism and socialism are discussed a lot in the world of economics, but India also emphasizes cooperativism. Cooperativism is also compatible with our traditions and values. Cooperativism, in which the collective power of the masses becomes the driving force of the economy, is important for the country's grassroots level economy. Co-operatives are not just a system with a network of laws and rules, but co-operative is a spirit, culture, and a mindset of collective growth. We have taken steps to empower them by forming a separate ministry. We have taken this step to empower the cooperative sector in the states.

My dear countrymen,

We will have to put all our efforts to build a new economy in the villages in this decade. Today we can see our villages changing rapidly. In the last few years, our government has provided roads and electricity to the villages. Now these villages have been strengthened with optical fibernetwork data and the Internet. Digital entrepreneurs are emerging in the villages also. The more than eight crore sisters in the villages, who are associated with Self-Help Groups, design top-end products. Now the government will also prepare an e-commerce platform for their products so that get a big market in our country and abroad. Today, when the country is moving forward with the mantra of Vocal for Local, this digital platform will connect the products of women self-help groups with people across the length and breadth of the country as well as internationally. Their horizon shall thus get enhanced.

During Corona, the country has witnessed the power of technology, as well as the commitment and capabilities of our scientists. The scientists of our country are working very diligently and strategically across the expanse of the country. Now the time has come for us to integrate the capabilities of scientists and their suggestions in our agriculture sector as well. Now we cannot wait any longer. We have to leverage this strength. This will go a long way in increasing the production of fruits, vegetables and grains along with giving food security to the country. Thus we shall catapult ourselves strongly into the world orbit.

Amongst these concerted efforts, we need to take cognizance of a major challenge posed in our agriculture sector. Challenge of shrinking of land of villagers which is due to immense rise in population, and smaller land holdings due to the divisions happening in the family. Farming land has shrunk alarmingly. More than 80 percent of the farmers of the country are those who have less than two hectares of land. If we see, 80 out of 100 farmers have less than two hectares of land i.e. the farmers of our country are practically in the small farmer category. Unfortunately, this segment remained eliminated from the benefits in our yesteryear’s policies. They did not get their due importance. Now, keeping in mind these small farmers in the country, agricultural reforms are being undertaken, and critical decisions are being taken to benefit them.

Whether the improvement in the crop insurance scheme or important decision of increasing the MSP by one and a half times; a system to provide loans from banks at cheaper rates through Kisan Credit Card; taking the schemes related to solar power to the farm, formulate a Farmer Producer Organization. All these efforts will increase the power of the small farmer. In the coming times, a campaign will also be launched to create a warehouse facility up to the block level.

Keeping in mind the small expenses of every small farmer, PM KisanSamman Nidhi Yojana is being run. So far, more than 1.5 lakh crores have been deposited directly into the bank accounts of more than ten crore farmer families. The small farmer is now our resolve and mantra for us. The small farmer becomes the country's pride.... the small farmer becomes the nation's pride. This is our dream. In the coming years, we will have to increase the collective power of the small farmers of the country. New facilities have to be provided.

Today, Kisan Rail is plying on more than 70 rail routes of the country. Kisan Rail can help small farmers with this modern facility to reach far flung areas on a low cost of produce and transportation. Several products like Kamalam, Shahi litchi, BhutJolokiachillis, black rice or turmeric are being exported to different countries of the world. Today, the country feels delighted when the aroma of these products produced in the soil of India reaches different countries of the world. Today the world is developing a taste for the vegetables and food grains grown in the fields of India.

My dear countrymen,

Swamitva Yojana is an example of one of the initiatives taken to boost the capabilities of the villages today. We all know what happens to the price of land in villages. They do not get any loan from the banks on the basis of land, despite being the owners of the land because no work had been done in terms of documents of rural land for several years. People do not have this system. The Swamitva scheme attempted to change this situation. Today every village, every house, every land is being mapped through drones. The data and property papers of village lands are being uploaded online. With this, not only the disputes related to land in the villages are being ended, but a system has also been created for the people of the village to get loans easily from the banks. The lands of village poor should be the foundation for development rather than disputes. And the country is moving in the same direction today.

My dear countrymen,

When Swami Vivekananda used to talk about the future of India, when he used to see the magnificence of Mother Bharati in front of his eyes, he used to say – Try to look into the past as far as possible. Drink the water of the ever new spring flowing back there, and after that, look ahead. Go ahead and make India brighter, greater & better than ever. In this 75th year of independence, it is our duty to move forward believing in the immense potential of the country. We have to work together for new generation infrastructure; we have to work together for world class manufacturing; we have to work together for cutting edge innovations; we have to work together for new age technology.

My dear countrymen,

The foundation of progress in the modern world lies on modern infrastructure. It also fulfills the needs and aspirations of the middle class. Weak infrastructure derails the pace of development and the urban middle class also suffers.

We have to work together for next generation infrastructure, for world class manufacturing, for cutting edge innovation and for New Age technology.

My dear countrymen,

Realizing this need, the country has demonstrated extraordinary speed and scale in every field from the seas, land to the skies. Rapid progress is underway whether it is development of new waterways or connecting new places with seaplanes. Indian Railways is also rapidly adapting to its modern avatar. The country has resolved to celebrate the Amrit Mahotsav of independence. You would know that we have decided to celebrate this Amrit Mahotsav of independence for 75 weeks. It started from 12th March and will continue till 15th August, 2023. We have to move forward with new enthusiasm and, therefore, the country has made a very important decision.

During these 75 weeks of the Amrit Mahotsav of Independence, 75 Vande Bharat trains will connect every corner of the country. The pace at which new airports are being built in the country and the UDAN scheme connecting remote areas is unprecedented. We can see how better air connectivity gives new flights to people's dreams.

My dear countrymen,

Along with modern infrastructure, there is a great need for adopting a holistic and integrated approach in infrastructure construction. In the near future, we are going to launch the National Master Plan of Prime Minister 'Gati Shakti' which will be a huge scheme and fulfill the dreams of crores of countrymen. This scheme of more than 100 lakh crores rupees will result in new employment opportunities for lakhs of youth.

Gati Shakti will be a National Infrastructure Master Plan for our country which will lay the foundation of holistic Infrastructure and will lead to an integrated and holistic pathway to our economy. Right now, there is no coordination between our means of transport. Gati Shakti will break the silos, and will remove all these obstacles. This will reduce the travel time for the common man and the productivity of our industry will also increase. Gati Shakti will also go a long way in making our local manufacturers globally competitive and this will also develop new possibilities for the creation of future economic zones. In this decade, the power of speed will form the basis of India's transformation.

My dear countrymen,

India will have to increase both its manufacturing and exports while moving ahead on the path of development.

My dear countrymen,

Treading ahead on the path of development, India will have to augment both its manufacturing and exports. You have witnessed, just a few days ago, India launched its first indigenous Aircraft Carrier INS Vikrant for trial in the sea. Today India is making its own indigenous fighter aircraft, its own submarine. Gaganyaan is also slated to hoist India's flag in space. This itself is evidential of our immense capabilities in indigenous manufacturing.

The country has also announced Production Linked Incentive to consolidate our Make in India campaign in the wake of the new economic conditions that have emerged due to Corona. The electronic manufacturing sector stands as an example of the change that is enforced through this scheme. Seven years ago we used to import mobile phones worth about eight billion dollars. However, now the import has reduced considerably, and today we are also exporting mobile phones worth three billion dollars.

Today, when our manufacturing sector is gaining momentum, our focus should be that whatever we make in India should be of highest quality standards so that we sustain in the global competition. Rather, if possible we should aim at going a step ahead and take proactive steps to prepare ourselves for the global market. We have to target that. I want to say emphatically to all the manufacturers of the country, that you should never forget that the product you sell overseas is not just a product made by your company, it is the identity of our nation, India's prestige and the faith of all the citizens of our country.

My dear countrymen

That is why I tell all our manufacturers that each of your products is a brand ambassador of India. When someone will buy and use your product, the customer should say with pride- now "This is Made in India". That's the mindset we need. You all should now aspire to win over the global market. The government is fully with you in realising this dream.

My dear countrymen,

Today, several new start-ups are being formed in different sectors of the country and even in smaller tier 2, tier 3 cities of the country. They also have a big role to play in getting entry of their Indian products into the inter-state market.The government stands with all its might, with these start-ups. Whether it is giving them financial help, cash discounts, rules simplification for them, the government is fully with them. We have seen that thousands of new start-ups have emerged in this difficult period of Corona. They are moving forward with great success. Yesteryear's start-ups are becoming today's unicorns. Their market value is reaching thousands of crores of rupees.

These are new types of wealth creators in our country today. They are standing on their feet with the power of their unique ideas, moving ahead and walking with the dream of conquering the world. They are new kinds of wealth creators. They are moving by the force of their unique ideas and a dream to win over the world. In this decade, we need to relentlessly work towards making India's Startups and the Startup Ecosystem the best in the whole world.

My countrymen,

Political will is needed to bring about major changes and reforms. Today the world is witnessing that there is no dearth of political will in India. Good and smart governance is required to implement the reforms. Today the world is also a witness to how India is writing a new chapter of governance here. In this decade of 'Amrit Kaal', we will give priority to Next Generation reforms... We will ensure that all the facilities like service delivery should reach citizens up to the last mile; it should reach the last person seamlessly, without hesitation or any kind of difficulty. For the overall development of the country, unnecessary interference by the government and the government processes in the lives of the people has to be ended.

Earlier, the government itself was on the driving seat. This might have been the demand of that time. But now the time has changed. In the last seven years, efforts have also intensified in the country to liberate the people of the country from the web of unnecessary laws and procedures. Till now hundreds of old laws of the country have been abolished. Even during this period of Corona pandemic, the government has abolished more than 15,000 compliances. Now you see, you might have experienced a lot of hassles and paperwork for a small government work. That has been the situation so far. We have ended 15,000 compliances.

Just imagine.....I want to give you an example. A law has been in place in India for over 200 years, 200 years i.e. even before 1857. As per this law, the citizens of the country did not have the right to create maps. Now imagine, it was in place since 1857. If you want to create a map, then seek permission from the government, if you want to print the map in a book, then seek permission from the government; there is a provision for arrest if the map is lost. Nowadays every phone has a Map app. Satellites have so much power! Then how will we take the country forward with a burden of such laws? It is very important to get rid of this burden of compliances. We have abolished several regulations in various sectors like mapping, space, information technology and BPO.

My dear countrymen,

Freedom from the clutches of unnecessary laws is very important for both Ease of Living as well as Ease of Doing Business. Our country's industries and businesses are experiencing this change today.

Today dozens of labor laws have been subsumed into just 4 codes. Tax related arrangements have also been made easy and become faceless now. We will have to work together so that such reforms are not limited to the government only, but percolate down to gram panchayats, municipal corporations and municipalities. I am calling upon, making an earnest appeal to all the central and state departments to launch a campaign to review the existing rules and procedures. We have to get rid of every rule, every process which has become a hindrance and a burden for the people of the country. I know what has accumulated in 70-75 years will not go away in a day or in a year. But if we start working with a purpose, we will definitely be able to do this.

My dear countrymen,

Keeping this in mind, the government has also started Mission Karmayogi and Capacity Building Commission to increase people-centric approach in bureaucracy and improve their efficiency.

My dear countrymen,

Our education, education system, education tradition has a great role in preparing the youth, who are possessed with skill and ability, and who have the spirit to do something for the country. Today the country also has a new National Education Policy to meet the needs of the 21st century. Now our children will neither stop due to lack of skills nor will they be bound by language barriers. Unfortunately, there is a massive divide in our country regarding language. We have tied a huge talent of the country to the cage of language. One can find promising people in their mother tongue. If people from the vernacular medium come forward, their self-confidence will grow. Justice will be done to the potential of the poor children when they will become professionals by studying in their mother tongue.

I believe that language is the instrument of the fight against poverty in the new National Education Policy. This new National Education Policy is also going to be a great tool to fight against poverty in a way. The basis of winning the war against poverty is also the education, prestige and importance of the vernacular language. The country has seen this in the playground... and we are experiencing that language has not become a barrier and as a result we have seen that the youth are playing and blossoming. Now the same thing will happen in other fields of life as well.

Another special feature of the new National Education Policy is that sports has been made a part of mainstream education instead of extra-curricular. Sports is also one of the most effective means of pursuing life. It is very important to have sports in life for perfection in life. There was a time when sports was not considered mainstream. Parents also considered indulging in sports as wastage of life. Now, there is a new awareness about fitness and sports. We have seen and felt this in the olympics. This change is a big turning point for us. That is why, we need to speed up and expand the campaign that is going on in the country for infusing talent, technology and professionalism in sports.

It is a matter of pride for the country that our daughters are performing in an unprecedented manner in the fields of education, sports, Boards results or olympics. Today daughters are raring to occupy their place. We have to ensure that women have equal partnership in every career and workspace. We have to ensure that they feel safe from roads to the workplace and everywhere. There should be a feeling of respect for them and in this, the government, administration, police and justice system will have to perform their duty cent percent. We have to make this resolution , the resolution of the 75 years of Independence.

Today I am sharing good news with the countrymen. I used to get lakhs of messages from our daughters that they want to study in the Sainik Schools. The Doors of the schools should be opened for them. We dis aq pilot project in the Sainik School of Mizoram two-two and half years ago by giving admission to our daughters. Now the Government has decided that all the Sainik Schools will be open for the girls. Daughter too will study in all the Sainik Schools of the Country.

Environmental security is getting the same importance in the world as national security.Today India is a vibrant voice of environmental security, whether it is biodiversity or land neutrality, climate change or waste recycling, organic farming or biogas, energy conservation or clean energy transition. India’s efforts in environment are giving results today. Increase in forest cover, number of national parks, increase in number of tigers and Asiatic lions are a matter of happiness for the countrymen.

Among all these successes one truth needs to be understood. India is not yet energy independent. India today spends more than 12 lakh crore rupees annually for importing energy. For India's progress and to build a self-reliant India, India's energy independence is the need of the hour! Therefore today, India has to make a resolution to make India energy independent before the completion of 100 years of independence and our roadmap is very clear for the same. It should be a gas based economy. There should be a network of CNG & PNG across the country. There should be a target of 20 percent ethanol blending. India is moving ahead with a set goal. India has also made a move towards Electric Mobility and the work on 100% electrification of Railways is also progressing at a fast pace. Indian Railways has set a target of becoming Net Zero Carbon Emitter by 2030. Besides these efforts, the country is also emphasizing on Mission Circular Economy. Our Vehicle Scrap Policy is a great example of the same. Today, India is the only country in the group of G-20 countries, which is moving fast towards achieving its climate goals.

India has set a target of 450 GW of renewable energy by the end of this decade - 450 GW by 2030. Of this, the target of 100 GW has been achieved by India ahead of schedule. These efforts are also instilling confidence in the world. The formation of the International Solar Alliance on the Global State is a great example of the same.

Of every effort being made by India today, the thing that is going to help India with a quantum leap in terms of climate is the field of Green Hydrogen. To achieve the goal of Green Hydrogen, I am announcing the National Hydrogen Mission today with this tricolour as a witness. We have to make India a Global Hub for Green Hydrogen Production and Export in the 'Amrit Kaal'. This will not only help India to make a new progress in the field of energy self-reliance but will also become a new inspiration for Clean Energy Transition all over the world. New opportunities from Green Growth to Green Job are opening up today for our start-ups & youth.

My dear countrymen,

Today, the 21st century India has the ability to create and achieve big goals as well. Today India is also solving those subject areas, which were hanging fires for decades and centuries. Be it a historic decision to abrogate Article 370, introduction of GST, a system that frees the country from the web of taxes, a decision regarding 'One Rank-One Pension' for our military friends, a peaceful solution to the Ram Janmabhoomi issue, we have seen it come true in a few years

India's willpower is realizing all the resolutions whether it is the Bru-Reang agreement in Tripura after decades, constitutional status to the OBC commission or the BDC and DDC elections in Jammu and Kashmir for the first time since independence.

Even in this period of Corona, record foreign investment is coming to India. India's foreign exchange reserves are also at an all-time high. India has also given the message of the might of New India to the enemies of the country by carrying out surgical and air strikes. It shows that India is changing. India can change. India can take the toughest decisions and it does not hesitate and stop in taking even the toughest decisions.

My dear countrymen,

The nature of global relations has changed after the Second World War. There is a possibility of a new world order post Corona. The world has seen and appreciated India's efforts during Corona. Today the world is looking at India from a new perspective. There are two important aspects of this perception -- one is terrorism and the other is expansionism. India is fighting both these challenges and is also responding strongly in a restrained manner. Our defense preparedness has to be equally strong if India has to fulfil its obligations properly.

We are making constant efforts to provide new opportunities to our hardworking entrepreneurs and to encourage Indian companies to make the country self-reliant in the field of defence. I assure the country that we will leave no stone unturned to strengthen the hands of our forces engaged in the defense of the country.

My dear countrymen,

Today is also the birth anniversary of the great thinker of the country, Sri Aurobindo. His 150th birth anniversary will be celebrated in 2022. Sri Aurobindo was a visionary of India's bright future. He used to say that we have to be as powerful as we were never before. We have to change our habits. We have to re-awaken ourselves. These words of Sri Aurobindo remind us of our duties. We also have to think about what we are giving to the country as a citizen and as a society. We have always given importance to rights. They were needed during that period, but now we have to make duties paramount. Everybody will have to contribute in fulfilling the resolutions of the country. Every citizen will have to own this up.

Our country has initiated a campaign of water conservation, so it is our duty to include saving water in our habits. If the country is emphasizing on digital transactions, then it is also our duty to do minimum cash transactions. The country has started the campaign of Local for Vocal, so it is our duty to buy as many local products as possible. To strengthen our vision of a plastic-free India of the country, it is our duty to completely stop the use of single use plastic. It is our duty not to throw dirt in our rivers, keep our sea shores clean. We also have to take the Swachh Bharat Mission to another new level.

Today, when the country is celebrating the Amrit Mahotsav on the occasion of 75 years of independence, it is the duty of all of us to join this event, participate in it enthusiastically, and keep kindling our resolutions again and again. Keeping freedom struggle in mind, whatever little you do… whatever… will be pure like a drop of nectar, and this Amrit Kumbh made by the pure efforts of many Indians will inspire the entire nation for years to come.

My dear countrymen,

I am not a fortune teller, I believe in action. I have faith in the youth of my country, I trust the sisters of the country, the daughters of the country, the farmers of the country, and the professionals of the country. This ‘CAN DO’ generation can achieve every goal imaginable.

I believe that in 2047, on the occasion of celebrating 100 years of independence… whoever will be the Prime Minister… whoever will be the Prime Minister after 25 years from today, when he will be unfurling the flag… I say this with confidence today that he or she shall be chronicling those accomplishments in his speech about which the country has taken a vow today... This is my firm belief of victory.

Today whatever I am speaking of in the form of a resolution, whoever hoists the flag after 25 years, shall be speaking of the same in the form of accomplishments. The country would be singing its glory in the form of these accomplishments. Youth of the country of today, shall also see at that time how the country has achieved this glory.

In the 21st century, no obstacle can stop us from fulfilling the dreams and aspirations of India. Our strength is our vitality, our strength is our solidarity, our vitality is the spirit of nation first - always first. This is the time for shared dreams, this is the time for shared resolve, this is the time for shared efforts... and this is the time to move towards victory.

And so I say once again-

This is the time,

This is the time.. the right time!

India's precious time!

This is the time, the right time! India's precious time!

The power of countless arms,

The power of countless arms,

There is patriotism everywhere!

There is the power of innumerable arms, there is patriotism everywhere…

Come, rise and unfurl the Tricolour!

Come, rise and unfurl the Tricolour!

Turn the fate of India,

Turn the fate of India,

This is the time, the right time! India's precious time!

There is nothing..

There is nothing you cannot do,

There is nothing you cannot achieve,

You Rise...

You Rise and Begin,

Recognize your abilities,

Recognize your abilities,

Understand all your duties,

Understand all your duties!

This is the time, the right time! India's precious time!

When the country completes 100 years of independence, the goals of the countrymen must be turned into reality; that is my desire. With my best wishes, I once again congratulate all the countrymen on the 75th Independence Day! Say aloud with your fists up -

Jai Hind,

Jai Hind,

Jai Hind!

VandeMatram,

VandeMatram,

VandeMatram!

Long live Mother India,

Long live Mother India,

Long live Mother India!

Thanks a lot!

https://www.reuters.com/business/energy/exxon-eyes-more-long-term-gas-supply-deals-with-india-2022-02-04/
February 4, 20223:29 AM MSTLast Updated an hour ago

Exxon eyes more long-term gas supply deals with India

By Nidhi Verma

NEW DELHI, Feb 4 (Reuters) - Global energy major ExxonMobil (XOM.N) is looking at signing more long-term gas sales deals with India as rising spot prices have added to the appeal of longer duration contracts.

"We're certainly happy to work with our friends and partners in India to sign the kind of long-term contracts that allow a large part of the energy demand to be de risked from a price perspective," said Monte Dobson, CEO, ExxonMobil Gas (India).

At present Exxon has a long-term contract to annually supply 1.5 million tonnes of liquefied natural gas to Indian firm Petronet LNG (PLNG.NS).

India is the world's fourth biggest importer of gas. And the fuel's demand in India is set to grow as Prime Minster Narendra Modi has set a target to raise the share of gas in the country's energy mix to 15% by 2030 from the current 6.2%.

Companies are investing billions of dollars to build pipelines and gas import terminals to meet the rising demand in India.

Dobson said India needs to build a "stable base" of long-term contracts to de-risk its self from price volatility.

He said people who had secured more of their supply in the long term were "feeling a lot better". "So that to me is the real solution," Dobson said at World Energy Policy Summit.

The comments from Exxon come as many countries are battling soaring energy costs with Britain announcing a 54% jump in energy bills from April. read more

LNG prices have lurched from record lows of below $2 per mmBtu to all-time highs of $56 in the last 20 months, as markets struggle to keep pace with global economies recovering from COVID-19. Asian spot prices are at around $26.50 currently.

https://www.bloomberg.com/news/articles/2022-02-04/japan-to-ensure-its-own-natural-gas-supply-before-aiding-europe?sref=Ns4A7pph

Japan to Ensure Its Own Gas Supply Before Aiding Europe

- Trade minister says Japan has to check its own energy demands
- The nation's LNG stockpiles are beginning to run low

By Shoko Oda
February 3, 2022, 9:31 PM MST*Updated onFebruary 4, 2022, 12:02 AM MST*

@shoko_oda

Japan will make sure its own energy demands are met before aiding Europe with shipments of liquefied natural gas in the event conflict erupts over Ukraine, according to the nation's trade minister.

