Energy Tidbits

Trans Mountain Calls for Line-Fill in Apr/May Points to June Start for 590,000 b/d TMX Expansion

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

billion cubic feet

Year and month	Gross withdrawals	Marketed production	NGPL production[a]	Dry gas production[b]	Supplemental gaseous fuels[c]	Net imports	Net storage withdrawals[d]	Balancing item[e]	Consumption[f]
2018 total	**37,326**	**33,009**	**2,235**	**30,774**	**69**	**-719**	**314**	**-300**	**30,139**
2019 total	**40,780**	**36,447**	**2,548**	**33,899**	**61**	**-1,916**	**-503**	**-408**	**31,132**
2020 total	**40,730**	**36,521**	**2,710**	**33,811**	**63**	**-2,734**	**-180**	**-357**	**30,603**
2021									
January	3,504	3,106	234	2,872	5	-279	719	18	3,335
February	2,939	2,597	195	2,402	5	-152	795	46	3,096
March	3,510	3,136	236	2,900	6	-357	64	27	2,640
April	3,428	3,059	230	2,829	5	-356	-180	-27	2,272
May	3,525	3,158	238	2,921	6	-373	-423	-13	2,116
June	3,390	3,045	229	2,816	5	-331	-254	6	2,242
July	3,509	3,177	239	2,938	6	-338	-175	-12	2,418
August	3,535	3,186	240	2,946	6	-343	-164	-9	2,436
September	3,441	3,104	233	2,871	5	-315	-398	-25	2,138
October	3,613	3,258	245	3,013	6	-317	-368	-75	2,259
November	3,564	3,189	240	2,949	6	-315	137	-92	2,685
December	3,720	3,323	250	3,073	6	-368	330	-33	3,008
Total	**41,677**	**37,338**	**2,809**	**34,529**	**66**	**-3,845**	**83**	**-188**	**30,646**
2022									
January	3,628	3,235	252	2,983	6	-315	1,013	-95	3,593
February	3,266	2,914	227	2,687	5	-288	673	-17	3,059
March	3,663	3,282	256	3,026	6	-380	171	-43	2,781
April	3,568	3,199	250	2,950	6	-342	-220	-33	2,360
May	3,695	3,332	260	3,072	6	-386	-412	-39	2,241
June	3,565	3,232	252	2,980	6	-325	-332	-13	2,317
July	3,736	3,375	263	3,112	6	-303	-187	-46	2,583
August	3,730	3,392	265	3,128	6	-322	-213	-39	2,559
September	3,669	3,330	260	3,071	6	-293	-446	-50	2,288
October	3,814	3,438	268	3,170	6	-315	-432	-66	2,364
November	3,712	3,327	259	3,067	6	-308	78	-77	2,767
December	3,755	3,370	263	3,107	6	-304	588	-21	3,376
Total	**43,802**	**39,428**	**3,075**	**36,353**	**73**	**-3,880**	**281**	**-539**	**32,288**
2023									
January	[E]3,820	[E]3,429	270	[E]3,159	7	-333	[R]456	[R]17	[R]3,305
February	[E]3,456	[E]3,103	247	[E]2,856	6	-331	399	18	2,947
March	[E]3,858	[E]3,475	286	[E]3,189	6	-401	224	[R]-6	[R]3,012
April	[E]3,729	[E]3,362	283	[E]3,079	5	-400	[R]-269	5	2,421
May	[E]3,869	[E]3,500	289	[E]3,210	6	-422	-452	[R]-27	[R]2,315
June	[E]3,720	[E]3,375	278	[E]3,098	4	-376	[R]-344	[R]-22	[R]2,360
July	[E]3,827	[E]3,495	290	[E]3,205	6	-378	-134	[R]-34	2,666
August	[E]3,850	[E]3,534	294	[E]3,240	5	-388	-133	-50	2,674
September	[E]3,761	[E]3,426	291	[E]3,135	3	-396	-323	[R]-46	[R]2,373
October	[E]3,909	[E]3,537	302	[E]3,235	3	[R]-421	-321	[R]-58	[R]2,438
November	[RE]3,841	[RE]3,469	292	[RE]3,177	5	-403	[R]65	-21	[R]2,823
December	[E]3,993	[E]3,592	292	[E]3,300	6	-432	284	11	3,169
Total	**[E]45,633**	**[E]41,296**	**3,413**	**[E]37,883**	**63**	**-4,682**	**-548**	**-213**	**32,504**

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

[b] Equal to marketed production minus NGPL production.

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

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

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

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

[R] Revised data.

[RE] Revised estimated data.

[E] Estimated data.