The comments come amid fears that European allies may run short of energy should Russia invade Ukraine, an attack Russian President Vladimir Putin has repeatedly denied he's planning. The Biden administration and European governments have reached out to Japan, as well as other nations in Asia, about diverting gas shipments to Europe, Bloomberg reported on Thursday.

"Japan is an energy importer, and we are resource-scarce," said Trade Minister Koichi Hagiuda at a press conference Friday in Tokyo. "There's forecast for a very cold winter this year, so we do need to make sure our own energy demands are met. Japan will consider what it can do to contribute to the international community then."

The geopolitical tensions surrounding Ukraine is another thorn in the side for Europe, which has been grappling with a fuel supply crunch for months. LNG spot prices have surged to a record high in recent months as utilities in Asia and Europe compete for the same supply of super-chilled fuel from exporters ranging from the U.S. to Nigeria.

Japan's Hagiuda declined to comment directly on the diplomatic talks between Japan and the U.S. Hagiuda said that the best option was to avoid a situation where diverting fuel is necessary, and he hoped countries will put effort into a diplomatic resolution.

Unlike with oil, Japan does not have any national stockpile of natural gas, Chief Cabinet Secretary Hirokazu Matsuno said on Friday, adding that the government is aware that the nation's electricity and gas companies have about two to three weeks worth of inventories.

Still, Japanese importers have already been selling spare supplies to Europe over the last several months due to more attractive prices in the Atlantic. Companies stocked up on LNG supplies ahead of the winter to avoid a potential shortage, and were able to offload some deliveries.

Related story: Asian LNG Imports Slump as Cargoes Sent to Fuel-Starved Europe

However, with inventories now running thin, Japan's power generators and gas distributors will likely need to keep most of their contracted LNG over the next several months to prepare for the summer. That will limit the amount of fuel they can send to Europe.

Diverting supply to Europe is "not an impossible task, but it will impact Japan's power generation -- and there's not much leeway at the moment," said Kazunori Kasai, chief executive officer of Jera Global Markets Pte., the unit in charge of procuring fuel for Japan's top power producer Jera Co.
(Updates with comment from Jera in last paragraph)

https://www.gazprom.com/press/news/2022/february/article547478/

Gazprom and CNPC sign agreement to supply Russian pipeline gas to China via Far Eastern route

RELEASE

February 4, 2022, 12:05

ChinaDocuments signedIR releases

- This is the second long-term sales and purchase agreement for gas to be signed by the companies.
- The Far Eastern route is going to increase the amount of Russian gas supplies to China by 10 billion cubic meters.

Gazprom and China National Petroleum Corporation (CNPC) signed a long-term Sales and Purchase Agreement for natural gas to be supplied via the Far Eastern route.

The signing of this document is an important step towards further strengthening the mutually beneficial cooperation between Russia and China in the gas sector. As soon as the project reaches its full capacity, the amount of Russian pipeline gas supplies to China is going to grow by 10 billion cubic meters, totaling 48 billion cubic meters per year (including deliveries via the Power of Siberia gas trunkline).

“This is already a second contract to be signed for Russian gas supplies to China, and it is indicative of the exceptionally strong mutual trust and partnership between our countries and companies. Our Chinese partners from CNPC have already seen for themselves that Gazprom is a reliable gas supplier,” said Alexey Miller.

Background

Gazprom's main partner in China is CNPC, a state-owned oil and gas company.

In 2014, Gazprom and CNPC signed the 30-year Sales and Purchase Agreement for 38 billion cubic meters of gas per year to be supplied via the eastern route (Power of Siberia gas pipeline). The ceremony marking the start of the first-ever pipeline supplies of Russian gas to China took place on December 2, 2019.

In January 2022, the feasibility study was completed for the Soyuz Vostok gas trunkline construction project. The trunkline will become an extension of Russia's Power of Siberia 2 gas pipeline in Mongolian territory and will make it possible to supply up to 50 billion cubic meters of gas per year to China.

Information Directorate, Gazprom

https://thepeninsulaqatar.com/article/01/02/2022/qatar-stands-ready-to-support-partners-in-times-of-need-energy-minister

Qatar stands ready to support partners in times of need: Energy Minister

Published: 01 Feb 2022 - 05:11 pm | Last Updated: 01 Feb 2022 - 05:14 pm

The Peninsula

DOHA: The Minister of State for Energy Affairs H E Saad Sherida Al-Kaabi met today with H E Kadri Simson the European Union's Commissioner for Energy for a discussion of bilateral cooperation in the energy field.

During the meeting, which was held virtually, the Minister reaffirmed that "Qatar stands ready to support our partners around the world in times of need." As the largest LNG producer in the world, the Minister expressed "pride to have never missed a single cargo delivery for the last 25 years to all our partners around the world."

He also stressed that "keeping our contractual word is sacrosanct in Qatar, and therefore we have the full trust of our global commercial partners and buyers."

The Minister expressed hope that tensions in Europe can be resolved diplomatically, so that all suppliers can work together to ensure energy security for the short- and long-terms. "The volume of gas needed by the EU cannot be replaced by anyone unilaterally, without disturbing supplies to other regions around the world. Europe's energy security requires a collective effort from many parties," he remarked.

Discussions between the Minister and the EU's Commissioner for Energy also covered various aspects of the global gas industry. Minister Al-Kaabi noted that "the world oil and gas sector has been under-invested for the last few years, and that growing demand for cleaner, safer, and more reliable baseload energy means we all need to increase investment in the gas sector to make sure supply will be available and prices stay reasonable."

Excerpt from https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/02/04/remarks-by-president-biden-on-the-january-jobs-report/

Remarks by President Biden on the January Jobs Report

FEBRUARY 04, 2022•SPEECHES AND REMARKS

State Dining Room

11:50 A.M. EST

Look, I'm a capitalist. But capitalism without competition is not capitalism; it's exploitation. So, I'm going to continue to do everything in my power to work with the Congress to make our capitalist system work better, to provide more competition, and lower prices for American consumers.

And they're still going to do well. But that isn't going to be enough. We still need to ease the burden on working families by making everyday things more affordable and accessible.

Look, average people are getting clobbered by the cost of everything today. Gas prices at the pump are up. We're working to bring them down, but they're up.

Food prices are up. We're working to bring them down as well.

Look, I grew up in a family where if the price for a gallon of gas at the pump went up significantly, it was felt by the family. I get it. I understand. But these things are necessities, but that's not the totality of what the family needs. They still have to pay for childcare. They still have to pay for prescription drugs. They still have to pay for healthcare.

There's more than one way to help a family when it comes to their standard of living. We're going to work to bring down the prices that are way up, but guess what? Guess what? We're going to keep strengthening the supply chains to bring down the costs of every — all of these goods.

But in the meantime, there is a lot we can do to give families a little extra breathing room.

For example, childcare. Families can spend $14,000 a year per child, in some cases in this country — in some cases less than $14,000 a year — for childcare.

Our plan cuts in half most — what most families are paying, helping their budgets; helping — keeping millions of parents, and especially women, allowed to go back to work because they can get childcare.

Or the cost of prescription drugs, like insulin. Insulin costs about $10 to make. But for families who need the insulin, they're paying up to $650 a month on average in some places and as high as $1,000 a month.

Think about all of those Americans out there with Type 1 diabetes who need this insulin to stay alive and stay healthy, or the 200,000 American children with Type 1 diabetes.

Think about being one of the parents without the insurance or the money to pay for that insulin. How do you look your child in the eye who needs that insulin? They have no idea how they're going to figure out how to pay for it.

Think about what it does to them — to their self-esteem, their dignity, their ability to look their child in the eye.

We cap the cost of insulin at $35 on our plan — $35 a month. The companies are still going to make a healthy profit. We could do that tomorrow with the stroke of a pen.

But we have a generation of — so-called, for example, "sandwich generation." That is you have a young child and an elderly parent who need — both need help. And look, we can help them take care of mom and dad and make it work.

There's a program that allows us to — on Medicare — that someone can come and install a handrail in the shower so mom doesn't fall; to make sure they have what they need to live with safety and dignity in their home, pick up the prescriptions, make an occasional meal. We can do all that.

So when a mom and dad puts their head on the pillow at night, they can have peace of mind that their elderly parents are doing well and their children are okay.

We're still going to work on gas prices. We're still going to work on the food prices. But in the meantime, we can deliver that peace of — we can deliver that peace of mind to the American people and give them a little breathing room.

And, by the way, the proposals that I have out there — nobody earning less than $400,000 a year would pay a single additional penny in taxes. Not a single penny. And a lot of companies that I've spoken to are willing to pay a little more in their corporate taxes and their personal taxes to see that happen.

You've heard me say it a hundred times: You got 55 companies of the Fortune 500 companies that paid zero tax in the last couple years, and they made over $400 billion.

Look, we can do this without increasing the deficit. Actually, we've reduced the deficit over $300 billion. And 17 Nobel laureates in economics came to me several months ago to say that this plan would not only not raise inflation, it would ease long-term inflationary pressures.

Look, the bottom line is this: The United States is once again in a position to not only compete with the rest of the world but outcompete the rest of the world once again.

If we can keep coming together and invest in the backbone of America — working class and the middle-class folks — there's no limit to what we can achieve.

So let's keep the rais- — the wages rising, and let's start lowering costs.

Our businesses are the best in the world. Our workers are the best in the world. Give them half a chance and they'll outcompete anyone, anywhere in the world.

We can have a quality of life for working people that they deserve at the same time.

And, by the way, the middle class, when it does well; when the working class does well — everybody does well. Everything is better for the wealthy, the super-wealthy, and the slightly wealthy. Nobody gets hurt.

So let's face these challenges head on. Let's keep building a better America.

I want to thank you. And God bless you, and may God protect our troops. Thank you.

12:05 P.M. EST

Trans Mountain expansion running over budget by billions of dollars and a year behind schedule
2022-02-03 21:33:20.604 GMT

Trans Mountain expansion running over budget by billions of dollars and a year behind schedule

By Postmedia News
Feb. 3 (Postmedia News) -- CALGARY - After facing interruptions caused by volatile weather and the pandemic, the Trans Mountain expansion is expected to run over budget by several billion dollars - and the federally owned pipeline project won't be completed this year as planned.
Work to expand the oil pipeline is now forecast to cost more than $17 billion and likely won't be done until sometime in 2023, sources say.
Ottawa purchased the pipeline almost four years ago from Kinder Morgan Canada for $4.4 billion after it appeared the private owners were set to walk away from the expansion as it faced a series of hurdles to be built by late 2020.
At the time, the project's price tag was pegged at $7.4 billion, but soon moved higher. It climbed to $12.6 billion in early 2020 and is headed up again.
Trans Mountain Pipeline
Liberals need to get premiers around table on Indigenous issues, says AFN chief
"At the end of the day, it all needs to be approved by the government before it's a real number, so who knows how it might tweak around," said one person with knowledge of the increase. "It's more a combination of things over the past two years."
Officials with the federal government and Trans Mountain Corp. declined to comment.
"At this time, we have no update to the cost or overall schedule of the project," said a statement from the Crown corporation responsible for the development.
The long-awaited expansion of the pipeline, which moves oil and refined products from the Edmonton area to a terminal at Burnaby, B.C., is being closely watched by the Canadian oil industry.
Once built, the Trans Mountain Expansion (TMX) project will nearly triple the capacity of the 1,150-kilometre pipeline, shipping 890,000 barrels per day to the Pacific Coast for export.
Former TransCanada Corp. CEO Hal Kvisle said the budget is rising due to construction delays, regulatory obstacles, supply chain issues and difficulties working in tough terrain.
Higher capital costs will likely lead to increased tolls for producers to ship oil through the line, said Kvisle, who is also a board member of ARC Resources and Cenovus Energy.
"There have been many work stoppages and this is a major driver of cost overruns," he said.
"I don't know that the costs will exceed $20 billion, but

it will be heading up towards that. And most people now are thinking it will be done by the end of 2023, or maybe a little bit into 2024."

Tamarack Valley Energy CEO Brian Schmidt said the sector isn't surprised by the timeline or costs, given the inflationary pressures facing major infrastructure developments.

"If it were delayed a bit, it would cause a little bit of pain, but not a lot," Schmidt said.

"Whenever you have a delay, you know the costs are going up, too."

Trans Mountain Corp. last updated the project's price tag in February 2020, bumping it to $12.6 billion, but much has changed since, including routing work being finalized, the pandemic, extreme weather in B.C. and rising inflation.

The existing Trans Mountain pipeline shut down in November for three weeks after heavy rainfall and flooding in British Columbia. Expansion work in the Fraser Valley, Coquihalla and interior regions of B.C. was also affected.

In the fourth quarter of 2020, project-wide construction was voluntarily suspended for about two months after several safety incidents.

On Tuesday, the company issued a news release, noting pipeline construction in the Edmonton area has wrapped up.

Total project construction was more than 45 per cent complete as of last month.

Analyst Phil Skolnick with Eight Capital said petroleum producers are also seeing their costs increase by about 10 per cent, rising to 20 per cent in some areas, and major energy projects face similar issues.

"The labour side of things, that would be a definite key risk," he said.

Industry officials say it's imperative to get the expansion finished. Oil output in Alberta increased by eight per cent in 2021, after falling by five per cent in 2020, ATB Economics said Wednesday.

"Trans Mountain remains key," said Tristan Goodman, president of the Explorers and Producers Association of Canada.

"We recognize the frustration in costs and timelines, but we do live in a different period of time. I think that project is exceptionally well managed and it still remains going in the right direction."

The expansion project has been years in the making. An initial application to expand the pipeline, which was built in 1953, was filed with regulators in 2013 and approved three years later.

After mounting opposition to the project from environmental groups, some First Nations and the B.C. government, Ottawa bought the pipeline.

Construction was delayed for nearly a year after a court decision in August 2018 quashed federal approval for the project, due to inadequate consultation with affected Indigenous communities and improper consideration of oil tanker traffic tied to the expansion.

Work restarted the following year.
Last August, officials with the Crown corporation reiterated they anticipated mechanical completion of the project by the end of this year.
From the project's inception until the end of September, $8.9 billion in capital spending had been incurred and $1 billion in financial carrying costs capitalized, according to Trans Mountain's third-quarter results.
Petroleum producers have faced pipeline bottlenecks for a decade, increasing the price discount facing oil moving out of Western Canada.
Projects such as Keystone XL, Energy East and Northern Gateway were stymied during that period, but the completion of Enbridge's Line 3 Replacement Project last year has eased congestion.
Expanding Trans Mountain will add almost 600,000 barrels per day of pipeline capacity out of Western Canada, while allowing producers to transport oil to the B.C. coast for export to Asia and other markets.
"TMX will continue to be a very strategic and significant development for our industry, in terms of gaining access to new markets," said Ben Brunnen, a vice-president with the Canadian Association of Petroleum Producers.
The West Coast Environmental Law Association noted in a report last year that officials with Trans Mountain said in regulatory filings that every month of delay in the project commencing operations would result in a loss of about $100 million.
"The delays along the route have become so numerous and are so regular they now delay the entire project," report co-author Eugene Kung said in a news release last September.
The Trudeau government has said it will eventually sell the pipeline to the private sector, and several Indigenous groups have expressed interest.
Higher capital costs shouldn't impede a sale as new pipelines are difficult to complete, making assets in the ground extremely valuable, said Chris Bloomer, former CEO of the Canadian Energy Pipeline Association.
"It will attract a lot of interest," Bloomer said. "This is a situation where costs have gone up, but the shippers are still committed."
cvarcoe@postmedia.com

-0- Feb/03/2022 21:33 GMT

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Colombian gas production in 2021 was the highest in the last five years

The hydrocarbon sector continues to consolidate itself as one of the pillars of economic recovery

The average production of gas marketed during the past year increased 4.40% compared to 2020

During 2021, the average gas production was 1,087 mcfd

MinEnergy. Bogotá, February 2, 2022. The commercialized production of gas in Colombia was 1,128.74 million cubic feet per day (mcfd) during December 2021, which represented an increase of 2.49% compared to November of the same year (1,101.27 mcfd). Compared to December 2020 (1,107.84 mcfd), production increased 1.89%.

According to information reported by the National Hydrocarbons Agency (ANH), the increase in gas production during the last month of last year was explained by greater commercialization in the Gibraltar (Toledo-Norte de Santander), Cupiagua (Aguazul-Casanare), Clarinete (La Unión/Sahagún-Córdoba/Sucre), Recetor West (Aguazul-Casanare) and La Belleza (Plato-Magdalena), due to the reestablishment of production and the behavior of gas demand during the month.

Looking at the consolidated figure for 2021, it is evident that the average gas production in Colombia was 1,087 mcfd, the highest figure recorded in at least five years, which reflects the commitment of the national government to the development of this fuel.

Regarding oil production, during December 2021 this was 745,325 average barrels per day (bopd), which meant a slight decrease of 0.33% compared to November when it was 747,772 bopd. Compared to December 2020 (760,016 bopd) the decrease in production was 1.93%.

The drop in oil production in December 2021 occurred mainly in the Rubiales (Puerto Gaitán-Meta), Castilla Norte (Acacias-Meta), Yariguí-Cantagallo (Cantagallo-Bolívar), Indico (Cabuyaro-Meta), Floreña Mirador (Yopal-Casanare), due to the presence of electrical and mechanical failures and public order problems.

The consolidated average oil production of Colombia in 2021 was 736,356 bopd, which meant a decrease of 5.7% compared to 2020 when it was 781,352 bopd.

Finally, in 2021, 460 wells were drilled, 53.84% more than in 2020 when only 299 wells were drilled. The total number of wells under development last year was 425, while the total number of exploratory wells was 35.

Wednesday, February 2, 2022, Cundinamarca, Bogotá D.C., Source: MinenergíaShare

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Russia Boosts Oil Output But Still Can't Meet Its OPEC+ Quota
2022-02-02 05:54:04.364 GMT

By Olga Tanas and Dina Khrennikova
(Bloomberg) -- Russia ramped up its oil output in January yet likely pumped below its OPEC+ quota for a second consecutive month, as the nation's producers struggle with a lack of spare capacity.
The Organization of Petroleum Exporting Countries and its allies, including Russia, will meet Wednesday to decide on production policy for March. Delegates from about half the coalition's members say they expect the group to ratify another 400,000 barrel-a-day supply hike.
However, OPEC+ members may not be able to pump the full amount of crude their individual quotas will allow because of a lack of spare capacity. This is being exacerbated by a tightening oil market as consumption rises, with analysts now seeing the potential for prices to hit $100 a barrel this year, raising inflationary pressure.
Russian oil producers pumped 46.53 million tons of crude and condensate in January, according to preliminary data from the Energy Ministry's CDU-TEK unit. That equates to 11 million barrels a day, based on a 7.33 barrel-per-ton conversion rate, and is 0.7% higher than in December.
Russia Seen Struggling to Keep Pace With OPEC+ Supply Hikes
It's difficult to fully assess Russia's compliance with the OPEC+ deal as the CDU-TEK data doesn't provide a breakdown between crude and condensate, a lighter type of oil that's excluded from the agreement. If the nation's condensate output last month was close to December's level of 950,000 barrels a day, crude-only daily production was around 10.05 million barrels, some 50,000 below its quota for the month.
This would make January the second consecutive month when Russia's crude-only output was below its monthly OPEC+ quota. In December, the country raised its total output by nearly 0.2%, according to updated CDU-TEK statistics. However, crude-only production missed the quota by around 40,000 barrels a day, according to Bloomberg calculations.
Russia is allowed to add 100,000 barrels a day each month, a quarter of total OPEC+ increases, and expects to bring its oil production back to pre-pandemic levels by April or May, according to Deputy Prime Minister Alexander Novak. Output could continue to rise at the same pace after that, meaning the nation has the potential to reach its updated baseline level of 11.5 million barrels a day, Novak said last summer.
Recent Russian oil-industry data signal the nation's producers have nearly run out of spare capacity, which is set to slow the pace of increases in the next few months. In the first half of 2022, Russia may only be able to deliver about half of its scheduled increases in crude production, according to analysts surveyed by Bloomberg. Any future output growth will

depend on additional drilling, capital spending and fiscal incentives.
“Market consensus is that Russia will struggle to reach its OPEC+ crude oil target of 11 million barrels a day given its previous pre-pandemic best was 10.6 million barrels a day,” the International Energy Agency said last month.

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https://www.opec.org/opec_web/en/press_room/6796.htm

25th OPEC and non-OPEC Ministerial Meeting concludes

No 03/2022 Vienna, Austria

02 Feb 2022

Following the conclusion of the 25th OPEC and non-OPEC Ministerial Meeting (ONOMM), held via videoconference on Wednesday, 2 February 2022, and in view of current oil market fundamentals and the consensus on the outlook, the OPEC and participating non-OPEC oil-producing countries in the Declaration of Cooperation (DoC) decided to:

- Reaffirm the decision of the 10th OPEC and non-OPEC Ministerial meeting on 12 April 2020 and further endorsed in subsequent meetings, including the 19th ONOMM on 18 July 2021.
- Reconfirm the production adjustment plan and the monthly production adjustment mechanism approved at the 19th ONOMM and the decision to adjust upward the monthly overall production by 0.4 mb/d for the month of March 2022, as per the attached schedule.
- Reiterate the critical importance of adhering to full conformity and to the compensation mechanism, taking advantage of the extension of the compensation period until the end of June 2022. Compensation plans should be submitted in accordance with the statement of the 15th ONOMM.
- Hold the 26th ONOMM on 2 March 2022.

	March 2022 Required Production
Algeria	992
Angola	1435
Congo	306
Eq.Guinea	120
Gabon	175
Iraq	4370
Kuwait	2639
Nigeria	1718
Saudi Arabia	10331
UAE	2976
Azerbaijan	675
Bahrain	193
Brunei	96
Kazakhstan	1605
Malaysia	559
Mexico	1753
Oman	829
Russia	10331
Sudan	71
South Sudan	122
OPEC 10	25061
Non-OPEC	16233
OPEC+	41294

https://www.wsj.com/articles/saudi-aramco-looks-to-sell-50-billion-stake-in-fresh-share-listing-11643980289?mod=hp_lead_pos6

- WSJ NEWS EXCLUSIVE
- FINANCE

Saudi Aramco Looks to Sell $50 Billion Stake in Fresh Share Listing

Oil giant is discussing plans for what would be the largest share sale ever, with a secondary listing possible in London, Singapore or other venues

PHOTO: AMR NABIL/ASSOCIATED PRESS

By Summer Said Follow *in Dubai and* Julie Steinberg Follow

in London

Updated Feb. 4, 2022 8:34 am ET

Saudi Arabia has restarted plans to list more shares of Aramco, the world's most valuable oil company, according to people familiar with the company's strategy, with an ambition to sell as much as a $50 billion stake, which at current valuations would be 2.5% of the company.

Executives at state-owned Saudi Arabian Oil Co., as Aramco is known, have held discussions internally and with outside advisers about selling additional shares on the Riyadh stock exchange and a secondary listing, possibly in London, Singapore or other venues, the people said.

The listing of shares would be by far the largest in the history of capital markets and could prove difficult to pull off. The company set the previous record for the world's largest initial public offering in 2019 when it raised $29.4 billion on the Tadawul, or the Saudi stock exchange.

The stake-sale effort is still in the planning stage, and could still be delayed or changed, the people said. Riyadh has floated several different plans over the years aimed at raising funds via Aramco, some of which have ultimately faltered or been abandoned.

The 2019 listing was a scaled-back version of the company's original ambitions, which were to sell 5% of the company for as much as $100 billion, including on a major international exchange.

But international investors were wary of governance issues and the price of the shares, which valued the company at $1.7 trillion. The domestic-only IPO ultimately listed 1.5% of the company.

A spokesperson for Aramco declined to comment.

Aramco has long wanted to sell off chunks of the oil giant, part of a strategy crafted by de facto leader Crown Prince Mohammed bin Salman to monetize the country's massive oil assets and use the proceeds to invest in industries outside of oil.

The goal is to complete the share sales by the end of the year or early next year, one of the people said. The plan is being pushed by the crown prince, the person said.

In April 2021, Prince Mohammed said in a televised interview that the kingdom was in talks with unnamed foreign investors about selling stakes in Aramco, with options that included a 1% acquisition by a leading global energy company. Plans under deliberation included selling more shares in Riyadh and that an announcement would come in a year or two.

Discussions over a fresh share sale are happening as oil prices hit their highest level since 2014, powered by rising demand, curtailed supplies and concerns among traders over instability in Eastern Europe and the Middle East. Brent crude, the global benchmark, traded above $92 a barrel Friday and has risen 57% over the past year.

Saudi Aramco's Riyadh-listed shares have edged higher along with the price of oil and other oil-major stocks in recent months, and currently sport a market capitalization of nearly $2 trillion. The company's shares are lightly traded compared with those in Western markets and aren't widely owned by international investors. It is unclear if the company's current valuation inside the country could be achieved in bigger markets.

Even if the company went ahead with a smaller share sale, it could still be a significant test for the company and oil markets.

London is the preferred location for that listing, one of the people said. The company has been talking to investors there to gauge their receptiveness for a listing, the person said. The kingdom has also revived plans from the last IPO to try to bring in investors from China, some of the people said, but nothing has been decided.

Some of the people close to the company said it is trying to cash in while investors still have an appetite for oil-related assets in a rapidly decarbonizing world. Distaste toward oil assets is growing as more investors factor in environmental criteria that determine how they allocate their funds. Aramco is the world's fourth most-profitable public company after Apple Inc., Google parent Alphabet Inc. and Microsoft Corp.

The company has been wringing value from other parts of its energy infrastructure. In December it agreed to sell a 49% stake in its natural-gas pipeline business to a consortium led by BlackRock Inc. and Saudi-backed Hassana Investment Co. for $15.5 billion.

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https://tax.gov.ae/-/media/Files/EN/PDF/Info-Graphics/jeer-infographics.jpg

الهيئة الاتحادية للضرائب
FEDERAL TAX AUTHORITY

UAE Corporate Tax

Effective for financial years starting on or after 1 June 2023

Objectives

Cementing the UAE's position as a world-leading hub for business and investment

Meeting international standards for tax transparency and preventing harmful tax practices

Accelerating the UAE's development and transformation to achieve its strategic objectives

Tax rates

0% Tax rate for taxable income up to AED 375,000 to support small businesses and startups

9% Headline corporate tax rate for taxable income exceeding AED 375,000

Key features

- Individuals will not be subject to corporate tax on income from employment, real estate, investment in shares or other personal income not related to a UAE trade or businesses
- No corporate tax will apply on foreign investors who do not carry on business in the UAE
- Corporate tax will apply on the adjusted accounting net profit of the business
- Free zone businesses that meet all necessary requirements can continue to benefit from corporate tax incentives
- The extraction of natural resources will remain subject to Emirate level corporate taxation
- No withholding tax will apply on domestic and cross border payments
- No corporate tax will apply on capital gains and dividends received by a UAE business from its qualifying shareholdings
- No corporate tax will apply on qualifying intragroup transactions and restructurings
- Foreign tax will be allowed to be credited against UAE corporate tax payable
- Generous loss transfer and utilisation rules will be available to businesses

https://www.wam.ae/en/details/1395303016461

Mon 31-01-2022 15:04 PM

Ministry of Finance to introduce federal corporate tax on business profits, effective for financial years starting on or after 1 June 2023

وزارة المالية
MINISTRY OF FINANCE

A-AA+

ABU DHABI, 31st January, 2022 (WAM) -- The Ministry of Finance has announced that the UAE will introduce a federal corporate tax on business profits that will be effective for financial years starting on or after 1st June 2023. Businesses will become subject to UAE corporate tax from the beginning of their first financial year that starts on or after 1st June 2023.

The UAE corporate tax regime has been designed to incorporate best practices globally and minimise the compliance burden on businesses. Corporate tax will be payable on the profits of UAE businesses as reported in their financial statements prepared in accordance with internationally acceptable accounting standards, with minimal exceptions and adjustments. The corporate tax will apply to all businesses and commercial activities alike, except for the extraction of natural resources which will remain subject to Emirate level corporate taxation.

With a standard statutory tax rate of 9 percent and a 0 percent tax rate for taxable profits up to AED375,000 to support small businesses and startups, the UAE corporate tax regime will be amongst the most competitive in the world.

No corporate tax will apply on personal income from employment, real estate and other investments, or on any other income earned by individuals that does not arise from a business or other form of commercial activity licensed or otherwise permitted to be undertaken in the UAE.

"As a leading jurisdiction for innovation and investment, the UAE plays a pivotal role in helping businesses grow, locally and globally. The certainty of a competitive and best in class corporate tax regime, together with the UAE's extensive double tax treaty network, will cement the UAE's position as a world-leading hub for business and investment", said Younis Haji Al Khoori, Undersecretary of the Ministry of Finance.

Younis Haji Al Khoori further adds that "with the introduction of corporate tax, the UAE reaffirms its commitment to meeting international standards for tax transparency and preventing harmful tax practices. The regime will pave the way for the UAE to address the challenges arising from the digitalisation of the global economy and the other remaining BEPS [Base Erosion and Profit Shifting] concerns, and execute its support for the introduction of a global minimum tax rate by applying a different corporate tax rate to large multinationals that meet specific criteria set with reference to the above initiative."

Recognising the contribution of free zones to the UAE's economy and competitiveness, the UAE corporate tax regime will continue to honour the corporate tax incentives currently being offered to free zone businesses that comply with all regulatory requirements and that do not conduct business with mainland UAE.

Given the position of the UAE as a global financial centre and an international business hub, the UAE will not impose withholding taxes on domestic and cross border payments, or subject foreign investors who do not carry on business in the UAE to corporate tax.

As an international headquarter location, a UAE business will be exempt from paying tax on capital gains and dividends received from its qualifying shareholdings, and foreign taxes will be allowed to be credited against UAE corporate tax payable.

The UAE corporate tax regime will have generous loss utilisation rules and will allow UAE groups to be taxed as a single entity or to apply group relief in respect of losses and intragroup transactions and restructurings.

The UAE corporate tax regime will ensure the compliance burden is kept to a minimum for businesses that prepare and maintain adequate financial statements. Businesses will only need to file one corporate tax return each financial year and will not be required to make advance tax payments or prepare provisional tax returns. Transfer pricing and documentation requirements will apply to UAE businesses with reference to the OECD Transfer Pricing Guidelines.

"The introduction of a corporate tax regime will help the UAE achieve its strategic ambitions and incentivise businesses to establish and expand their activities in the UAE," said Younis Haji Al Khoori.

UAE businesses will be given ample time to prepare for the introduction of corporate tax in the UAE. The UAE Ministry of Finance plans to issue further information on the UAE corporate tax regime toward the middle of the year to help businesses get ready and be fully compliant.

*For further information, please visit the Federal Tax Authority website:
https://tax.gov.ae/en

WAM/Esraa Ismail/Lina ibrahim

https://apnews.com/article/middle-east-iran-donald-trump-iran-nuclear-antony-blinken-d27d88cbff7e61ef18c11bfd68d2a60a

US grants sanctions relief to Iran as nuke talks in balance

By MATTHEW LEEtoday

WASHINGTON (AP) — The Biden administration on Friday restored some sanctions relief to Iran's atomic program as talks aimed at salvaging the languishing 2015 nuclear deal enter a critical phase.

As U.S. negotiators head back to Vienna for what could be a make-or-break session, Secretary of State Antony Blinken signed several sanctions waivers related to Iran's civilian nuclear activities. The move reverses the Trump administration's decision to rescind them.

The waivers are ultimately intended to entice Iran back to the 2015 deal that it has been violating since former President Donald Trump withdrew from the agreement in 2018 and reimposed U.S. sanctions. In the short term, the waivers will exempt foreign countries and companies that work in Iran's civilian nuclear sector from American penalties.

U.S. officials said that is critical to building support for a return to the deal and denied they were granting Iran any concessions. The officials said the waivers are necessary to bring the other parties to the deal — Britain, China, France, Germany, Russia and the European Union — on board.

"We did NOT provide sanctions relief for Iran and WILL NOT until/unless Tehran returns to its commitments under the JCPOA," State Department spokesman Ned Price tweeted, using the acronym for the official name of the nuclear deal, the Joint Comprehensive Plan of Action.

"We did precisely what the last administration did: permit our international partners to address growing nuclear nonproliferation and safety risks in Iran," Price said.

The Trump administration had grudgingly approved the waivers, which apply to Chinese, Russian and European companies, even after withdrawing from the deal. But that ended when former Secretary of State Mike Pompeo rescinded them in May 2020.

Iran says it is not respecting the terms of the deal because the U.S. pulled out of it first. Iran has demanded the restoration of all sanctions relief it was promised under the deal to return to compliance.

The Trump administration had ended the so-called "civ-nuke" waivers in May 2020 as part of its "maximum pressure" campaign against Iran that began when Trump withdrew the U.S. from the deal in 2018, complaining that it was the worst diplomatic agreement ever negotiated and gave Iran a pathway to developing the bomb.

As a presidential candidate, Joe Biden made a U.S. return to the nuclear deal a priority, and his administration has pursued that goal, though there has been little progress toward that end since he took office a year ago. Administration officials said the waivers were being restored to help push the Vienna negotiations forward.

“The waiver with respect to these activities is designed to facilitate discussions that would help to close a deal on a mutual return to full implementation of the JCPOA and lay the groundwork for Iran’s return to performance of its JCPOA commitments,” the State Department said in a notice to Congress that announced the move.

“It is also designed to serve U.S. nonproliferation and nuclear safety interests and constrain Iran’s nuclear activities,” the department said. “It is being issued as a matter of policy discretion with these objectives in mind, and not pursuant to a commitment or as part of a quid pro quo. We are focused on working with partners and allies to counter the full range of threats that Iran poses.”

A copy of the State Department notice and the actual waivers signed by Blinken were obtained by The Associated Press.

The waivers permit foreign countries and companies to work on civilian projects at Iran’s Bushehr nuclear power station, its Arak heavy water plant and the Tehran Research Reactor. Pompeo had revoked the waivers in May 2020, accusing Iran of “nuclear extortion” for continuing and expanding work at the sites.

Critics of the nuclear deal who lobbied Trump to withdraw from it protested, arguing that even if the Biden administration wants to return to the 2015 deal it should at least demand some concessions from Iran before up front granting it sanctions relief.

“From a negotiating perspective, they look desperate: we’ll waive sanctions before we even have a deal, just say yes to anything!” said Rich Goldberg, a vocal deal opponent who is a senior adviser to the hawkish Foundation for Defense of Democracies.

http://en.kremlin.ru/supplement/5770?s=08

Joint Statement of the Russian Federation and the People's Republic of China on the International Relations Entering a New Era and the Global Sustainable Development

February 4, 2022

At the invitation of President of the People's Republic of China Xi Jinping, President of the Russian Federation Vladimir V. Putin visited China on 4 February 2022. The Heads of State held talks in Beijing and took part in the opening ceremony of the XXIV Olympic Winter Games.

The Russian Federation and the People's Republic of China, hereinafter referred to as the sides, state as follows.

Today, the world is going through momentous changes, and humanity is entering a new era of rapid development and profound transformation. It sees the development of such processes and phenomena as multipolarity, economic globalization, the advent of information society, cultural diversity, transformation of the global governance architecture and world order; there is increasing interrelation and interdependence between the States; a trend has emerged towards redistribution of power in the world; and the international community is showing a growing demand for the leadership aiming at peaceful and gradual development. At the same time, as the pandemic of the new coronavirus infection continues, the international and regional security situation is complicating and the number of global challenges and threats is growing from day to day. Some actors representing but the minority on the international scale continue to advocate unilateral approaches to addressing international issues and resort to force; they interfere in the internal affairs of other states, infringing their legitimate rights and interests, and incite contradictions, differences and confrontation, thus hampering the development and progress of mankind, against the opposition from the international community.

The sides call on all States to pursue well-being for all and, with these ends, to build dialogue and mutual trust, strengthen mutual understanding, champion such universal human values as peace, development, equality, justice, democracy and freedom, respect the rights of peoples to independently determine the development paths of their countries and the sovereignty and the security and development interests of States, to protect the United Nations-driven international architecture and the international law-based world order, seek genuine multipolarity with the United Nations and its Security Council playing a central and coordinating role, promote more democratic international relations, and ensure peace, stability and sustainable development across the world.

I

The sides share the understanding that democracy is a universal human value, rather than a privilege of a limited number of States, and that its promotion and protection is a common responsibility of the entire world community.

The sides believe that democracy is a means of citizens' participation in the government of their country with the view to improving the well-being of population and implementing the principle of popular government. Democracy is exercised in all spheres of public life as part of a nation-wide process and reflects the interests of all the people, its will, guarantees its rights, meets its needs and protects its interests. There is no one-size-fits-all template to guide countries in establishing democracy. A nation can choose such forms and methods of implementing democracy that would best suit its particular state, based on its social and political system, its historical background, traditions and unique cultural characteristics. It is only up to the people of the country to decide whether their State is a democratic one.

The sides note that Russia and China as world powers with rich cultural and historical heritage have long-standing traditions of democracy, which rely on thousand-years of experience of development, broad popular support and consideration of the needs and interests of citizens. Russia and China guarantee their people the right to take part through various means and in various forms in the administration of the State and public life in accordance with the law. The people of both countries are certain of the way they have chosen and respect the democratic systems and traditions of other States.

The sides note that democratic principles are implemented at the global level, as well as in administration of State. Certain States' attempts to impose their own ”democratic standards“ on other countries, to monopolize the right to assess the level of compliance with democratic criteria, to draw dividing lines based on the grounds of ideology, including by establishing exclusive blocs and alliances of convenience, prove to be nothing but flouting of democracy and go against the spirit and true values of democracy. Such attempts at hegemony pose serious threats to global and regional peace and stability and undermine the stability of the world order.

The sides believe that the advocacy of democracy and human rights must not be used to put pressure on other countries. They oppose the abuse of democratic values and interference in the internal affairs of sovereign states under the pretext of protecting democracy and human rights, and any attempts to incite divisions and confrontation in the world. The sides call on the international community to respect cultural and civilizational diversity and the rights of peoples of different countries to self-determination. They stand ready to work together with all the interested partners to promote genuine democracy.

The sides note that the Charter of the United Nations and the Universal Declaration of Human Rights set noble goals in the area of universal human rights, set forth fundamental principles, which all the States must comply with and observe in deeds. At the same time, as every nation has its own unique national features, history, culture, social system and level of social and economic development, universal nature of human rights should be seen through the prism of the real situation in every particular country, and human rights should be protected in accordance with the specific situation in each country and the needs of its population. Promotion and protection of human rights is a shared responsibility of the international community. The states should equally prioritize all categories of human rights and promote them in a systemic manner. The international human rights cooperation should be carried out as a dialogue between the equals involving all countries. All States must have equal access to the right to development. Interaction and cooperation on human rights matters should be based on the principle of equality of all countries and mutual respect for the sake of strengthening the international human rights architecture.

II

The sides believe that peace, development and cooperation lie at the core of the modern international system. Development is a key driver in ensuring the prosperity of the nations. The ongoing pandemic of the new coronavirus infection poses a serious challenge to the fulfilment of the UN 2030 Agenda for Sustainable Development. It is vital to enhance partnership relations for the sake of global development and make sure that the new stage of global development is defined by balance, harmony and inclusiveness.

The sides are seeking to advance their work to link the development plans for the Eurasian Economic Union and the Belt and Road Initiative with a view to intensifying practical cooperation between the EAEU and China in various areas and promoting greater interconnectedness between the Asia Pacific and Eurasian regions. The sides reaffirm their focus on building the Greater Eurasian Partnership in parallel and in coordination with the Belt and Road construction to foster the development of regional associations as well as bilateral and multilateral integration processes for the benefit of the peoples on the Eurasian continent.

The sides agreed to continue consistently intensifying practical cooperation for the sustainable development of the Arctic.

The sides will strengthen cooperation within multilateral mechanisms, including the United Nations, and encourage the international community to prioritize development issues in the global macro-policy coordination. They call on the developed countries to implement in good faith their formal commitments on development assistance, provide more resources to developing countries, address the uneven development of States, work to offset such imbalances within States, and advance global and international development cooperation. The Russian side confirms its readiness to continue working on the China-proposed Global Development Initiative, including participation in the activities of the Group of Friends of the Global Development Initiative under the UN auspices. In order to accelerate the implementation of the UN 2030 Agenda for Sustainable Development, the sides call on the international community to take practical steps in key areas of cooperation such as poverty reduction, food security, vaccines and epidemics control, financing for development, climate change, sustainable development, including green development, industrialization, digital economy, and infrastructure connectivity.

The sides call on the international community to create open, equal, fair and non-discriminatory conditions for scientific and technological development, to step up practical implementation of scientific and technological advances in order to identify new drivers of economic growth.

The sides call upon all countries to strengthen cooperation in sustainable transport, actively build contacts and share knowledge in the construction of transport facilities, including smart transport and sustainable transport, development and use of Arctic routes, as well as to develop other areas to support global post-epidemic recovery.

The sides are taking serious action and making an important contribution to the fight against climate change. Jointly celebrating the 30th anniversary of the adoption of the UN Framework Convention on Climate Change, they reaffirm their commitment to this Convention as well as to the goals, principles and provisions of the Paris Agreement, including the principle of common but differentiated responsibilities. The sides work together to ensure the full and effective implementation of the Paris Agreement, remain committed to fulfilling the obligations they have undertaken and expect that developed countries will actually ensure the annual provision of $100 billion of climate finance to developing states. The sides oppose setting up new barriers in international trade under the pretext of fighting climate change.

The sides strongly support the development of international cooperation and exchanges in the field of biological diversity, actively participating in the relevant global governance process, and intend to jointly promote the harmonious development of humankind and nature as well as green transformation to ensure sustainable global development.

The Heads of State positively assess the effective interaction between Russia and China in the bilateral and multilateral formats focusing on the fight against the COVID-19 pandemic, protection of life and health of the population of the two countries and the peoples of the world. They will further increase cooperation in the development and manufacture of vaccines against the new coronavirus infection, as well as medical drugs for its treatment, and enhance collaboration in public health and modern medicine. The sides plan to strengthen coordination on epidemiological measures to ensure strong protection of health, safety and order in contacts between citizens of the two countries. The sides have commended the work of the competent authorities and regions of the two countries on implementing quarantine measures in the border areas and ensuring the stable operation of the border crossing points, and intend to consider establishing a joint mechanism for epidemic control and prevention in the border areas to jointly plan anti-epidemic measures to be taken at the border checkpoints, share information, build infrastructure and improve the efficiency of customs clearance of goods.

The sides emphasize that ascertaining the origin of the new coronavirus infection is a matter of science. Research on this topic must be based on global knowledge, and that requires cooperation among scientists from all over the world. The sides oppose politicization of this issue. The Russian side welcomes the work carried out jointly by China and WHO to identify the source of the new coronavirus infection and supports the China – WHO joint report on the matter. The sides call on the global community to jointly promote a serious scientific approach to the study of the coronavirus origin.

The Russian side supports a successful hosting by the Chinese side of the Winter Olympic and Paralympic Games in Beijing in 2022.

The sides highly appreciate the level of bilateral cooperation in sports and the Olympic movement and express their readiness to contribute to its further progressive development.

III

The sides are gravely concerned about serious international security challenges and believe that the fates of all nations are interconnected. No State can or should ensure its own security separately from the security of the rest of the world and at the expense of the security of other States. The international community should actively engage in global governance to ensure universal, comprehensive, indivisible and lasting security.

The sides reaffirm their strong mutual support for the protection of their core interests, state sovereignty and territorial integrity, and oppose interference by external forces in their internal affairs.

The Russian side reaffirms its support for the One-China principle, confirms that Taiwan is an inalienable part of China, and opposes any forms of independence of Taiwan.