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

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

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

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

	2023							
	Total	December	November	October	September	August	July	June
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	1,026,097	111,869	89,446	66,936	76,619	68,390	76,567	75,320
Mexico	2,241,553	174,602	R179,002	R200,466	202,402	213,050	208,625	204,115
Total pipeline exports	**3,267,651**	**286,471**	**R268,448**	**R267,402**	**279,021**	**281,440**	**285,193**	**279,435**
LNG								
Exports								
By vessel								
Antigua and Barbuda	47	6	4	7	7	5	4	3
Argentina	76,921	0	0	0	0	0	11,162	22,663
Bahamas	499	32	34	34	51	47	47	45
Bangladesh	24,147	3,257	3,240	0	0	7,095	0	3,624
Barbados	11	11	0	0	0	0	0	0
Belgium	97,017	14,272	10,288	20,775	R13,697	3,363	0	6,953
Brazil	38,595	3,708	3,563	3,720	6,561	3,287	0	8,628
Chile	31,217	0	0	0	0	3,065	7,144	4,011
China	173,247	13,949	25,601	18,013	10,222	14,252	R35,337	20,261
Colombia	32,014	7,162	1,844	6,689	10,322	3,149	0	0
Croatia	55,439	3,050	9,995	0	10,542	3,023	10,121	0
Dominican Republic	73,761	3,177	8,647	8,826	6,734	10,055	6,076	7,443
El Salvador	1	0	0	0	0	0	1	0
Finland	38,858	2,762	3,335	R0	7,057	6,630	3,666	1,622
France	492,696	40,692	58,907	53,559	R32,016	34,332	20,589	45,569
Germany	204,605	19,439	14,382	17,901	17,228	R20,709	17,245	15,769
Greece	39,426	8,287	0	0	1,968	4,700	0	2,924
Haiti	113	13	8	8	10	9	8	6
India	164,325	17,062	7,441	13,698	24,452	13,713	20,494	14,488
Indonesia	3,157	0	0	0	489	766	1,097	0
Israel	0	0	0	0	0	0	0	0
Italy	197,513	21,283	R23,786	6,850	22,094	21,519	13,923	13,959
Jamaica	9,048	480	122	1,831	4,038	3	1,443	3
Japan	310,190	27,461	24,896	24,357	R33,375	R31,302	R44,016	28,031
Jordan	3,282	0	0	0	0	0	3,282	0
Kuwait	35,185	0	0	0	6,636	3,289	7,081	10,670
Lithuania	55,332	3,409	0	R6,476	R10,666	7,005	3,375	3,629
Malta	2,592	0	0	0	0	0	0	0
Mexico	13,661	3,660	0	1,776	0	0	1,954	0
Netherlands	588,557	48,658	36,150	49,701	39,745	R53,596	53,296	45,866
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	3,141	3,141	0	0	0	0	0	0
Panama	19,565	328	3,530	0	3,196	0	3,295	0
Philippines	6,823	0	3,445	3,378	0	0	0	0
Poland	139,635	10,862	14,500	14,213	14,121	10,550	3,635	18,046
Portugal	73,158	2,945	3,204	7,125	6,437	6,660	9,845	3,194
Singapore	23,320	0	0	3,279	6,649	3,384	0	10,009
South Korea	275,779	35,187	26,140	28,224	24,112	34,932	16,462	17,044
Spain	269,202	15,629	17,280	49,792	9,933	20,023	34,106	12,274
Taiwan	104,075	6,655	3,104	6,686	13,201	14,117	13,090	6,848
Thailand	59,477	3,818	7,581	7,538	0	14,793	7,463	4,242
Turkiye	156,403	42,304	R27,560	4,507	3,531	0	0	0
United Kingdom	450,694	60,209	47,642	25,414	7,464	R3,655	0	0
By truck								
Canada	85	7	7	0	16	8	8	17
Mexico	604	20	R26	27	35	19	25	34
Total LNG exports	**4,343,415**	**422,935**	**R386,262**	**384,403**	**346,604**	**353,059**	**349,292**	**327,872**
CNG								
Canada	1	0	0	0	0	0	0	0
Total CNG exports	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total exports	**7,611,067**	**709,406**	**R654,710**	**R651,805**	**625,625**	**634,499**	**634,485**	**607,307**

See footnotes at end of table.