Russia and China stand against attempts by external forces to undermine security and stability in their common adjacent regions, intend to counter interference by outside forces in the internal affairs of sovereign countries under any pretext, oppose colour revolutions, and will increase cooperation in the aforementioned areas.

The sides condemn terrorism in all its manifestations, promote the idea of creating a single global anti-terrorism front, with the United Nations playing a central role, advocate stronger political coordination and constructive engagement in multilateral counterterrorism efforts. The sides oppose politicization of the issues of combating terrorism and their use as instruments of policy of double standards, condemn the practice of interference in the internal affairs of other States for geopolitical purposes through the use of terrorist and extremist groups as well as under the guise of combating international terrorism and extremism.

The sides believe that certain States, military and political alliances and coalitions seek to obtain, directly or indirectly, unilateral military advantages to the detriment of the security of others, including by employing unfair competition practices, intensify geopolitical rivalry, fuel antagonism and confrontation, and seriously undermine the international security order and global strategic stability.

The sides oppose further enlargement of NATO and call on the North Atlantic Alliance to abandon its ideologized cold war approaches, to respect the sovereignty, security and interests of other countries, the diversity of their civilizational, cultural and historical backgrounds, and to exercise a fair and objective attitude towards the peaceful development of other States. The sides stand against the formation of closed bloc structures and opposing camps in the Asia-Pacific region and remain highly vigilant about the negative impact of the United States' Indo-Pacific strategy on peace and stability in the region. Russia and China have made consistent efforts to build an equitable, open and inclusive security system in the Asia-Pacific Region (APR) that is not directed against third countries and that promotes peace, stability and prosperity.

The sides welcome the Joint Statement of the Leaders of the Five Nuclear-Weapons States on Preventing Nuclear War and Avoiding Arms Races and believe that all nuclear-weapons States should abandon the cold war mentality and zero-sum games, reduce the role of nuclear weapons in their national security policies, withdraw nuclear weapons deployed abroad, eliminate the unrestricted development of global anti-ballistic missile defense (ABM) system, and take effective steps to reduce the risks of nuclear wars and any armed conflicts between countries with military nuclear capabilities.

The sides reaffirm that the Treaty on the Non-Proliferation of Nuclear Weapons is the cornerstone of the international disarmament and nuclear non-proliferation system, an important part of the post-war international security system, and plays an indispensable role in world peace and development.

The international community should promote the balanced implementation of the three pillars of the Treaty and work together to protect the credibility, effectiveness and the universal nature of the instrument.

The sides are seriously concerned about the trilateral security partnership between Australia, the United States, and the United Kingdom (AUKUS), which provides for deeper cooperation between its members in areas involving strategic stability, in particular their decision to initiate cooperation in the field of nuclear-powered submarines. Russia and China believe that such actions are contrary to the objectives of security and sustainable development of the Asia-Pacific region, increase the danger of an arms race in the region, and pose serious risks of nuclear proliferation. The sides strongly condemn such moves and call on AUKUS participants to fulfil their nuclear and missile non-proliferation commitments in good faith and to work together to safeguard peace, stability, and development in the region.

Japan's plans to release nuclear contaminated water from the destroyed Fukushima nuclear plant into the ocean and the potential environmental impact of such actions are of deep concern to the sides. The sides emphasize that the disposal of nuclear contaminated water should be handled with responsibility and carried out in a proper manner based on arrangements between the Japanese side and neighbouring States, other interested parties, and relevant international agencies while ensuring transparency, scientific reasoning, and in accordance with international law.

The sides believe that the U.S. withdrawal from the Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles, the acceleration of research and the development of intermediate-range and shorter-range ground-based missiles and the desire to deploy them in the Asia-Pacific and European regions, as well as their transfer to the allies, entail an increase in tension and distrust, increase risks to international and regional security, lead to the weakening of international non-proliferation and arms control system, undermining global strategic stability. The sided call on the United States to respond positively to the Russian initiative and abandon its plans to deploy intermediate-range and shorter-range ground-based missiles in the Asia-Pacific region and Europe. The sides will continue to maintain contacts and strengthen coordination on this issue.

The Chinese side is sympathetic to and supports the proposals put forward by the Russian Federation to create long-term legally binding security guarantees in Europe.

The sides note that the denunciation by the United States of a number of important international arms control agreements has an extremely negative impact on international and regional security and stability.

The sides express concern over the advancement of U.S. plans to develop global missile defence and deploy its elements in various regions of the world, combined with capacity building of high-precision non-nuclear weapons for disarming strikes and other strategic objectives. The sides stress the importance of the peaceful uses of outer space, strongly support the central role of the UN Committee on the Peaceful Uses of Outer Space in promoting international cooperation, maintaining and developing international space law and regulation in the field of space activities. Russia and China will continue to increase cooperation on such matters of mutual interest as the long-term sustainability of space activities and the development and use of space resources. The sides oppose attempts by some States to turn outer space into an arena of armed confrontation and reiterate their intention to make all necessary efforts to prevent the weaponization of space and an arms race in outer space. They will counteract activities aimed at achieving military superiority in space and using it for combat operations. The sides affirm the need for the early launch of negotiations to conclude a legally binding multilateral instrument based on the Russian-Chinese draft treaty on the prevention of placement of weapons in outer space and the use or threat of force against space objects that would provide fundamental and reliable guarantees against an arms race and the weaponization of outer space.

Russia and China emphasize that appropriate transparency and confidence-building measures, including an international initiative/political commitment not to be the first to place weapons in space, can also contribute to the goal of preventing an arms race in outer space, but such measures should complement and not substitute the effective legally binding regime governing space activities.

The sides reaffirm their belief that the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (BWC) is an essential pillar of international peace and security. Russia and China underscore their determination to preserve the credibility and effectiveness of the Convention.

The sides affirm the need to fully respect and further strengthen the BWC, including by institutionalizing it, strengthening its mechanisms, and adopting a legally binding Protocol to the Convention with an effective verification mechanism, as well as through regular consultation and cooperation in addressing any issues related to the implementation of the Convention.

The sides emphasize that domestic and foreign bioweapons activities by the United States and its allies raise serious concerns and questions for the international community regarding their compliance with the BWC. The sides share the view that such activities pose a serious threat to the national security of the Russian Federation and China and are detrimental to the security of the respective regions. The sides call on the U.S. and its allies to act in an open, transparent, and responsible manner by properly reporting on their military biological activities conducted overseas and on their national territory, and by supporting the resumption of negotiations on a legally binding BWC Protocol with an effective verification mechanism.

The sides, reaffirming their commitment to the goal of a world free of chemical weapons, call upon all parties to the Chemical Weapons Convention to work together to uphold its credibility and effectiveness. Russia and China are deeply concerned about the politicization of the Organization for the Prohibition of Chemical Weapons and call on all of its members to strengthen solidarity and cooperation and protect the tradition of consensual decision-making. Russia and China insist that the United States, as the sole State Party to the Convention that has not yet completed the process of eliminating chemical weapons, accelerate the elimination of its stockpiles of chemical weapons.

The sides emphasize the importance of balancing the non-proliferation obligations of states with the interests of legitimate international cooperation in the use of advanced technology and related materials and equipment for peaceful purposes. The sides note the resolution entitled ”Promoting international Cooperation on Peaceful Uses in the Context of International Security“ adopted at the 76th session of the UN General Assembly on the initiative of China and co-sponsored by Russia, and look forward to its consistent implementation in accordance with the goals set forth therein.

The sides attach great importance to the issues of governance in the field of artificial intelligence. The sides are ready to strengthen dialogue and contacts on artificial intelligence.

The sides reiterate their readiness to deepen cooperation in the field of international information security and to contribute to building an open, secure, sustainable and accessible ICT environment. The sides emphasize that the principles of the non-use of force, respect for national sovereignty and fundamental human rights and freedoms, and non-interference in the internal affairs of other States, as enshrined in the UN Charter, are applicable to the information space. Russia and China reaffirm the key role of the UN in responding to threats to international information security and express their support for the Organization in developing new norms of conduct of states in this area.

The sides welcome the implementation of the global negotiation process on international information security within a single mechanism and support in this context the work of the UN Open-ended Working Group on security of and in the use of information and communication technologies (ICTs) 2021–2025 (OEWG) and express their willingness to speak with one voice within it. The sides consider it necessary to consolidate the efforts of the international community to develop new norms of responsible behaviour of States, including legal ones, as well as a universal international legal instrument regulating the activities of States in the field of ICT. The sides believe that the Global Initiative on Data Security, proposed by the Chinese side and supported, in principle, by the Russian side, provides a basis for the Working Group to discuss and elaborate responses to data security threats and other threats to international information security.

The sides reiterate their support of United Nations General Assembly resolutions 74/247 and 75/282, support the work of the relevant Ad Hoc Committee of Governmental Experts, facilitate the negotiations within the United Nations for the elaboration of an international convention on countering the use of ICTs for criminal purposes. The sides encourage constructive participation of all sides in the negotiations in order to agree as soon as possible on a credible, universal, and comprehensive convention and provide it to the United Nations General Assembly at its 78th session in strict compliance with resolution 75/282. For these purposes, Russia and China have presented a joint draft convention as a basis for negotiations.

The sides support the internationalization of Internet governance, advocate equal rights to its governance, believe that any attempts to limit their sovereign right to regulate national segments of the Internet and ensure their security are unacceptable, are interested in greater participation of the International Telecommunication Union in addressing these issues.

The sides intend to deepen bilateral cooperation in international information security on the basis of the relevant 2015 intergovernmental agreement. To this end, the sides have agreed to adopt in the near future a plan for cooperation between Russia and China in this area.

IV

The sides underline that Russia and China, as world powers and permanent members of the United Nations Security Council, intend to firmly adhere to moral principles and accept their responsibility, strongly advocate the international system with the central coordinating role of the United Nations in international affairs, defend the world order based on international law, including the purposes and principles of the Charter of the United Nations, advance multipolarity and promote the democratization of international relations, together create an even more prospering, stable, and just world, jointly build international relations of a new type.

The Russian side notes the significance of the concept of constructing a ”community of common destiny for mankind“ proposed by the Chinese side to ensure greater solidarity of the international community and consolidation of efforts in responding to common challenges. The Chinese side notes the significance of the efforts taken by the Russian side to establish a just multipolar system of international relations.

The sides intend to strongly uphold the outcomes of the Second World War and the existing post-war world order, defend the authority of the United Nations and justice in international relations, resist attempts to deny, distort, and falsify the history of the Second World War.

In order to prevent the recurrence of the tragedy of the world war, the sides will strongly condemn actions aimed at denying the responsibility for atrocities of Nazi aggressors, militarist invaders, and their accomplices, besmirch and tarnish the honour of the victorious countries.

The sides call for the establishment of a new kind of relationships between world powers on the basis of mutual respect, peaceful coexistence and mutually beneficial cooperation. They reaffirm that the new inter-State relations between Russia and China are superior to political and military alliances of the Cold War era. Friendship between the two States has no limits, there are no ”forbidden“ areas of cooperation, strengthening of bilateral strategic cooperation is neither aimed against third countries nor affected by the changing international environment and circumstantial changes in third countries.

The sides reiterate the need for consolidation, not division of the international community, the need for cooperation, not confrontation. The sides oppose the return of international relations to the state of confrontation between major powers, when the weak fall prey to the strong. The sides intend to resist attempts to substitute universally recognized formats and mechanisms that are consistent with international law for rules elaborated in private by certain nations or blocs of nations, and are against addressing international problems indirectly and without consensus, oppose power politics, bullying, unilateral sanctions, and extraterritorial application of jurisdiction, as well as the abuse of export control policies, and support trade facilitation in line with the rules of the World Trade Organization (WTO).

The sides reaffirmed their intention to strengthen foreign policy coordination, pursue true multilateralism, strengthen cooperation on multilateral platforms, defend common interests, support the international and regional balance of power, and improve global governance.

The sides support and defend the multilateral trade system based on the central role of the World Trade Organization (WTO), take an active part in the WTO reform, opposing unilateral approaches and protectionism. The sides are ready to strengthen dialogue between partners and coordinate positions on trade and economic issues of common concern, contribute to ensuring the sustainable and stable

operation of global and regional value chains, promote a more open, inclusive, transparent, non-discriminatory system of international trade and economic rules.
The sides support the G20 format as an important forum for discussing international economic cooperation issues and anti-crisis response measures, jointly promote the invigorated spirit of solidarity and cooperation within the G20, support the leading role of the association in such areas as the international fight against epidemics, world economic recovery, inclusive sustainable development, improving the global economic governance system in a fair and rational manner to collectively address global challenges.
The sides support the deepened strategic partnership within BRICS, promote the expanded cooperation in three main areas: politics and security, economy and finance, and humanitarian exchanges.
In particular, Russia and China intend to encourage interaction in the fields of public health, digital economy, science, innovation and technology, including artificial intelligence technologies, as well as the increased coordination between BRICS countries on international platforms. The sides strive to further strengthen the BRICS Plus/Outreach format as an effective mechanism of dialogue with regional integration associations and organizations of developing countries and States with emerging markets.
The Russian side will fully support the Chinese side chairing the association in 2022, and assist in the fruitful holding of the XIV BRICS summit.
Russia and China aim to comprehensively strengthen the Shanghai Cooperation Organization (SCO) and further enhance its role in shaping a polycentric world order based on the universally recognized principles of international law, multilateralism, equal, joint, indivisible, comprehensive and sustainable security.
They consider it important to consistently implement the agreements on improved mechanisms to counter challenges and threats to the security of SCO member states and, in the context of addressing this task, advocate expanded functionality of the SCO Regional Anti-Terrorist Structure.
The sides will contribute to imparting a new quality and dynamics to the economic interaction between the SCO member States in the fields of trade, manufacturing, transport, energy, finance, investment, agriculture, customs, telecommunications, innovation and other areas of mutual interest, including through the use of advanced, resource-saving, energy efficient and ”green“ technologies.
The sides note the fruitful interaction within the SCO under the 2009 Agreement between the Governments of the Shanghai Cooperation Organization member States on cooperation in the field of international information security, as well as within the specialized Group of Experts. In this context, they welcome the adoption of the SCO Joint Action Plan on Ensuring International Information Security for 2022–2023 by the Council of Heads of State of SCO Member States on September 17, 2021 in Dushanbe.
Russia and China proceed from the ever-increasing importance of cultural and humanitarian cooperation for the progressive development of the SCO. In order to strengthen mutual understanding between the people of the SCO member States, they will continue to effectively foster interaction in such areas as cultural ties, education, science and technology, healthcare, environmental protection, tourism, people-to-people contacts, sports.
Russia and China will continue to work to strengthen the role of APEC as the leading platform for multilateral dialogue on economic issues in the Asia-Pacific region. The sides intend to step up coordinated action to successfully implement the ”Putrajaya guidelines for the development of APEC until 2040“ with a focus on creating a free, open, fair, non-discriminatory, transparent and predictable trade and investment environment in the region. Particular emphasis will be placed on the fight against the novel coronavirus infection pandemic and economic recovery, digitalization of a wide range of different spheres of life, economic growth in remote territories and the establishment of interaction between APEC and other regional multilateral associations with a similar agenda.
The sides intend to develop cooperation within the ”Russia-India-China“ format, as well as to strengthen interaction on such venues as the East Asia Summit, ASEAN Regional Forum on Security, Meeting

of Defense Ministers of the ASEAN Member States and Dialogue Partners. Russia and China support ASEAN's central role in developing cooperation in East Asia, continue to increase coordination on deepened cooperation with ASEAN, and jointly promote cooperation in the areas of public health, sustainable development, combating terrorism and countering transnational crime. The sides intend to continue to work in the interest of a strengthened role of ASEAN as a key element of the regional architecture.

SAF Group created transcript of excerpts from Gulf Intelligence podcast "Daily Energy Markets – Feb 6th" [LINK]. Sean Evers, Managing Partner Gulf Intelligence, Mike Muller, Head Vitol Asia, Christof Ruhl, Senior Research Scholar Center on Global Energy Policy Columbia University

Items in "*italics*" are SAF Group created transcript

At 0:50 min mark, Evers re all bullish oil items like Aramco raising OSP, *"you told us last time, more or less pointed in this direction firmly, do you think this keeps moving from here?"* Muller "*well, it's come $2.50 last week and about $2.50 the previous week as well so it's not an unrestrained rally but, Yes, markets have very high implied volatility at these levels. And we have moved from a market that at the end of the year seemed a little bit to be in a risk off mode to people now seem to take great interest in the energy complex. But the bit I like to come to straight away here is fundamentals because there are a lot of people saying that, and I have heard some of your podcast last week for example suggesting, there are fundamental signs that are mixed. And my view is that it's a very resolute positive. There are reasons why the market is backward at the front and so backward, so much so that the market is telling you be careful, don't be short because we are one disruption, one refinery wobble away from markets getting even stronger. Whether it's the backwardation in the distillates market, whether it's jet fuel is trading at or above gas/oil, whether it's the backwardation in crude, these are all the manifestation of tightness up at the front where there is scarcity or a perceived scarcity of supply, which is not being helped by a combination of many refinery closures in recent years for reasons we know. Plus unscheduled refinery issues. Plus certainly in Europe the need to factor in higher gas prices and carbon prices into refinery margins. so refining margins are telling you refineries should be running flat out because product cracks are at levels we haven't seen for many, many months. As a consequence, that should be pulling very hard on crude markets. And inventories continue to sit at levels that are worrisome. and then we'll start talking about where the spare capacity is and the pace and rate of investments in the US is not quite what it was before, we're still nowhere near the peak that we saw pre-pandemic in terms pf US production capacity. And the spare capacity in OPEC+ is really down to two and a half or three members now and month after the month the 400,000 barrels per day that is being put on the market is actually, in effect, a much much smaller number than that. which leads us to a point in time that we can debate whether it's the 2nd half of this year or sometime next year, OPEC spare capacity reaches levels that are considered alarming. So much so that the debate has now swung to how soon we need Iranian supply to help alleviate the situation. Or whether there is even a need for more SPR because the way the SPR releases that Joe Biden's administration initiated over a month back were, with hindsight, just a small event."*

At 7:15 min mark, Evers asks about "*Mike, what are your thoughts coming from many that this is a year of two halves. The first half will be tight, the second half will ease off. We've had the US CEO of ConocoPhillips over the weekend warning that people are underestimating how much US oil production could come back this year as much as nearly a million barrels as part of that easing in the second half, your thoughts?"* Muller "*I didn't read the ConocoPhillips CEO comments as a warning, I read it as a factual statement. and I think it was another 800,000 to 900,000 barrels a day of US shale production that people at the very least would have expected. If you put me in a time capsule and sent me back a year and said if the oil price were at $75 a barrel, how much extra production would we see in the US? I would have given you his number. we're at 90 something so I think with WTI thru 90, I think those numbers are reasonably modest and they are a reflection of conservatism. And the prioritization among oil majors, even the listed US majors to not put all their eggs in the shale and oil basket in this time of energy transition. so, Yes, I don't subscribe to the view that you have two halves, the second half being weak. Except, everybody is building into their balances for the second half, the return of Iranian crude. And it's really a question of when. Administratively, even if there were to be a reconciliation and an agreement to drop sanctions, the return of Iranian crude is not foreseeable in Q2, even under an express outcome. So one has to assume this is a second half event. And then it's a question of what sort of rate of ramp up and I think most observers will be aware that there is a floating inventory of unsold oil on ships that have been commonly referred to as the floating flotilla of South Pars condensate largely. That would obviously all get released into the market somewhat* *quicker and then the rate of ramp up will also be reasonably quick. But the fact that this is in people's balances already and has been. Without exception, every investment bank, every advisory consultant, every oil major, they all have a view that Iranian oil will be out later this year tells you the world needs this oil*."

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

Feb 04, 2022 04:39:22

OIL DEMAND MONITOR: Traffic Gets Busier in London and New York

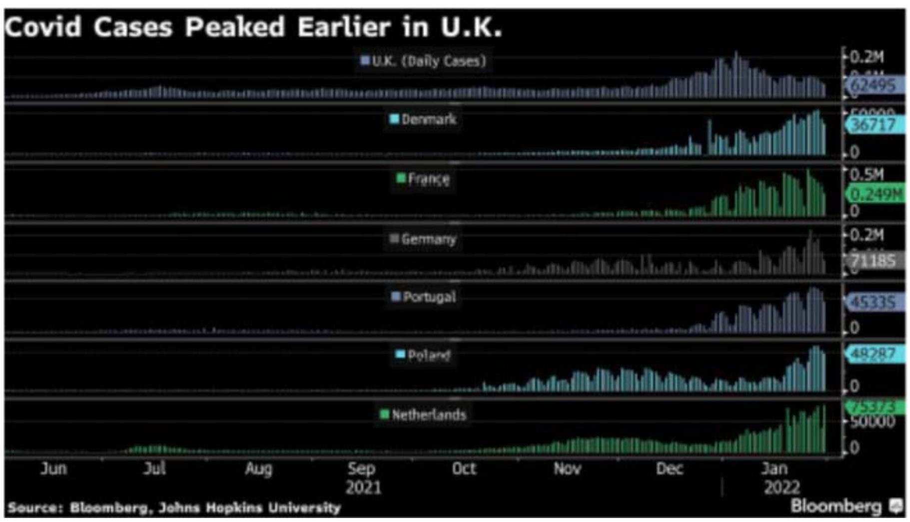
- London traffic shows commuting headed back to normal levels
- Storms cancel flights across many U.S. cities this week

By Stephen Voss

(Bloomberg) -- Traffic in London and New York exceeded pre-pandemic levels on Monday, the first time since early December that both cities have shown that kind of congestion at the start of the week and a sign that commuting may be getting back to normal.

Traffic was higher than pre-coronavirus levels in the U.K. capital for a third consecutive Monday morning, according to TomTom NV data. That's in contrast to other European cities and perhaps reflects the omicron-variant infection wave peaking two or three weeks earlier in the U.K. than elsewhere. The government dropped its work-from-home advice for England on Jan. 19.

While London and New York were above, the other 11 world cities regularly examined in this monitor all showed congestion significantly below typical 2019 levels on Monday. Taipei dropped steeply due to public holidays and Berlin also weakened, while congestion intensified in Sao Paulo.

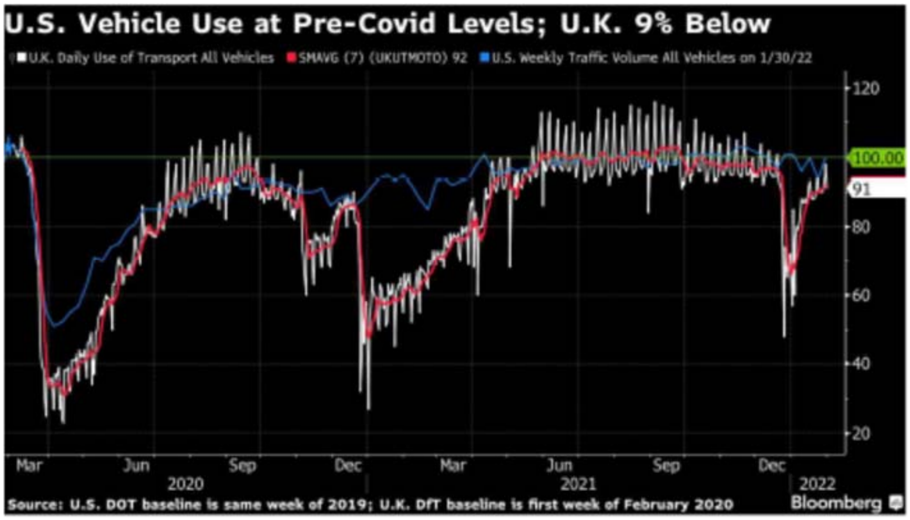


Nationwide, U.K. road fuel sales continue to recover from the steep dip during the Christmas-New Year holiday period, according to service-station data collected by the Department for Business, Energy and Industrial Strategy. Gasoline and diesel sales combined now trail pre-pandemic levels by only 11% compared with a deficit of 24% in the week ended Jan. 9. Data for other European nations is mostly monthly, and isn't yet available for January.

U.S. demand estimates have settled down after their usual volatility around the turn of the year, when stockpiles are moved around for tax purposes. Nevertheless, the latest estimate for the week ended Jan. 28 showed gasoline demand relatively weak at about 8.2 million barrels a day, 14% below the equivalent week of 2019, which is a larger percentage deficit than the 10% decline for jet fuel. Distillate demand -- including diesel -- remains strong, helping to keep consumption for all types of oil products almost 3% above the same period of 2019, according to the estimates from the Energy Information Administration.

Road Sensors

Another high-frequency insight to transport fuels is monitoring via roadway sensors. Data collected by the respective transport ministries show U.S. vehicle use was essentially back to normal in the week ended Jan. 30, 0.4% above the same period of 2019, while the U.K. was 9% below a pre-pandemic baseline as of Jan. 31.



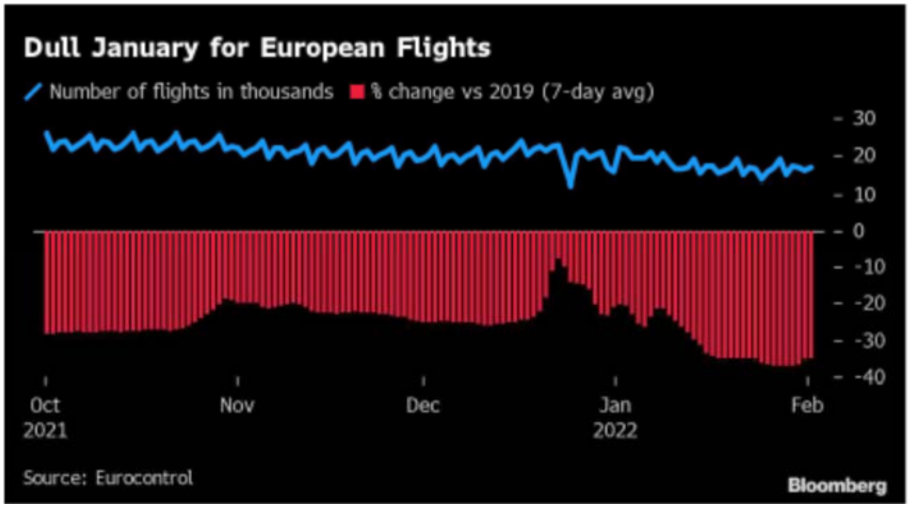
The highway cameras data corroborates service-station sales figures in showing that British car owners have returned to the roads much quicker than they did in January last year, when England entered a third virus lockdown that lasted for months.

Data for another large consuming nation, India, is now available for the full month of January, and it shows a slump in both major road fuels from December levels, as the virus outbreak kept many people at home.

Sales of diesel -- the dominant fuel in India -- tumbled about 13% month on month, and were about 9% lower than those in January 2020, which was before the pandemic reached the subcontinent, according to Bloomberg surveys of the country's three main fuel retailers. Gasoline demand fell from December though it remained fractionally above January 2020 levels.

Flight Numbers Unimpressive

European flight numbers show scant sign of improvement in the typically low-travel month of January. Arrival and departure numbers for 41 nations sank below 20,000 a day on Jan. 10 and hasn't yet risen above that, according to government-funded Eurocontrol. The tally as of Feb. 2 was 35% below the same period of 2019, having narrowed that deficit to about 8% just before Christmas.



U.S. flight data also appears uninspiring. The number of people passing through U.S. airports shows a wider gap opening up again when compared against early 2019 and early 2020, according to data from the Transportation Security Administration. Harsh weather has no doubt contributed to some of the recent downturn.

A rolling seven-day average of the worldwide number of commercial flights on Wednesday showed a slight month-on-month decline and was 20% lower than the equivalent period of 2019, according to daily tracking data from FlightRadar24.

The Bloomberg weekly oil-demand monitor uses a range of high-frequency data to help identify emerging trends.

Following are the latest indicators. The first two tables show fuel demand and mobility, the next shows air travel globally and the fourth is refinery activity:

Demand Measure	Location	% y/y	% vs 2020	% vs 2019	% m/m	Freq	Latest Date	Latest Value	Source
Gasoline	U.S.	+5.9	-7.9	-14	-0.7	w	Jan. 28	8.23m b/d	EIA
Distillates	U.S.	+11	+11	+13	+25	w	Jan. 28	4.67m b/d	EIA
Jet fuel	U.S.	+95	-12	-10	unch	w	Jan. 28	1.47m b/d	EIA
Total oil products	U.S.	+16	+2.9	+2.8	+8.9	w	Jan. 28	21.4m b/d	EIA
All vehicles miles traveled	U.S.			+0.4		w	Jan. 30	14.2b miles	DoT
Passenger car VMT	U.S.			-3.4		w	Jan. 30	n/a	DoT
Truck VMT	U.S.			+16		w	Jan. 30	n/a	DoT
All motor vehicle use index	U.K.	+38		-9	+52	w	Jan. 31	91	DfT
Car use	U.K.	+48		-13	+36	w	Jan. 31	87	DfT
Heavy goods vehicle use	U.K.	+7.1		+5	+250	w	Jan. 31	105	DfT
Gasoline (petrol) avg sales per filling station	U.K.	+59		-9.8	+31	w	Jan. 24-30	6,572 liters/d	BEIS
Diesel avg sales per station	U.K.	+24		-12	+75	w	Jan. 24-30	9,247 liters/d	BEIS
Total road fuels sales per station	U.K.	+36		-11	+53	w	Jan. 24-30	15,819 liters/d	BEIS
Gasoline	India	-5.4	+0.2		-12	2/m	Jan. 1-31	2.23m tons	Bberg
Diesel	India	-6.9	-9		-13	2/m	Jan. 1-31	5.63m tons	Bberg
LPG	India	+4.1	+6.5		+4	2/m	Jan. 1-31	2.6m tons	Bberg
Jet fuel	India	-0.1	-41		-18	2/m	Jan. 1-31	415k tons	Bberg
Total Products	India	+0.4		-5.4	+7.7	m	December	18.4m tons	PPAC
Toll roads volume	Italy	+102		+3.7			Dec. 20-26	n/a	Atlantia
Toll roads volume	Spain	+39		-9			Dec. 20-26	n/a	Atlantia
Toll roads volume	France	+28		-5.3			Dec. 20-26	n/a	Atlantia
Toll roads volume	Brazil	+7.9		+0.5			Dec. 20-26	n/a	Atlantia
Toll roads volume	Chile	+51		+27			Dec. 20-26	n/a	Atlantia
Toll roads volume	Mexico	+20		+11			Dec. 20-26	n/a	Atlantia
Gasoline	Spain	+23		+1.4	+6.3	m	December	477k m3	Exolum

Diesel	Spain	+7.6		-0.7	+2.7	m	December	2466k m3	Exolum
Jet fuel	Spain	+142		-24	+8	m	December	377k m3	Exolum
Road fuel sales	France	+12			+4.7	m	December	4.28m m3	UFIP
Jet fuel	France	+64			+11	m	December	507k m3	UFIP
All petroleum products	France	+14		-0.3	+5.9	m	December	4.83m tons	UFIP
Total fuel sales	Italy	+18		+1.6	+5.6	m	December	4.49m tons	Ministry
Gasoline	Italy	+33		+5.4	+10	m	December	644k tons	Ministry
Diesel /gasoil	Italy	+20		+6.6	+7.4	m	December	2.4m tons	Ministry
Jet fuel	Italy	+101		-39	-2.3	m	December	217k tons	Ministry
All vehicles traffic	Italy	+35			-2	m	December	n/a	Anas
Heavy vehicle traffic	Italy	+9			-10	m	December	n/a	Anas
Gasoline	Portugal	+17		-2.5	+8	m	December	87k tons	ENSE
Diesel	Portugal	+10		-3.4	+0.8	m	December	405k tons	ENSE
Jet fuel	Portugal	+77		-23	-14	m	December	91k tons	ENSE

Notes: Click here for a PDF with more information on sources, methods. The frequency column shows w for data updated weekly, 2/m for twice a month and m for monthly. The column showing "vs 2020" is used for some data, such as comparing Indian fuel demand for Jan. 2022 vs Jan. 2020.
In DfT U.K. daily data, which is updated once a week, the column showing versus 2019 is actually showing the change versus the first week of February 2020, to represent the pre-Covid era.
In BEIS U.K. daily data, which is updated once a week, the column showing versus 2019 is actually showing the change versus the average of Jan. 27-March 22, 2020, to represent the pre-Covid era.
Atlantia is no longer publishing its toll road data as frequently as every week.

City congestion:

Measure	Location	chg vs avg 2019	% chg m/m	Jan. 31	Jan. 24	Jan. 17	Jan. 10	Jan. 3	Dec. 27	Dec. 20	Dec. 13	Dec 6
		(Jan. 31)		Congestion minutes added to 1 hr trip at 8am* local time								
Congestion	Tokyo	-24	+2250	28	32	35	5	1	31	38	37	33
Congestion	Taipei	-95	-94	2	32	33	32	32	43	31	42	41
Congestion	Jakarta	-65	-47	14	31	37	32	26	20	28	30	28
Congestion	Mumbai	-73	+29	13	9	7	7	10	11	14	16	18
Congestion	New York	+15	+216	36	26	4	19	11	5	20	26	32
Congestion	Los Angeles	-27	+153	26	26	8	13	10	6	16	27	29
Congestion	London	+14	+3500	43	41	41	37	1	1	13	36	41
Congestion	Rome	-48	+282	25	25	22	28	7	10	44	50	46
Congestion	Madrid	-61	+667	14	16	12	12	2	3	13	23	0
Congestion	Paris	-20	+84	35	34	35	36	19	10	18	46	52
Congestion	Berlin	-54	-21	16	25	29	29	20	9	22	37	32
Congestion	Mexico City	-55	+76	22	18	15	20	13	11	20	31	34
Congestion	Sao Paulo	-29	+194	28	14	16	19	10	11	23	28	29

Source: TomTom. Click here for a PDF with more information on sources, methods.
* Mumbai and Sao Paulo use 9am statistics rather than 8am.

NOTE: m/m comparisons are Jan. 31 vs Jan. 3. TomTom has been unable to provide Chinese data since late April. Taipei and Jakarta were added to the table in early December. It was a public holiday in New York and Los Angeles on Jan. 17 and in Taipei on Jan. 31.

Air Travel:

Measure	Location	y/y	vs 2 yrs ago	vs 2019	m/m	w/w	Freq.	Latest Date	Latest Value	Source
		changes shown as %								
Airline passenger throughput	U.S.	+93	-47	-25	-20	-0.4	d	Feb. 2	1.19m	TSA
Commercial flights	Worldwide	+39	-22	-20	-2.4	-8.4	d	Feb. 2	83,679	FlightRadar24
Air traffic (flights)	Europe			-35	-13	+8.3	d	Feb. 2	16,649	Eurocontrol
Seat capacity	Worldwide	+48	-29	-28		-0.7	w	Jan. 24-30	75.7m	OAG

NOTE: Comparisons versus 2019 or versus the early weeks of 2020 are a better measure of a return to normal for most nations, rather than y/y comparisons.
FlightRadar24 data shown above, and comparisons thereof, all use 7-day moving averages, except for w/w which uses single day data.

Refineries:

Measure	Location/area	y/y	chg vs 2019	m/m chg	Latest as of Date	Latest Value	Source
		Changes are in ppt unless noted					
Crude intake	U.S.	+4.1%	-7.4%	-3.9%	Jan. 28	15.2m b/d	EIA
Apparent Oil Demand	China	+2.5%		-3.8%	December 2021	13.65m b/d	NBS
Utilization	U.S.	+4.4	-3.4	-3.1	Jan. 28	86.7 %	EIA
Utilization	U.S. Gulf	+1.7	-4.4	-4.7	Jan. 28	86 %	EIA
Utilization	U.S. East	+19	+15	-3.8	Jan. 28	87.4 %	EIA
Utilization	U.S. Midwest	+6.6	-2.8	-1.1	Jan. 28	91.9 %	EIA

NOTE: Comparisons versus 2019 or versus the early weeks of 2020 are a better measure of a return to normal for most nations, rather than y/y comparisons.
FlightRadar24 data shown above, and comparisons thereof, all use 7-day moving averages, except for w/w which uses single day data.

Caixin China General Manufacturing PMI™

Manufacturing sector performance dampened by latest wave of COVID-19

The recent uptick in COVID-19 cases in China, and subsequent round of fresh restrictions, weighed on manufacturing performance at the start of 2022. Companies registered renewed falls in output and new orders during January, though in both cases rates of reduction were only modest. New export business meanwhile fell at the quickest pace since May 2020, and supply chain delays worsened. Average input prices rose at a slightly quicker, but modest rate. Prices charged meanwhile increased following a slight reduction in December.

Manufacturers were confident that output would increase over the next 12 months, often due to forecasts that market conditions will strengthen as the pandemic is brought under control.

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 50.9 in December to 49.1 in January. This signalled the second deterioration in overall business conditions in the past three months, though the rate of decline was only slight.

After rising in the prior two months, manufacturing production across China fell during January. Though modest, the rate of reduction was the quickest seen since last August, with a number of firms linking the fall to lower sales amid the recent uptick in COVID-19 cases both at home and overseas.

Total new orders fell modestly at the start of the year, with weaker external demand a key factor weighing on overall sales. Moreover, new export orders fell at a solid pace that was the quickest seen since May 2020.

Lower intakes of new work led to a renewed, albeit marginal fall in purchasing activity during January. Inventories at manufacturing companies also declined, with both stocks of inputs and finished items falling for the first time in three months.

The rise in COVID-19 cases and fresh restrictions to contain the virus contributed to a further deterioration in supplier performance. The rate at which average delivery times lengthened was the most marked for three months.

As has been the case since August 2021, employment across China's manufacturing sector fell in January. Though modest, the rate of job shedding was the quickest seen since April 2020. Lower workforce numbers were often the result of company down-sizing and cost-cutting efforts, though there were also reports of difficulties finding staff to fill vacant roles.

Latest data indicated that overall capacity pressure eased, with backlogs of work falling for the first time in 11 months. The rate of depletion, though modest, was the quickest seen since July 2013.

Although input prices rose at the fastest pace for three months, the rate of inflation was mild overall and much slower than that seen on average in 2021. Output prices rose at an identically mild pace, following a slight reduction in December.

Despite ongoing COVID-19 related disruption, manufacturers were highly upbeat regarding the 12-month outlook for output. Notably, the level the optimism strengthened from December, buoyed by forecasts of improving market conditions and reduced supply chain disruption once the pandemic recedes.

China General Manufacturing PMI

sa, >50 = improvement since previous month

Sources: Caixin, IHS Markit

Key findings:

Firms register modest falls in output and new orders

Supply chain delays worsen

Inflationary pressures pick up, but remain modest overall

New Export Orders Index

sa, >50 = growth since previous month

Sources: Caixin, IHS Markit

Employment Index

sa, >50 = growth since previous month

Sources: Caixin, IHS Markit

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

"The Caixin China General Manufacturing PMI fell to 49.1 in January, down from 50.9 the previous month. The index slumped into negative territory for the fourth time since February 2020, with January's reading being the lowest in 23 months. Over the past month, there were Covid-19 flare-ups in several regions in China, underscoring the downward pressure on the economy.

"Both supply and demand in the manufacturing sector weakened. Several regions tightened epidemic control measures following the resurgence, which impacted production and sales of manufactured goods. Both the subindexes for output and total new orders in January fell to their lowest since August. Overseas demand shrank at an even faster pace. The spread of the omicron variant of Covid-19 overseas dampened China's external demand, with the gauge for new export orders in January being the lowest in 20 months.

"Pressure on the job market intensified. The measure for employment fell to its lowest since April 2020, marking its sixth straight month in contractionary territory. Because market demand was subdued, manufacturers reduced hiring to keep costs down. Meanwhile, some companies said they had trouble recruiting staff.

"Both stocks and quantity of purchases fell due to subdued market demand. Logistics times lengthened. The gauges for the quantity of purchases, stocks of purchases and stocks of finished goods all fell into negative territory. Backlogs of work declined for the first time in 11 months. Meanwhile, due to tightening epidemic control measures, suppliers' delivery times got longer.

"Inflationary pressure remained stable in January. The gauges for both manufacturers' input costs and output prices rose from the previous month — which was mainly because prices of some raw materials remained high — but the growth rates were stable. The gauges' January readings were well below their 2021 average.

"Manufacturers retained a positive business outlook. The measure of future output expectations, remaining in positive territory, rose from the previous month. Surveyed companies said they were confident China will be able to get Covid under control and market demand and logistics will further recover.

"Overall, manufacturing activity contracted in January. Supply shrank, and demand, especially external demand, was under pressure. Employment remained weak. Stocks and purchases of raw materials fell. Meanwhile, inflationary pressure eased, with the gauges of input costs and output prices remaining stable. The level of manufacturers' optimism held to its long-term average.

"From December to January, the resurgence of Covid-19 in several regions including Xi'an and Beijing forced local governments to tighten epidemic control measures, which restricted production, transportation and sales of manufactured goods. It became more evident that China's economy is straining under the triple pressures of contracting demand, supply shocks and weakening expectations.

"This year, policymakers should make stability their focus. They should prioritize improvements to employment and optimize the structure of the economy. The government should also enhance support for small and micro enterprises, lower the financing costs of businesses, enhance the predictability of policies and respond to market concerns in a timely manner."

https://oguk.org.uk/the-uk-oil-and-gas-industrys-trade-body-is-expanding-to-cover-low-carbon-energy-generation-and-getting-a-new-name/

PRESS RELEASE31ST JAN 2022

The UK oil and gas industry's trade body is expanding to cover low-carbon energy generation – and getting a new name

The leading representative body for the UK's offshore oil and gas industry – OGUK, is expanding to include the exciting low-carbon offshore energy technologies that its members are developing. These will include offshore wind, hydrogen production, carbon capture and storage systems, and other emerging low-carbon technologies.

- The move will also see OGUK changing its name to Offshore Energies UK.
- It follows a year-long strategic review and takes effect from February 14, 2022.
- Offshore Energies UK will continue to champion the oil and gas sector but will also support those with an interest in carbon capture and storage, hydrogen production and offshore wind.
- This move reflects the evolving nature of the industry in creating the diverse mix of energy generating systems needed to achieve net zero.

Deirdre Michie, CEO of Offshore Energies UK, said the organisation would be a unifying voice for an offshore energy sector that was undergoing rapid and positive change. Existing members approved the new strategic direction at their AGM in December 2021.

Deirdre Michie

Offshore Energies UK will continue to work with regulators, policy-makers and stakeholders to champion the offshore energy industries and help achieve a managed transition towards the UK's climate goals. Some key elements of this work are already under way for carbon capture and hydrogen production, through the landmark North Sea Transition Deal that OGUK signed with the UK Government last March – the first deal of its kind by a G7 country.

Deirdre Michie said: "Our members are investing in cleaner energies, boosting the technologies needed to support jobs, communities and the UK's energy security – and to drive the transition to low-carbon energy.

"Following an extensive strategic review, we recognised that we too need to evolve to reflect what is happening in our sector. Working with our members, we are driving forward towards the net zero energy future we all want to see. Our innovative companies, people and communities will add value to the UK economy as we build an integrated offshore energy sector.