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

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

	2023					2022		
	May	April	March	February	January	Total	December	November
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	77,984	75,674	106,178	95,691	105,422	959,630	98,718	90,179
Mexico	193,623	169,179	177,653	152,807	166,028	2,078,627	158,638	160,986
Total pipeline exports	**271,608**	**244,853**	**283,832**	**248,498**	**271,450**	**3,038,257**	**257,355**	**251,165**
LNG								
Exports								
By vessel								
Antigua and Barbuda	3	3	2	2	4	22	1	2
Argentina	26,930	11,536	2,343	2,287	0	66,939	0	0
Bahamas	45	43	53	27	42	489	42	35
Bangladesh	3,561	0	0	0	3,369	12,663	0	0
Barbados	0	0	0	0	0	93	0	1
Belgium	3,809	4,844	8,053	7,322	3,640	80,245	3,274	0
Brazil	4,196	3,598	1,334	0	0	71,998	0	0
Chile	6,419	0	7,271	0	3,307	30,131	0	0
China	6,593	3,426	5,132	2,565	17,896	96,659	6,992	17,308
Colombia	2,847	0	0	0	0	5,703	0	0
Croatia	2,932	3,163	3,694	6,006	2,913	77,286	6,204	5,122
Dominican Republic	7,871	6,901	876	3,514	3,643	50,824	6,644	0
El Salvador	0	0	0	0	0	0	0	0
Finland	6,935	0	6,850	0	0	329	329	0
France	51,658	53,211	28,581	39,457	34,124	571,399	38,311	50,655
Germany	16,002	18,546	24,841	8,229	14,314	7,113	7,112	1
Greece	4,498	3,905	3,156	6,781	3,207	69,031	2,869	421
Haiti	12	11	8	11	8	115	9	0
India	7,140	14,585	10,230	14,064	6,956	122,518	14,139	10,138
Indonesia	0	0	0	0	805	6,579	3,256	505
Israel	0	0	0	0	0	0	0	0
Italy	18,542	17,378	13,699	17,555	R6,925	116,034	6,992	3,205
Jamaica	289	31	540	161	107	1,516	147	137
Japan	R31,208	13,687	20,102	14,058	17,696	209,220	20,535	24,396
Jordan	0	0	0	0	0	0	0	0
Kuwait	3,802	3,707	0	0	0	57,018	0	0
Lithuania	7,048	3,412	3,599	0	6,713	77,212	3,281	3,708
Malta	0	0	0	0	2,592	5,273	0	2,928
Mexico	0	0	3,051	0	3,219	3,832	539	0
Netherlands	R64,538	60,234	61,017	39,301	36,453	378,329	39,893	20,645
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	0	0	0	0	3,074	0	0
Panama	3,289	0	3,209	0	2,718	13,759	249	3,833
Philippines	0	0	0	0	0	0	0	0
Poland	17,422	7,165	7,236	10,347	11,538	127,404	13,885	3,453
Portugal	10,424	4,237	6,133	6,138	6,816	69,583	10,025	3,732
Singapore	0	0	0	0	0	22,980	0	0
South Korea	10,958	24,734	10,807	22,672	24,507	292,732	24,700	14,069
Spain	12,266	13,680	38,096	32,138	13,987	426,657	33,847	26,445
Taiwan	10,262	9,774	10,311	6,557	3,471	106,738	9,203	3,592
Thailand	0	4,225	4,249	1,829	3,738	25,988	0	0
Turkiye	0	13,908	11,866	13,444	R39,283	192,067	17,979	31,430
United Kingdom	R25,242	75,836	70,499	71,702	63,032	464,462	69,332	76,693
By truck								
Canada	7	7	7	0	0	76	8	0
Mexico	26	58	96	106	133	1,552	160	153
Total LNG exports	**366,774**	**375,843**	**366,941**	**326,275**	**337,155**	**3,865,643**	**339,960**	**302,608**
CNG								
Canada	0	0	*	*	*	2	0	*
Total CNG exports	**0**	**0**	*****	*****	*****	**2**	**0**	*****
Total exports	**638,382**	**620,697**	**650,773**	**574,773**	**608,605**	**6,903,902**	**597,316**	**553,774**

See footnotes at end of table.