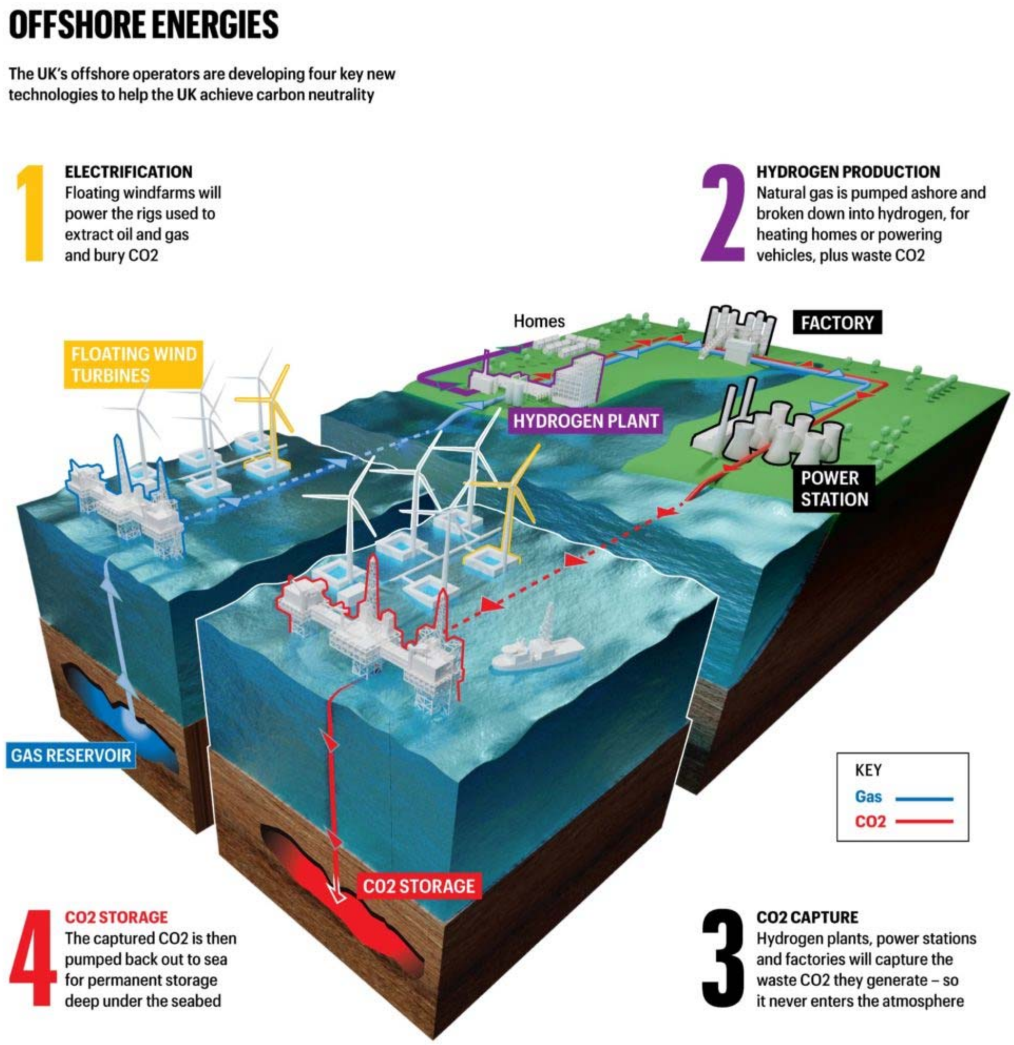
"This is a natural next step for our organisation, which builds on our heritage of proudly championing the UK's oil and gas industry.

"Extending our representation to include renewable and carbon cutting industries will better reflect the agile nature of the companies involved in energy production. We share the same interests, determination and ambition to deliver an integrated net-zero energy system that is cleaner and greener but also secure and sustainable."

Our existing members are already involved in some of the most cutting-edge low-carbon projects across the country, including:

- Acorn Hydrogen & CCS – to turn natural gas into clean hydrogen
- Equinor's Dogger Bank – the world's largest windfarm

- [West Anglesey Tidal Energy Project]() -turning tides into electricity
- [Hywind Scotland]() – the world's first floating windfarm
- [Drax Zero Carbon Humber Projects]() – Decarbonising the UK's largest industrial region
- [OGCI Climate Investments]() – Promoting leadership, and investment in low-carbon tech
- [Net Zero Teesside]() – deploying carbon capture technologies to decarbonise Teesside



This announcement of OGUK's expansion follows the recent Crown Estates Scotland 'ScotWind' leasing round, which saw 13 member companies win leading roles in the 17 ScotWind projects. They will pay over £570 million in leasing fees to build offshore wind farms and develop more than 20GW in potential capacity. More of our member companies will be involved in the supply chains for these projects, with Worley, DNV, Xodus and others supporting Scotwind developments.

Share

https://www.independent.co.uk/climate-change/news/rishi-sunak-climate-change-fossil-fuels-b2007184.html

Rishi Sunak says he wants to encourage more fossil fuel drilling

Chancellor's position contradicts warnings by scientists

Jon Stone Policy Correspondent 1 day ago

Rishi Sunak has said he wants to encourage more investment in new fossil fuel drilling – potentially derailing the UK's climate targets.

Scientists said in the run-up to the COP26 climate summit last year that new fossil fuel exploitation is incompatible with reaching net zero in time.

But the chancellor said on Thursday that encouraging drilling under the North Sea would "support British jobs" and should get the green light.

"I want to make sure that people acknowledge that we should also exploit our domestic resources," he told a press conference.

"We have resources in the North Sea, and we want to encourage investment in that because we're going to need natural gas as part of our transition to getting to net zero.

"And in the process of getting from here to there, if we can get investment in the North Sea that supports British jobs, that's a good thing. So that has to be part of the mix as well."

The chancellor's comments come after the government invited oil and gas companies to help write a rulebook on whether new drilling complies with the UK's climate obligations.

Ministers have previously been accused by environmentalists of living in a "fantasy" for claiming new drilling is compatible with taking action to tackle the climate emergency.

Mr Sunak's comments conflict with a report by the International Energy Agency, commissioned by the UK's own Cop26 president Alok Sharma, which warned last year that new oil and gas production was incompatible with reaching net zero by 2050.

A separate domestic review carried out by the government, however, said that drilling could proceed subject to some conditions.

Those conditions are now set to be determined in part by the industry itself, which has been invited to develop a "checkpoint" that would decide which drilling projects could proceed.

The International Energy Agency's pathway to net zero by 2050, drawn up in May 2021, says that, under a balanced scenario, "there are no new oil and gas fields approved for development" after 2021.

https://twitter.com/METI_JPN/status/1488108828549808131

METI, Japan
@METI_JPN

On Jan 31, #meti_minister Hagiuda held a teleconference with Dr. Birol, Executive Director of the International Energy Agency (IEA), and exchanged views on the importance of both energy security and transitions, and agreed to cooperate with the IEA for the IEA Ministerial meeting

4:16 AM · Jan 31, 2022 · Twitter Web App

1 Retweet **4** Likes

https://twitter.com/fbirol/status/1488095733538594818

International Energy Agency Retweeted

Fatih Birol
@fbirol

Great pleasure to speak with 🇯🇵 Minister Hagiuda of @METI_JPN today

We discussed how clean energy transitions need to be underpinned by market security & stability, both domestically and internationally.

Looking forward to further @IEA-🇯🇵 collaboration on these issues

3:24 AM · Jan 31, 2022 · Twitter Web App

8 Retweets **1** Quote Tweet **25** Likes https://english.news.cn/20220125/2ac02a88b6854ff8b19561f91e2ca19d/c.html

Xi Focus: Xi stresses solid implementation of decisions, arrangements on carbon peaking, neutrality

Source: XinhuaEditor: huaxia2022-01-25 21:16:46

BEIJING, Jan. 25 (Xinhua) -- Xi Jinping, general secretary of the Communist Party of China (CPC) Central Committee, has stressed profoundly analyzing the country's situation and tasks on advancing the carbon peaking and carbon neutrality work, and making solid efforts to implement decisions and arrangements made by the CPC Central Committee.

Xi made the remarks on Monday while addressing a group study session of the Political Bureau of the CPC Central Committee.

Since the 18th CPC National Congress, the CPC Central Committee has achieved marked progress in boosting the green transition of social and economic development, Xi said, urging efforts to recognize the significance of realizing the carbon peaking and neutrality goals and beef up confidence on promoting the work.

Stressing the country's green pursuit is no easy job, Xi said strategic thinking must be improved as people should bear in mind the big picture throughout the whole process of delivering the carbon peaking and neutrality goals.

The relations between development and emission reduction must be properly handled, Xi said.

Cutting emissions is not aimed at curbing productivity or no emissions at all, Xi said, stressing that the economic development and green transition should be mutually reinforcing.

While bringing down carbon emissions, efforts should be made to safeguard energy security, industrial and supply chain security, and food security, as well as ensure people's normal daily lives, Xi said.

Xi stressed national and regional policy coordination and said the "one-size-fits-all" approach should not be adopted.

Both goals in the long run and short-term targets should be taken into account, Xi said, stressing efforts to get the right tempo and strength in carbon cut. He also urged the alignment of a capable government and an effective market.

Xi urged enabling China's institutional advantages, resources, technology potentials and market vitality to play better roles in accelerating the formation of resource-conserving and environment-friendly industrial structures, production modes, living styles and spatial layout.

Coordination should be strengthened to take concerted moves in reducing carbon emissions, cutting pollution, expanding green efforts and promoting growth, Xi said.

On advancing energy revolution, Xi noted that the gradual exit of traditional energy sources should be based on the safe and reliable substitution of new energy sources.

China should resolutely control fossil fuel consumption, especially regulating the growth of coal consumption in a strict and reasonable manner, Xi said.

China should consolidate the foundation for domestic energy production, ensure coal supply security, and keep steady growth of crude oil and natural gas output, according to Xi.

It is necessary to accelerate the development of new energy sources such as wind, solar, biomass and hydrogen energy that have scale and benefits, coordinate hydropower development and ecological protection, and actively develop nuclear power in a safe and orderly manner, according to Xi.

On industrial upgrading, Xi urged efforts to deepen integration between green and low-carbon industry and new technologies like internet, big data, artificial intelligence, and 5G.

Efforts should be made to increase the proportion of green and low-carbon sector in the Chinese economy while strictly curbing the blind expansion of energy-intensive, high emission and low-standard projects, he noted.

Xi also underscored accelerating green and low-carbon technological revolution, calling for efforts to advance related technological breakthroughs, research and development, and application.

The country should further improve the "dual control" system on both total energy consumption and energy intensity, as well as standards for carbon peaking and neutrality, and build a unified and standardized calculating system for carbon emissions, Xi said.

Xi called for efforts to fully leverage market mechanism, improve carbon pricing mechanism and strengthen coordination in trading of electricity, carbon emission rights and energy consumption rights.

China will take a more active role to participate in the global climate negotiations agenda and the formulation of international rules, with the aim of building a fair and equitable global climate governance system featuring mutually beneficial cooperation, Xi said. ■

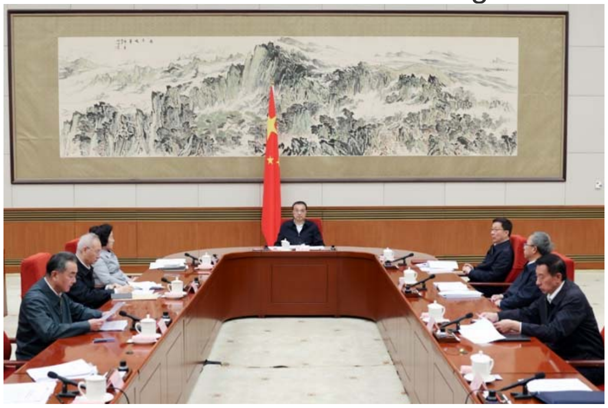
Google Translate of http://www.gov.cn/premier/2021-10/11/content_5641907.htm

Li Keqiang presided over a meeting of the National Energy Commission, emphasizing on ensuring stable energy supply and safety, enhancing the ability to support green development and Han Zheng attended the meeting

2021-10-11 21:06 Source: Xinhua News Agency

Xinhua News Agency, Beijing, October 11th. On October 9, Li Keqiang, member of the Standing Committee of the Political Bureau of the CPC Central Committee, Premier of the State Council, and Director of the National Energy Commission presided over a meeting of the National Energy Commission to deploy energy reform and development work and deliberate the "14th Five-Year Plan" modern energy system plan. , Energy and carbon peak implementation plan, suggestions on improving the system and mechanism of energy green and low-carbon transition and policy measures, etc.

Han Zheng, member of the Standing Committee of the Political Bureau of the CPC Central Committee, Vice Premier of the State Council, and Deputy Director of the National Energy Commission attended the meeting.



On October 9, Li Keqiang, member of the Standing Committee of the Political Bureau of the CPC Central Committee, Premier of the State Council, and Director of the National Energy Commission hosted a meeting of the National Energy Commission in Beijing. Han Zheng, member of the Standing Committee of the Political Bureau of the CPC Central Committee, Vice Premier of the State Council, and Deputy Director of the National Energy Commission attended the meeting. Photo by Xinhua News Agency reporter Ding Haitao

At the meeting, the Development and Reform Commission and the Energy Administration made reports. Li Keqiang said that energy is a major issue related to the overall economic and social development. During the "Thirteenth Five-Year Plan" period, under the strong leadership of the Party Central Committee with Comrade Xi Jinping as the core, all parties worked together to achieve remarkable results in my country's energy development, structural optimization, and efficient and clean utilization. At present, the international environment and global energy structure and system are undergoing profound changes, and my country's energy development and security are facing new challenges. It is necessary to adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, implement the deployment of the Party Central Committee and the State Council, follow the requirements of building a new development pattern, building a new development pattern, and promoting high-quality development based on the new development stage, implement the new development concept, and proceed from the actual conditions of the country. Improve the relationship between development and emission reduction, current and long-term development, coordinate stable growth and structural adjustment, deepen market-oriented reforms in the energy sector, promote green and low-carbon transformation of energy, improve energy security capabilities, and provide solid support for modernization.

Li Keqiang pointed out that energy security is related to development security and national security. my country is still a developing country, and development is the foundation and key to solving all problems. At this stage, industrialization and urbanization are intensifying, and energy demand will inevitably continue to grow. Supply shortage is the biggest energy insecurity. We must build a modern energy system on the premise of ensuring safety, and strive to improve the ability of independent energy supply. Aiming at the endowment of coal-based energy resources, the layout of coal production capacity should be optimized, advanced coal-fired power should be constructed rationally according to development needs, and backward coal-fired power should be eliminated in an orderly manner. Increase domestic oil and gas exploration and development, actively develop shale gas and coalbed methane, and carry out diversified international oil and gas cooperation. Strengthen the construction of gas and oil storage capacity, promote the large-scale application of advanced energy storage technology, and continuously enrich the insurance tools for safe energy supply.

Li Keqiang said that achieving carbon peak and carbon neutrality is a requirement for the transformation and upgrading of my country's economy, and it is also a requirement for jointly responding to climate change. To advance the realization of the "dual carbon" goal in a scientific and orderly manner, long-term arduous efforts must be made. It is necessary to take into account the recent situation of dealing with the contradiction between power and coal supply and demand, in-depth calculations and demonstrations, and study and put forward the timetable and roadmap of the steps to reach the peak of carbon. All localities and all relevant parties must insist on breaking first and then breaking, insisting on a game of chess across the country, and not rushing away. Proceeding from reality, we should correct the “one size fits all” power restriction or campaign-style “carbon reduction” in some places, to ensure that the people in the north can survive the winter warmly and safely, and ensure the stability of the industrial supply chain and the sustained and stable economic development. Vigorously promote the clean utilization of coal, increase the proportion of clean energy, deepen the transformation of energy conservation and emission reduction in key areas, advocate energy conservation in the whole society, and continuously improve the capacity for green development.

Li Keqiang pointed out that innovation is an important driving force for the high-quality development of energy. It is necessary to speed up the research on key core technologies and equipment in the energy field, and strengthen the research and development of green and low-carbon cutting-edge technologies. Improve the intelligent level of the power grid, and enhance the ability to absorb new energy and safe operation. Improve tiered electricity prices, deepen reforms in key areas such as power transmission and distribution, rely more on market mechanisms to promote energy conservation, emission reduction and carbon reduction, and improve energy service levels.

Sun Chunlan, Hu Chunhua, Liu He, Wang Yong, Wang Yi, Xiao Jie, He Lifeng, and relevant units and heads of some enterprises attended the meeting.

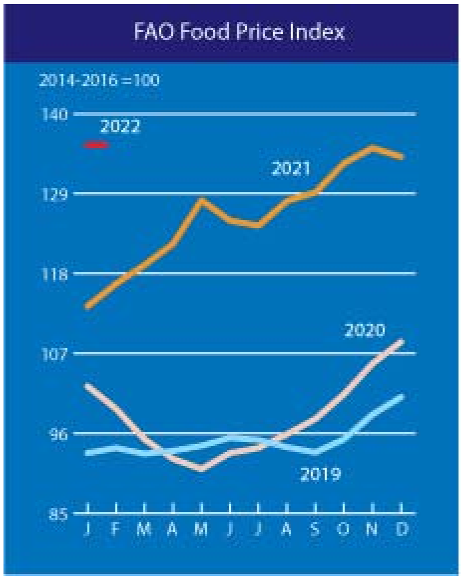
https://www.fao.org/worldfoodsituation/foodpricesindex/en/

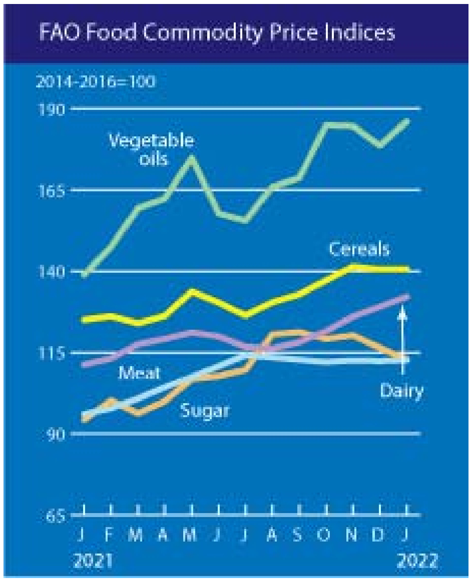
FAO Food Price Index

The FAO Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016. A feature article published in the June 2020 edition of the Food Outlook presents the revision of the base period for the calculation of the FFPI and the expansion of its price coverage, to be introduced from July 2020. A November 2013 article contains technical background on the previous construction of the FFPI.

FAO Food Price Index rebounded in January

Release date: 03/02/2022





» The FAO Food Price Index* (FFPI) averaged 135.7 points in January 2022, 1.5 points (1.1 percent) higher than in December 2021. The FFPI's rebound in January was led by solid gains in vegetable oils and dairy sub-indices, partially offset by a decline in sugar prices for the second consecutive month. Meat and cereal sub-indices remained largely unchanged.

» The FAO Cereal Price Index averaged 140.6 points in January, up marginally (0.1 percent) from December and 15.6 points (12.5 percent) above its level one year ago. World wheat prices eased in January, down 3.1 percent, with increased seasonal supplies from large harvests in Australia and Argentina. However, support from continued strong demand amidst tight global availability of higher-quality wheat along with uncertainty over exportable supplies, prevented prices from declining further. By contrast, maize export prices were firmer in January, gaining 3.8 percent since December, mostly on concerns of persistent drought conditions in the southern hemisphere, namely Argentina and Brazil; spillover effects from the wheat market added upward pressure on maize prices. Among other coarse grains, international sorghum prices also rose in January, in line with maize price trends, while barley quotations were slightly lower. The completion of main-crop harvests in major suppliers and purchases by Asian buyers also raised international rice prices in January by 3.1 percent.

» The FAO Vegetable Oil Price Index averaged 185.9 points in January, up 7.4 points (4.2 percent) month-on-month, marking an all-time high. The rise reflected higher quotations for palm, soy, rapeseed and sunflowerseed oil. After a short-lived drop, international palm oil prices rebounded in January, largely underpinned by concerns over a possible reduction in export availabilities from Indonesia, the world's top palm oil exporter, as well as subdued output in key producing countries. World soyoil prices also recovered, supported by robust import purchases, particularly from India.

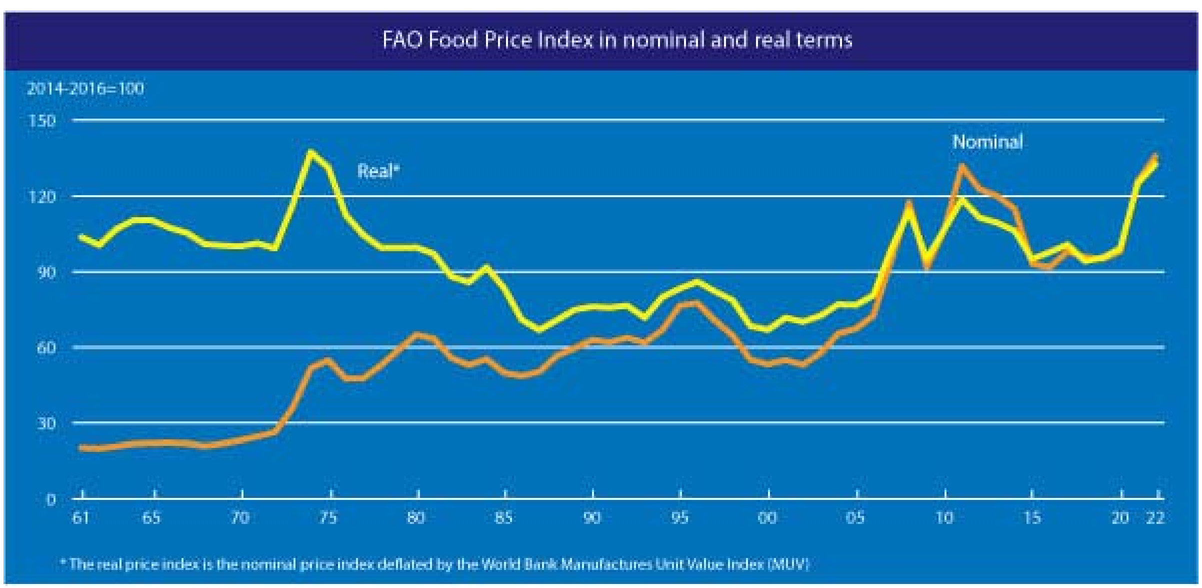
In the meantime, rapeseed and sunflowerseed oil prices were buoyed by, respectively, lingering supply tightness and surging global import demand. Rising crude oil prices also lent support to international vegetable oil values.

» The FAO Dairy Price Index averaged 132.1 points in January, up 3.1 points (2.4 percent) from December 2021, marking the fifth consecutive monthly increase, and placing the index 20.8 points (18.7 percent) above its value in the corresponding month last year. In January, price quotations for dairy products rose, with the steepest increases in skim milk powder and butter. The January increase was underpinned by a tightening in global markets, reflecting a reduction in export availabilities, especially from Western Europe, where a reported reduction in milk deliveries in some large milk-producing countries and lower stock levels supported prices. Expectations for milk production in Oceania to remain below its average levels in the months ahead added to the tightening in global dairy markets. In addition, milk processing and transportation delays due to COVID-19-related labour shortages further contributed to higher dairy prices.

» The FAO Meat Price Index* averaged 112.6 points in January, up slightly from December 2021, and lifting the index value 16.6 points (17.3 percent) above its corresponding month a year ago. In January, bovine prices reached a new peak, underpinned by strong global import demand exceeding export supplies, mainly from Brazil and Oceania, reflecting lower cattle supplies for processing. Meanwhile, pig meat quotations rose slightly, as labour shortages and high input costs dampened global supply, countering the downward pressure from China's slowdown in imports. By contrast, ovine and poultry meat prices softened further, as global exportable supplies outstripped import demand, despite constrained supplies stemming from COVID-19-related production and transportation delays, and avian flu outbreaks in some large poultry meat producing countries.

» The FAO Sugar Price Index averaged 112.8 points in January, down 3.7 points (3.1 percent) from December, marking the second consecutive monthly decline and the lowest level in the past six months. The January decline in international sugar price quotations was mostly related to favourable production prospects and good harvest progress in major exporters, India and Thailand, and improved rains in key growing areas of Brazil. In addition, lower ethanol prices in Brazil exerted further downward pressure on world sugar prices in January. However, the strengthening of the Brazilian Real against the US Dollar, which tends to restrain shipments from Brazil, the world's largest sugar exporter, prevented more substantial sugar price declines.

* Unlike for other commodity groups, most prices utilized in the calculation of the FAO Meat Price Index are not available when the FAO Food Price Index is computed and published; therefore, the value of the Meat Price Index for the most recent months is derived from a mixture of projected and observed prices. This can, at times, require significant revisions in the final value of the FAO Meat Price Index which could in turn influence the value of the FAO Food Price Index.



FAO food price index

		Food Price Index [1]	Meat [2]	Dairy [3]	Cereals [4]	Vegetables Oils [5]	Sugar [6]
2004		**65.6**	**67.6**	**69.8**	**64.0**	**69.6**	44.3
2005		**67.4**	**71.8**	**77.2**	**60.8**	**64.4**	61.2
2006		**72.6**	**70.5**	**73.1**	**71.2**	**70.5**	91.4
2007		**94.3**	**76.9**	**122.4**	**100.9**	**107.3**	62.4
2008		**117.5**	**90.2**	**132.3**	**137.6**	**141.1**	79.2
2009		**91.7**	**81.2**	**91.4**	**97.2**	**94.4**	112.2
2010		**106.7**	**91.0**	**111.9**	**107.5**	**122.0**	131.7
2011		**131.9**	**105.3**	**129.9**	**142.2**	**156.5**	160.9
2012		**122.8**	**105.0**	**111.7**	**137.4**	**138.3**	133.3
2013		**120.1**	**106.2**	**140.9**	**129.1**	**119.5**	109.5
2014		**115.0**	**112.2**	**130.2**	**115.8**	**110.6**	105.2
2015		**93.0**	**96.7**	**87.1**	**95.9**	**89.9**	83.2
2016		**91.9**	**91.0**	**82.6**	**88.3**	**99.4**	111.6
2017		**98.0**	**97.7**	**108.0**	**91.0**	**101.9**	99.1
2018		**95.9**	**94.9**	**107.3**	**100.8**	**87.8**	77.4
2019		**95.1**	**100.0**	**102.8**	**96.6**	**83.2**	78.6
2020		**98.1**	**95.5**	**101.8**	**103.1**	**99.4**	79.5
2021		**125.8**	**107.8**	**119.1**	**131.2**	**164.9**	109.3
2021	January	**113.5**	96.0	111.2	125.0	138.9	94.2
	February	**116.6**	97.8	113.1	126.1	147.5	100.2
	March	**119.2**	100.8	117.5	123.9	159.3	96.2
	April	**122.1**	104.3	119.1	126.2	162.2	100.0
	May	**128.1**	107.4	121.1	133.7	174.9	106.8
	June	**125.3**	110.7	119.9	130.3	157.7	107.7
	July	**124.6**	114.1	116.7	126.3	155.5	109.6
	August	**128.0**	113.4	116.2	130.4	165.9	120.5
	September	**129.2**	112.7	118.1	132.8	168.6	121.2
	October	**133.2**	112.0	121.5	137.1	184.8	119.1
	November	**135.3**	112.5	126.0	141.4	184.6	120.2
	December	**134.1**	112.3	129.0	140.5	178.5	116.4
2022	January	**135.7**	112.6	132.1	140.6	185.9	112.8

1 Food Price Index: Consists of the average of 5 commodity group price indices mentioned above, weighted with the average export shares of each of the groups for 2014-2016: in total 95 price quotations considered by FAO commodity specialists as representing the international prices of the food commodities are included in the overall index. Each sub-index is a weighted average of the price relatives of the commodities included in the group, with the base period price consisting of the averages for the years 2014-2016.

2 Meat Price Index: Based on 35 average export unit values/market prices of four meat types (bovine, pig, poultry and ovine) from 10 representative markets. Within each meat type, export unit values/prices are weighted by the trade shares of their respective markets, while the meat types are weighted by their average global export trade shares for 2014-2016. Quotations for the two most recent months may consist of estimates and be subject to revision.

3 Dairy Price Index: Computed using 8 price quotations of four dairy products (butter, cheese, SMP and WMP) from two representative markets. Within each dairy product, prices are weighted by the trade shares of their respective markets, while the dairy products are weighted by their average export shares for 2014-2016.

4 Cereals Price Index: Compiled using the International Grains Council (IGC) wheat price index (an average of 10 different wheat price quotations), the IGC maize price index (an average of 4 different maize price quotations), the IGC barley price index (an average of 5 different barley price quotations), 1 sorghum export quotation and the FAO All Rice Price Index. The FAO All Rice Price Index is based on 21 rice export quotations, combined into four groups consisting of Indica, Aromatic, Japonica and Glutinous rice varieties. Within each varietal group, a simple average of the relative prices of appropriate quotations is calculated; then the average relative prices of each of the four rice varieties are combined by weighting them with their (fixed) trade shares for 2014-2016. The Cereal Price Index combines the relative prices of sorghum, the IGC wheat, maize and barley price indices (re-based to 2014-2016) and the FAO All Rice Price Index by weighing each commodity with its average export trade share for 2014-2016.

5 Vegetable Oil Price Index: Consists of an average of 10 different oils weighted with average export trade shares of each oil product for 2014-2016.

6 Sugar Price Index: Index form of the International Sugar Agreement prices with 2014-2016 as base.

Dan Tsubouchi @Energy_Tidbits · 1h

as of 7am MT, still haven't posted the #Vortexa crude oil floating storage as of Feb 4 on @TheTerminal. finishing the weekly Energy Tidbits memo now so won't have any Vortexa data in it. #OOTT

> **Dan Tsubouchi** @Energy_Tidbits · 16h
>
> haven't posted a weekly #Vortexa crude oil floating storage as of Feb 4 because nothing yet posted on @TheTerminal. i will check later tonight #OOTT

2

Dan Tsubouchi @Energy_Tidbits · 1h

1/3. what an opening statement from @michaelwmuller to @sean_evers "market is telling you be careful, don't be short because we are one disruption, one refinery wobble away from markets getting even stronger. #OOTT

> SAF Group created transcript of excerpts from Gulf Intelligence podcast "Daily Energy Markets – Feb 6th" [LINK]. Sean Evers, Managing Partner Gulf Intelligence, Mike Muller, Head Vitol Asia, Christof Ruhl, Senior Research Scholar Center on Global Energy Policy Columbia University
>
> Items in "*italics*" are SAF Group created transcript
>
> At 0:50 min mark, Evers re all bullish oil items like Aramco raising OSP. "*you told us last time, more or less pointed in this direction firmly, do you think this keeps moving from here?*" Muller "*well, it's come $2.50 last week and about $2.50 the previous week as well so it's not an unrestrained rally but, Yes, markets have very high implied volatility at these levels. And we have moved from a market that at the end of the year seemed a little bit to be in a risk off mode to people now seem to take great interest in the energy complex. But the bit I like to come to straight away here is fundamentals because there are a lot of people saying that, and I have heard some of your podcast last week for example suggesting, there are fundamental signs that are mixed. And my view is that it's a very resolute positive. There are reasons why the market is backward at the front and so backward, so much so that the market is telling you be careful, don't be short because we are one disruption, one refinery wobble away from markets getting even stronger. Whether it's the backwardation in the distillates market, whether it's jet fuel is trading at or above gas/oil, whether it's the backwardation in crude, these are all the manifestation of tightness up at the front where there is scarcity or a perceived scarcity of supply, which is not being helped by a combination of many refinery closures in recent years for reasons we know. Plus unscheduled refinery issues. Plus certainly in Europe the need to factor in higher gas prices and carbon prices into refinery margins. so refining margins are telling you refineries should be running flat out because product cracks are at levels we haven't seen for many, many months. As a consequence, that should be pulling very hard on crude markets. And inventories continue to sit at levels that are worrisome. and then we'll start talking about where the spare capacity is and the pace and rate of investments in the US is not quite what it was before, we're still nowhere near the peak that we saw pre-pandemic in terms pf US production capacity. And the spare capacity in OPEC+ is really down to two and a half or three members now and month after the month the 400,000 barrels per day that is being put on the market is actually, in effect, a much much smaller number than that. which leads us to a point in time that we can debate whether it's the 2nd half of this year or sometime next year, OPEC spare capacity reaches levels that are considered alarming. So much so that the debate has now swung to how soon we need Iranian supply to help alleviate the situation. Or whether there is even a need for more SPR because the way the SPR releases that Joe Biden's administration initiated over a month back were, with hindsight, just a small event.*"
>
> Prepared by SAF Group https://safgroup.ca/news-insights/

> **Gulf Intelligence** @gulf_intel · 6h
>
> **PODCAST**: Daily Energy Markets - Feb. 6
>
> Right 👉 soundcloud.com/user-846530307...
>
> @michaelwmuller @vitolnews @CrystolEnergy @Columbia ...

1 4 6

SAF

Dan Tsubouchi @Energy_Tidbits · 1h

3/3. "we can debate whether it's the 2nd half of this year or sometime next year, #OPEC spare capacity reaches levels that are considered alarming""debate has now swung to how soon we need Iranian supply to help alleviate the situation". that's opening statement only. #OOTT

SAF Group created transcript of excerpts from Gulf Intelligence podcast "Daily Energy Markets – Feb 6th" [LINK]. Sean Evers, Managing Partner Gulf Intelligence, Mike Muller, Head Vitol Asia, Christof Ruhl, Senior Research Scholar Center on Global Energy Policy Columbia University

Items in "*italics*" are SAF Group created transcript

At 0:50 min mark, Evers re all bullish oil items like Aramco raising OSP, "*you told us last time, more or less pointed in this direction firmly, do you think this keeps moving from here?*" Muller "*well, it's come $2.50 last week and about $2.50 the previous week as well so it's not an unrestrained rally but, Yes, markets have very high implied volatility at these levels. And we have moved from a market that at the end of the year seemed a little bit to be in a risk off mode to people now seem to take great interest in the energy complex. But the bit I like to come to straight away here is fundamentals because there are a lot of people saying that, and I have heard some of your podcast last week for example suggesting, there are fundamental signs that are mixed. And my view is that it's a very resolute positive. There are reasons why the market is backward at the front and so backward, so much so that the market is telling you be careful, don't be short because we are one disruption, one refinery wobble away from markets getting even stronger. Whether it's the backwardation in the distillates market, whether it's jet fuel is trading at or above gas/oil, whether it's the backwardation in crude, these are all the manifestation of tightness up at the front where there is scarcity or a perceived scarcity of supply, which is not being helped by a combination of many refinery closures in recent years for reasons we know. Plus unscheduled refinery issues. Plus certainly in Europe the need to factor in higher gas prices and carbon prices into refinery margins. so refining margins are telling you refineries should be running flat out because product cracks are at levels we haven't seen for many, many months. As a consequence, that should be pulling very hard on crude markets. And inventories continue to sit at levels that are worrisome. and then we'll start talking about where the spare capacity is and the pace and rate of investments in the US is not quite what it was before, we're still nowhere near the peak that we saw pre-pandemic in terms pf US production capacity. And the spare capacity in OPEC+ is really down to two and a half or three members now and month after the month the 400,000 barrels per day that is being put on the market is actually, in effect, a much much smaller number than that. which leads us to a point in time that we can debate whether it's the 2nd half of this year or sometime next year, OPEC spare capacity reaches levels that are considered alarming. So much so that the debate has now swung to how soon we need Iranian supply to help alleviate the situation. Or whether there is even a need for more SPR because the way the SPR releases that Joe Biden's administration initiated over a month back were, with hindsight, just a small event.*"

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

1 1

SAF

Dan Tsubouchi @Energy_Tidbits · 1h

3/3.

Dan Tsubouchi @Energy_Tidbits · 3h

definitely worth a listen. so many great #Oil #NatGas #LNG insights from today's podcast. great job @sean_evers @michaelwmuller @ColumbiaUEnergy #OOTT

> **Gulf Intelligence** @gulf_intel · 6h
>
> **PODCAST:** Daily Energy Markets - Feb. 6
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> Right 👉 soundcloud.com/user-846530307...
>
> @michaelwmuller @vitolnews @CrystolEnergy @Columbia @ColumbiaUEnergy
>
> #OOTT #OPEC #energy #oilmarkets #analytic

1 2 1

SAF

Dan Tsubouchi @Energy_Tidbits · 15h

Had to chuckle at #Biden remarks. talks about high food, #Gasoline prices, etc & then says "We're going to keep strengthening the supply chains to bring down the costs of every — all of these goods." think he meant to say "every - all" except #Oil #NatGas supply chain. #OOTT

Excerpt
https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/02/04/remarks-by-president-biden-on-the-january-jobs-report/

Remarks by President Biden on the January Jobs Report

FEBRUARY 04, 2022-SPEECHES AND REMARKS

State Dining Room

11:50 A.M. EST

And they're still going to do well. But that isn't going to be enough. We still need to ease the burden on working families by making everyday things more affordable and accessible.

Look, average people are getting clobbered by the cost of everything today. Gas prices at the pump are up. We're working to bring them down, but they're up.

Food prices are up. We're working to bring them down as well.

Look, I grew up in a family where if the price for a gallon of gas at the pump went up significantly, it was felt by the family. I get it. I understand. But these things are necessities, but that's not the totality of what the family needs. They still have to pay for childcare. They still have to pay for prescription drugs. They still have to pay for healthcare.

There's more than one way to help a family when it comes to their standard of living. We're going to work to bring down the prices that are way up, but guess what? Guess what? We're going to keep strengthening the supply chains to bring down the costs of every — all of these goods.

We're still going to work on gas prices. We're still going to work on the food prices. But in the meantime, we can deliver that peace of — we can deliver that peace of mind to the American people and give them a little breathing room.

2 3

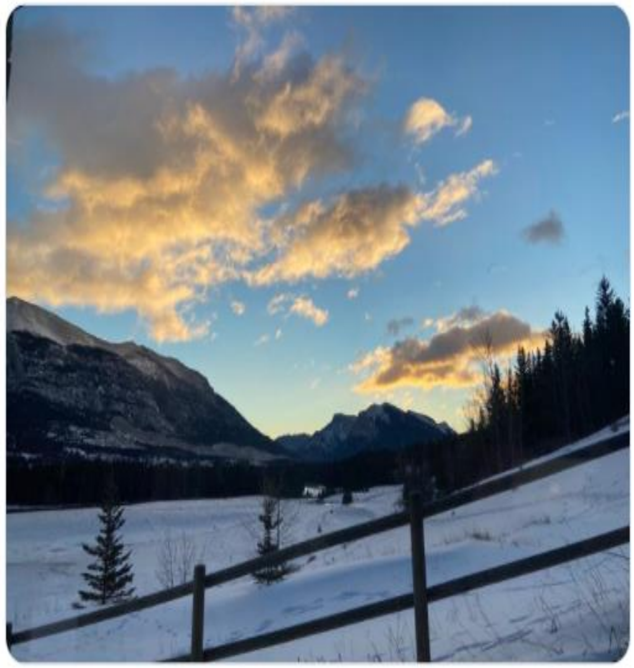
Dan Tsubouchi @Energy_Tidbits · 16h

haven't posted a weekly #Vortexa crude oil floating storage as of Feb 4 because nothing yet posted on @TheTerminal. i will check later tonight #OOTT

2 2

Dan Tsubouchi @Energy_Tidbits · 23h

a great morning sky on #Canmore in the Cdn Rockies. looking east over the Bow River and then some of the local elk at the top of the hill having their morning meal

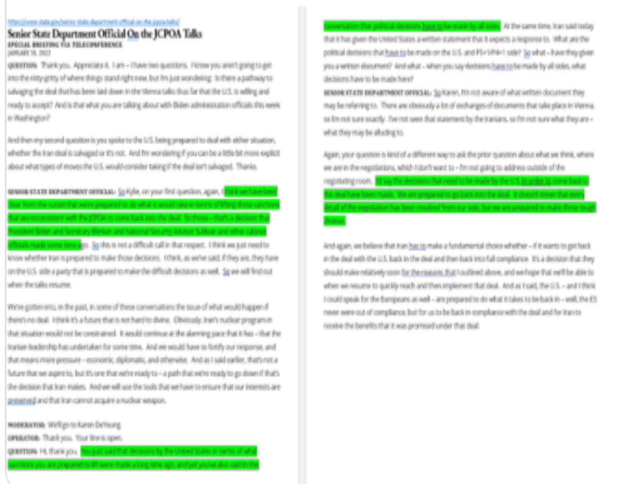


12

Dan Tsubouchi @Energy_Tidbits · Feb 5

#JCPOA. #Biden had this briefing on Tues for a reason - he is prepared to give on something to get JCPOA done. Reality is that any give will be messaged as a "detail". #OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Feb 1
>
> Sounds like #Biden prepared to make last minute concessions to get #JCPOA. "We are prepared to go back into the deal. It doesn't mean that every detail of the negotiation has been resolved from our side, but we are prepared to make those tough choices" US State Dept. #OOTT



Senior State Department Official On the JCPOA Talks

SPECIAL BRIEFING VIA TELECONFERENCE

4 2

SAF

Dan Tsubouchi @Energy_Tidbits · Feb 4

UK @RishiSunak encourage more #Oil #NatGas drilling as "we're going to need #NatGas as part of our transition to getting to #NetZero". Latest to have #MacronMoment & come out of closet to try to have transition to avoid self inflicted energy crisis every yr. thx @joncstone #OOTT

https://www.independent.co.uk/climate-change/news/rishi-sunak-climate-change-fossil-fuels-b2007184.html

Rishi Sunak says he wants to encourage more fossil fuel drilling

Chancellor's position contradicts warnings by scientists

Jon Stone Policy Correspondent 1 day ago

Rishi Sunak has said he wants to encourage more investment in new fossil fuel drilling – potentially derailing the UK's climate targets.

Scientists said in the run-up to the COP26 climate summit last year that new fossil fuel exploitation is incompatible with reaching net zero in time.

But the chancellor said on Thursday that encouraging drilling under the North Sea would "support British jobs" and should get the green light.

"I want to make sure that people acknowledge that we should also exploit our domestic resources," he told a press conference.

"We have resources in the North Sea, and we want to encourage investment in that because we're going to need natural gas as part of our transition to getting to net zero.

"And in the process of getting from here to there, if we can get investment in the North Sea that supports British jobs, that's a good thing. So that has to be part of the mix as well."

The chancellor's comments come after the government invited oil and gas companies to help write a rulebook on whether new drilling complies with the UK's climate obligations.

Ministers have previously been accused by environmentalists of living in a "fantasy" for claiming new drilling is compatible with taking action to tackle the climate emergency.

Mr Sunak's comments conflict with a report by the International Energy Agency, commissioned by the UK's own Cop26 president Alok Sharma, which warned last year that new oil and gas production was incompatible with reaching net zero by 2050.

A separate domestic review carried out by the government, however, said that drilling could proceed subject to some conditions.

Those conditions are now set to be determined in part by the industry itself, which has been invited to develop a "checkpoint" that would decide which drilling projects could proceed.

The International Energy Agency's pathway to net zero by 2050, drawn up in May 2021, says that, under a balanced scenario, "there are no new oil and gas fields approved for development" after 2021.

Dan Tsubouchi @Energy_Tidbits · Dec 9, 2021

Time for #2022Predictions. My #1 is more #EnergyTransition #NetZero leaders come out of closet, have a #MacronMoment ie. have "transition" not self inflicted shortage so 2021 energy crisis isn't every year. A return to #EnergySecurity = #Oil #NatGas #LNG strong thru 2030. #OOTT twitter.com/Energy_Tidbits...

3 5

Dan Tsubouchi @Energy_Tidbits · Feb 4

Anyone else wonder why 9-pg single spaced Russia/China joint statement dumped on US for everything but is silent on #JCPOA? Is this another reason to think a JCPOA deal is near? #OOTT

en.kremlin.ru

Joint Statement of the Russian Federation and the People's Republic of China on the International...

3 2 2

Dan Tsubouchi @Energy_Tidbits · Feb 4

a couple of the local #Canmore coyotes out for a morning hunt. one of the Three Sisters mountains im the background. gloomy morning in the Rockies

7

Dan Tsubouchi @Energy_Tidbits · Feb 4

Would be a big validation to #Oil being stronger for longer if #SaudiAramco can pull off any significant equity issue to non-Saudi investors. Who would invest in long oil reserves if #PeakOilDemand was coming soon? Thx @summer_said @JBSteins #OOTT

> **Summer Said** @summer_said · Feb 4
>
> Exclusive: #Saudi #Aramco Looks to Sell $50 Billion Stake in Fresh Share Listing with @JBSteins #OOTT wsj.com/articles/saudi...

1 1

Dan Tsubouchi @Energy_Tidbits · Feb 4

"we acknowledge that #Oil and #NatGas will continue to meet the baseload of our energy demand for the foreseeable future""rapidly deploying #NatGas in our energy mix by increasing its share from the current 6% to 15% by 2030" says @HardeepSPuri. #OOTT

economictimes.indiatimes.com

India to double down on oil, gas exploration: Hardeep Singh Puri

India currently relies on imports to meet 85 per cent of its oil needs and 50 per cent of the natural gas requirement. This is because domestic ...

1 2

Dan Tsubouchi @Energy_Tidbits · Feb 4

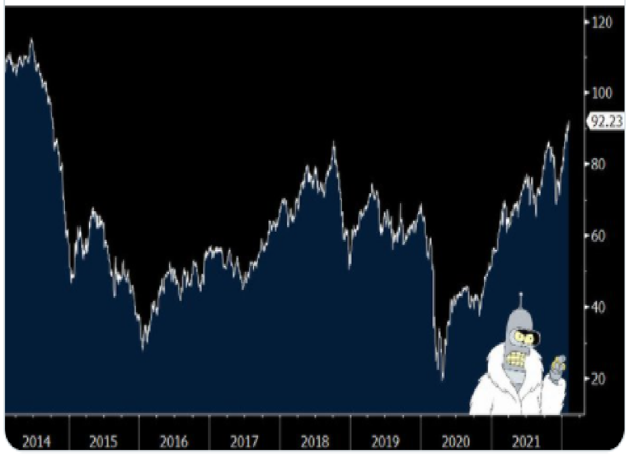
deleted my parade of atheletes tweets as my twitter was locked from CBC copyright action. thought it would be okay as i made sure the CBC logo was in, but not the case. regardless i am still very proud of @TeamCanada and am rooting for #TeamCanada 🍁 in every event.

1 4

Dan Tsubouchi @Energy_Tidbits · Feb 4

and countries reopening for travel including ones that were very restrictive like new zealand. enjoy your work @WillHares . #OOTT

> **Will Hares** @WillHares · Feb 4
>
> ➡️Brent oil trading above $92 per barrel
> ➡️Highest since Oct 2014
> ➡️OPEC+ shortfall vs monthly 400kbpd ceiling raises
> ➡️Low global inventories
> ➡️Demand at pre-pandemic levels
> ➡️RUS-UKR geopolitical risk
> #oott #opec #eft #oil

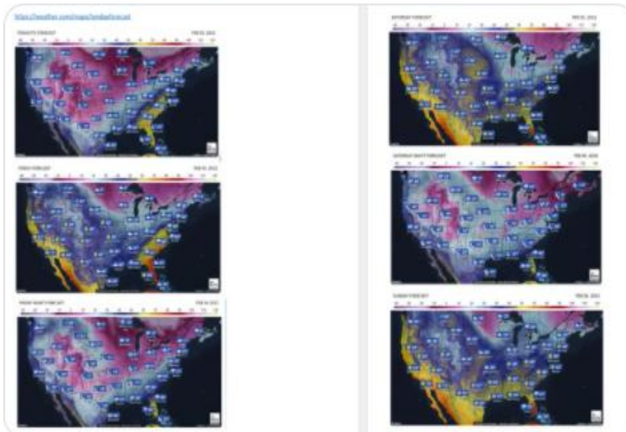


4

Dan Tsubouchi @Energy_Tidbits · Feb 3

Still well below freezing in Permian & Oklahoma for next 3 nights. warming in daytime. but should still expect temporary #Oil #NatGas production interruptions & delays in operations. #OOTT

weather.com/maps/tendayfor...



Dan Tsubouchi @Energy_Tidbits · Jan 31

Risk for temporary #Oil #NatGas production interruptions & delays in operations with below freezing expected in Permian & Oklahoma. #OOTT weather.com/maps/tendayfor...

2 4

Dan Tsubouchi @Energy_Tidbits · Feb 3

Re: #Shell's unplanned supply interruption at Prelude #LNG 0.47 bcf/d. In Q4 call, CFO Uhl "it was equipment failure that will take us some time to work thru and get back that on line and get that back on line safely". "some time" doesn't sound like in Q1? #OOTT

omments from Shell Q4 call Feb 3, 2022 hosted by C

up created transcript

le, we had an event in the fourth quarter. An electric
or wider operational issue. it was equipment failure
ne and get that back on line safely."

Dan Tsubouchi @Energy_Tidbits · Jan 7

#Shell's unplanned #LNG supply interruption at Prelude LNG 0.47 bcf/d is expected to remain shut until at least late-Feb as repairs continue according to people with knowledge of the matter, reports @SStapczynski. See SAF 12/26/21 Energy Tidbits re NOPSEMA 12/23 orde...

3

Dan Tsubouchi @Energy_Tidbits · Feb 3

SAF

"before the market will completely transition to a low carbon market, it will just be adding low carbon demand onto existing demand as well" "significant struggle" for supply to keep up to demand "for some to come" @VanBeurdenShell. #Oil #NatGas looks good for 2020s. #OOTT

ıp created transcript of comments from Shell Q4 call Feb 3, 2022 hosted by CEO van Beurden and CFO U

ıs in "*italics*" are SAF Group created transcript

rden: At 11 min mark. "*in years to come, we will find that we have to put real carbon constraints on the s we put out there and we have to find good ways and we are finding good ways to reform the demand t ng from a higher carbon demand to a lower carbon demand, while at the same time actually upgrading t well. That is what the energy challenge is all about for us.*" "*before the market will completely transition on market, it will just be adding low carbon demand onto existing demand as well*".

rden at 14 min mark. "*if you look at the overall liquids demand of course, you will see Martin it has large to where it was before the pandemic. I think the big point of course is not so much the demand recovery, how supply is lagging. In the meantime, of course, the industry has with capital discipline and also to pre resilience has been quite parsimonious with investments. as a result of this, we actually see a significant for supply to keep up with demand and I think that is going to be with us for some time to come.*"

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

1 2

Dan Tsubouchi @Energy_Tidbits · Feb 3

Trinity FPSO is 22,000 b/d processing capacity and storage capacity of 2 million barrels. Nigeria Block OML 108. #OOTT

sepcol.org/index.php/abou...

http://www.sepcol.org/index.php/about/oml-108

OML 108 Oil Block Overview

OML 108 - Overview

Since the company's inception in May 2004, Shebah Exploration & Production Company Limited (SEPCOL) has rapidly driven its growth by acquiring oil assets and using its strong in-house technical and operational expertise to grow production in a cost effective manner. Asides developing oil and gas business interests in other parts of Africa, within Nigeria, SEPCOL:

- Has a 40% interest in oil block OML 108.
- Currently bidding on acquisition of new oil and gas assets in Nigeria.
- Currently reviewing interest in farm-in to certain assets in Nigeria.
- The company is expecting to produce about 50,000bopd and about 300mmscf/day dry gas by year end 2019.

OML 108 - Background & Field Description

OML 108 (formerly OPL 74) was awarded to Express Petroleum and Gas Company in December 1990. Express assigned 40% interest to Conoco Energy Nigeria Limited as Technical advisor. Conoco relinquished its 40% stake in the block in 2004 and transferred it to Shebah Exploration & Production Company Limited same year. OML 108 covers an area of 750sqkm in water depth of 88ft (30m) in the western edge of the Niger Delta in shallow water offshore Nigeria, six miles south west of Chevron's Meren field but reaches water depth of 700ft (213m) on the southern portion of OML 108. The block is composed of oil producing Ukpokiti field, Kunza discovery and deeper pool prospects in the southern portion of the block. The Ukpokiti field comprising of 5 (five) oil wells and 1 injector wells. Two exploration wells (Kunza-1 and Kunza-2) drilled in the Kunza discovery intersected commercial volumes of gas and condensate and will form the basis for coming appraisal, development and exploration effort. OML 108 holds significant leads towards the southern part of the block.

OML 108 - Production Facilities

The FPSO Trinity Spirit serves and the primary production facility for the block and all production is processed and stored on the FPSO. The FPSO Independence was renamed FPSO Trinity Spirit. The FPSO has a processing capacity of 22,000 barrels per day and a storage capacity of 2 million barrels. A well test loop is available with a 6 inches line; these networks have their own risers to connect the FPSO from the seabed that is 80ft under the sea level. The crude processing facility consists of separators which handles a 3-stage separation of the crude. It also harbors an IWTS (injection water treatment system) for produced water treatment used for reservoir pressure maintenance via water injection.

OML 108 - Production and Reserves

- Over 3,000bopd for the year end 2014.
- Planned activities in place to increase the current oil production rate to 5,000 barrels per day before Q2 ending 2015.
- There are new reservoirs discovered in Ukpokiti field as well as ongoing appraisal of partially appraised reservoirs – currently integrated field studies ongoing for quantitative assessment of reserves and optimisation of field development plans.
- SEPCOL and JV Partner objective is to drive growth in production rate of oil and commercial gas production via Escravos gas pipeline and same time increase reserves.

BusinessDay @BusinessDayNg · Feb 3

FPSO Trinity owned by Shebah E&P, exploded and sunk today offshore Escravos, a few hours ago

#oilandgas #nigerdelta

1 2

Dan Tsubouchi @Energy_Tidbits · Feb 3

Will @Shell FID #LNGCanada Phase 2? It's 1 of 3 #LNG pre-FID options. Surely Shell's Integrated Gas "grow the business. selective investment in competitive LNG assets" doesn't stop at under construction? Be huge for 🇨🇦 Cdn #NatGas. See SAF 11/23 blog #OOTT safgroup.ca/news-insights/

1 1 6

Dan Tsubouchi @Energy_Tidbits · Feb 2

SAF

For those not near their laptop, @EIAgov weekly #Oil #Gasoline #Distillates inventory data as of Jan 28 just out. Prior to release, WTI was $87.85. #OOTT.

ir.eia.gov/wpsr/overview....

Inventory Jan 28: EIA, Bloomberg Survey Expectations

s)	EIA	Expectations
	-1.05	1.80
	2.12	2.00
	-2.41	-1.50
	-1.34	2.30

›mmercial so builds in impact of 1.9 mmb draw from SPR for

l in the oil data, Cushing had a draw of 1.17 mmb for Jan 28

Bloomberg

SAF Group

2

SAF

Dan Tsubouchi @Energy_Tidbits · Feb 1

Remember "exchanged views" in political speak means different views than @IEA. Japan has been clear that won't sacrifice energy security for reducing emissions. same view as per its Nov 9 call with @IEA. #OOTT

https://www.mofa.go.jp/press/release/press1e_000227.html

Video conference between Ms. Ono, Director General of Economic Affairs Bureau, Ministry of Foreign Affairs of Japan, and Dr. Birol, Executive Director of the International Energy Agency (IEA)

e-mail

November 9, 2021

Japanese

On November 9, Ms. ONO Hikariko, Director General of Economic Affairs Bureau, held a videoconference with Dr. Fatih Birol, Executive Director of the IEA.

1. At the outset, Ms. Ono expressed concern over the rapid surge in crude oil prices, which could hamper the global economic recovery from COVID-19. She stated that Japan is engaged in dialogues with oil-producing countries and would like to work closely with the IEA, which plays a central role in stabilizing the energy market.
2. In his response, Dr. Birol mentioned that he is closely watching the energy market including oil, and expressed the IEA's willingness to cooperate with member countries and oil-producing countries to work for stabilization of market. He also shared with Ms. Ono the IEA's analysis of the future energy market following the results of the OPEC Plus Ministerial Meeting held on November 4, 2021. He pointed out that the gap between supply and demand will continue to be tight in the short term, however, the supply and demand balance will improve around the turn of the year and the market will gradually regain stability.
   Furthermore, he underscored the need for additional investment to meet future demand, explaining that the demand for oil and natural gas will not drastically decrease even through our path towards transition to renewable energy. The two sides agreed to further strengthen cooperation to enhance energy security, including that of oil. Dr. Birol expressed his wish to visit Japan to exchange views with Japanese counterparts.
3. The two sides also exchanged views on acceleration of decarbonization efforts following COP26, and shared the importance on measures with pragmatic time frame based on individual circumstances that each countries face including its renewable energy potentials, while it is important to expand investment on renewable energy to achieve carbon neutral. In addition, the two sides frankly exchanged their views on Japan's funded initiative with the IEA for clean energy transition in resource producing countries, as well as on the Ministerial meeting scheduled to be held in February 2022.

METI, Japan @METI_JPN · Jan 31

On Jan 31, #meti_minister Hagiuda held a teleconference with Dr. Birol, Executive Director of the International Energy Agency (IEA), and exchanged views on the importance of both energy security and transitions, and agreed to cooperate with the IEA for the IEA Ministerial meeting

1 2 4

Dan Tsubouchi @Energy_Tidbits · Feb 1

1/6. Look for big change in messaging from @IEA Feb 2/3 ministerial meeting. Will be subtle change but reality check need to slow play #EnergyTransition ie. #Oil #NatGas needed for longer. Major #NetZero leaders don't want an EU #EnergyCrisis to last thru 2020s. #OOTT

2 7 18

Show this thread

Dan Tsubouchi @Energy_Tidbits · Feb 1

5/6. Japan says it again to @IEA on 01/31/22. "exchanged views on the importance of both energy security and transitions". Japan has been very clear energy security is the priority, not reducing emissions. Exchanged views means different views. #OOTT

On Jan 31, #meti_minister Hagiuda held a teleconference with Dr. Birol, Executive Director of the International Energy Agency (IEA), and exchanged views on the importance of both energy security and transitions, and agreed to cooperate with the IEA for the IEA Ministerial meeting

4:16 AM · Jan 31, 2022 · Twitter Web App

1 Retweet 4 Likes

https://twitter.com/fbirol/status/1488095733538594818

International Energy Agency Retweeted

Fatih Birol @fbirol

Great pleasure to speak with 🇯🇵 Minister Hagiuda of @METI_JPN today

We discussed how clean energy transitions need to be underpinned by market security & stability, both domestically and internationally.

Looking forward to further @IEA-🇯🇵 collaboration on these issues

METI, Japan @METI_JPN · Jan 31

On Jan 31, #meti_minister Hagiuda held a teleconference with Dr. Birol, Executive Director of the International Energy Agency (IEA), and exchanged views on the importance of both energy security and transitions, and agreed to cooperate with the IEA for the IEA Ministerial meeting

Dan Tsubouchi @Energy_Tidbits · Feb 1

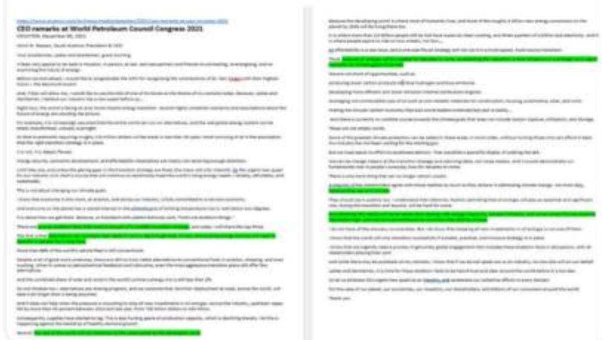
6/6.#NetZero leaders have to acknowledge need to change #EnergyTransition plans or risk EU #EnergyCrisis every yr. But will they actually make changes before too late for >2023 or just pray for favourable weather every year Big plus for #Oil #NatGas #LNG thru 2020s. #OOTT

Dan Tsubouchi
@Energy_Tidbits

Time for #2022Predictions. My #1 is more #EnergyTransition #NetZero leaders come out of closet, have a #MacronMoment ie. have "transition" not self inflicted shortage so 2021 energy crisis isn't every year. A return to #EnergySecurity = #Oil #NatGas #LNG strong thru 2030. #OOTT

Dan Tsubouchi @Energy_Tidbits · Dec 6, 2021

#Oil values to soar when they come out of the closet. "one more thing that can no longer remain unsaid. A majority of key stakeholders agree with these realities as much as they believe in addressing climate change. We know this, because they say so in private" @Aramco CEO. #OOTT twitter.com/Energy_Tidbits...



7:03 AM · Dec 9, 2021 · Twitter Web App

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Dan Tsubouchi @Energy_Tidbits · Feb 1

Sounds like #Biden prepared to make last minute concessions to get #JCPOA. "We are prepared to go back into the deal. It doesn't mean that every detail of the negotiation has been resolved from our side, but we are prepared to make those tough choices" US State Dept. #OOTT


Senior State Department Official On the JCPOA Talks

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Dan Tsubouchi @Energy_Tidbits · Feb 1 ···

can tell from the canada geese on the Elbow River that it's turned colder for a couple days in #Calgary. -19c right now. but it's been warm as the half of the ice on the river melted the last week or so

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Dan Tsubouchi @Energy_Tidbits · Jan 31

Clock ticking for other #LNG FIDs to get in queue. @PPouyanne wants next MZ trip to be force majeure lift & retart of Phase 1 LNG. Remember @TotalEnergies restart unlocks 5 bcfd of MZ LNG, not just Phase 1 of 1.7 bcfd. See SAF Apr 28/20 blog. safgroup.ca/news-insights/ #OOTT #NatGas

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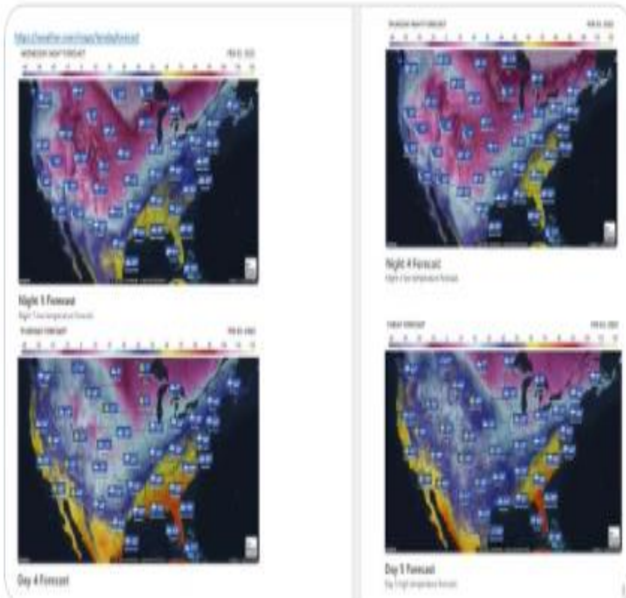
Dan Tsubouchi @Energy_Tidbits · Jan 31

Risk for temporary #Oil #NatGas production interruptions & delays in operations with below freezing expected in Permian & Oklahoma. #OOTT
weather.com/maps/tendayfor...



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SAF

Dan Tsubouchi @Energy_Tidbits · Jan 31

#OPEC+ "spare capacity is eroding really fast" "assessements we have now is that spare capacity among OPEC+ is about 2.5 million barrels" only KSA & UAE "who could immediately add production". Great support for #Oil as demand gets to preCovid. Thx @Amena_Bakr @sean_evers. #OOTT

reated transcript of excerpt from Gulf Intelligence podcast "Daily Energy Markets – Jan 31st", h
der & Managing Partner) and Amena Bakr (Deputy Bureau Chief & Chief OPEC Correspondent,
. https://soundcloud.com/user-846530307/podcast-daily-energy-markets-jan-31st

lics" are SAF Group created transcript

mark. Bakr "*the group don't feel that they can do much really at this point. Their spare capaci*
he assessments we have now is that spare capacity among OPEC+ is about 2.5 million barrels.
even if". Evers then jumps in "*Across all of OPEC+?*" Bakr "*All of OPEC+. and there are only a*
would say Saudi Arabia and the UAE who could immediately add production and that productio
The rest, its going to take some time to add these barrels to the market and keep it at sustain

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

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Dan Tsubouchi @Energy_Tidbits · Jan 31

SAF

Very bullish for both #NatGas & #LNG in 2020s. @IEA, absent "strong policies to curb demand growth", "gas supply adequacy could emerge as a concern for the medium term" due to LNG project delays, relatively small # of LNG FIDs & "a structural decline in upstream spending". #OOTT


ply has been put under pressure by outages, delays and slow pa

Blog Summary

rownfield LNG FIDs Now Needed To Fill New LNG Sup

ambique Chaos? How About LNG Canada Phase 2?

For Details, Please See The 7 Page Blog

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Dan Tsubouchi @Energy_Tidbits · Jan 30

ICYMI last night. China Caixin PMI for Jan 49.1 vs Dec 50.9 vs Est 50.0. Jan is lowest in 23 mths. Dipped negative for 4th time since Feb/20. #OOTT

Caixin China General Manufacturing PMI™

Manufacturing sector performance dampened by latest wave of COVID-19

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Dan Tsubouchi @Energy_Tidbits · Jan 30

Our weekly SAF Jan 30, 2022 Energy Tidbits memo is posted on our SAF Group website. This 48-pg energy research memo expands upon & covers more items than tweeted this week. See news/insights section of SAF website #Oil #OOTT #LNG #NatGas #EnergyTransition safgroup.ca/news-insights/

SAF GROUP

Energy Tidbits

Jan 30, 2022

Produced by: Dan Tsubouchi

Biden's Commitment Now Also Includes "Carefully Managing the Transition from Fossil Fuels to Clean Energy"

Welcome to new Energy Tidbits memo readers. We are continuing to add new readers to our Energy Tidbits memo, energy blogs and tweets. The focus and concept for the memo was set in 1999 with input from PMs, who were looking for research (both positive and negative items) that helped them shape their investment thesis to the energy space, and not just focusing on daily trading. Our priority was and still is to not just report on events, but also try to interpret and point out implications therefrom. The best example is our review of investor days, conferences and earnings calls focusing on sector developments that are relevant to the sector and not just a specific company results. Our target is to write on 48 to 50 weekends per year and to post by noon mountain time on Sunday.

This week's memo highlights:

1. Biden/von der Leyen joint statement included their "*commitment to accelerating and carefully managing the transition from fossil fuels to clean energy*". (Click Here)
2. Biden official on JCPOA "*We're in the ballpark of a possible deal. But again, I'm not going to put odds on this*". (Click Here)
3. Peak US Gulf of Mexico oil and natural gas production looks assured with Biden's need "*to take the time to make significant & long overdue programmatic reforms*" (Click Here)
4. BloombergNEF estimates global oil stockpiles deficit widened from 85.0 to 95.3 mmb vs 2017-2019 average. (Click Here)
5. Norway's wealth fund announced "*very good results in 2021*" but forgot to note its top performing sector was energy. (Click Here)
6. Please follow us on Twitter at [LINK] for breaking news that ultimately ends up in the weekly Energy Tidbits memo that doesn't get posted until Sunday noon MT.
7. For new readers to our Energy Tidbits and our blogs, you will need to sign up at our blog sign up to receive future Energy Tidbits memos. The sign up is available at [LINK].

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