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

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

	2022							
	October	September	August	July	June	May	April	March
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	72,738	61,926	75,220	69,774	70,105	79,214	80,475	105,074
Mexico	171,766	169,159	182,596	189,652	182,995	186,003	176,447	169,885
Total pipeline exports	**244,505**	**231,086**	**257,816**	**259,426**	**253,100**	**265,217**	**256,922**	**274,958**
LNG								
Exports								
By vessel								
Antigua and Barbuda	2	3	2	2	3	2	3	2
Argentina	0	0	2,202	9,448	25,246	20,111	9,933	0
Bahamas	40	43	53	45	47	42	34	43
Bangladesh	0	0	0	0	0	3,346	0	3,421
Barbados	0	0	0	0	0	0	0	34
Belgium	7,190	9,165	3,589	0	7,023	3,441	7,341	17,743
Brazil	3,439	0	10,542	5,192	3,857	15,303	3,448	2,236
Chile	0	3,365	0	6,917	0	9,943	3,530	3,214
China	22,598	10,275	10,272	784	7,329	0	10,217	7,527
Colombia	3,699	0	606	0	912	0	0	0
Croatia	2,922	9,073	7,824	4,600	7,925	8,543	6,763	3,358
Dominican Republic	3,469	3,196	3,357	6,532	5,838	4,964	3,645	6,530
El Salvador	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0
France	41,959	57,943	33,885	53,443	37,564	47,150	56,343	64,415
Germany	0	0	0	0	0	0	0	0
Greece	4,424	0	10,763	12,922	9,633	12,650	1,336	4,116
Haiti	0	8	11	8	13	9	11	10
India	7,005	10,528	10,265	13,902	10,653	7,152	14,223	10,438
Indonesia	625	509	967	0	0	0	0	0
Israel	0	0	0	0	0	0	0	0
Italy	0	8,355	15,462	9,914	7,137	21,696	15,519	7,088
Jamaica	144	240	110	121	48	144	135	92
Japan	10,684	7,005	20,156	18,189	21,561	24,024	13,231	17,697
Jordan	0	0	0	0	0	0	0	0
Kuwait	3,299	7,038	6,415	5,382	8,105	14,204	7,298	0
Lithuania	7,072	3,541	7,579	7,947	6,729	11,237	13,770	5,700
Malta	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	3,292	0	0	0
Netherlands	39,703	30,924	50,020	32,637	34,420	28,902	28,395	24,922
Nicaragua	0	0	0	0	0	0	0	0
Pakistan	0	0	0	0	0	0	3,074	0
Panama	0	0	0	0	623	1,192	1,536	0
Philippines	0	0	0	0	0	0	0	0
Poland	7,095	16,917	6,885	17,780	14,282	18,224	13,882	3,831
Portugal	7,005	5,806	3,202	6,412	5,582	3,888	6,632	10,728
Singapore	6,628	0	0	6,275	3,352	0	0	6,725
South Korea	38,844	19,736	36,033	34,342	25,054	17,538	13,813	19,289
Spain	26,369	21,263	26,140	34,396	29,639	40,337	40,259	59,224
Taiwan	9,041	9,753	8,901	9,353	6,892	15,975	9,541	12,161
Thailand	0	3,673	3,607	0	6,920	3,419	0	0
Turkiye	10,333	5,458	0	0	7,542	7,281	6,637	16,629
United Kingdom	46,040	51,467	21,263	3,797	3,326	10,608	39,775	56,799
By truck								
Canada	19	0	0	0	8	8	15	0
Mexico	175	94	103	76	105	115	122	144
Total LNG exports	**309,823**	**295,379**	**300,215**	**300,415**	**300,659**	**351,448**	**330,463**	**364,116**
CNG								
Canada	1	*	*	1	*	0	0	*
Total CNG exports	**1**	*	*	**1**	*	**0**	**0**	*
Total exports	**554,328**	**526,465**	**558,031**	**559,842**	**553,760**	**616,665**	**587,385**	**639,074**

See footnotes at end of table.

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

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

	2022							2021
	February	January	Total	December	November	October	September	August
Exports								
Volume (million cubic feet)								
Pipeline								
Canada	74,630	81,577	937,124	108,568	85,136	62,464	72,023	71,586
Mexico	155,032	175,467	2,154,457	166,956	165,449	184,472	178,746	193,710
Total pipeline exports	**229,662**	**257,045**	**3,091,580**	**275,524**	**250,585**	**246,936**	**250,769**	**265,296**
LNG								
Exports								
By vessel								
Antigua and Barbuda	0	2	8	3	2	0	3	0
Argentina	0	0	83,449	2,077	0	0	1,950	14,363
Bahamas	31	34	486	36	34	36	43	56
Bangladesh	5,896	0	37,734	0	0	0	3,276	7,085
Barbados	31	28	297	34	27	25	33	27
Belgium	7,691	13,786	5,584	0	0	0	0	0
Brazil	10,660	17,322	307,714	24,246	10,715	40,769	38,282	34,204
Chile	0	3,162	121,881	2,938	2,956	6,364	7,929	16,262
China	3,357	0	453,304	17,050	50,228	42,202	48,584	51,662
Colombia	0	486	2,247	0	0	0	436	919
Croatia	5,870	9,084	36,133	3,117	9,416	0	0	2,980
Dominican Republic	0	6,647	53,095	5,969	2,780	5,619	0	5,901
El Salvador	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0
France	39,646	50,084	170,780	33,892	10,021	9,333	6,578	7,111
Germany	0	0	0	0	0	0	0	0
Greece	8,094	1,802	39,708	5,305	7,629	1,515	799	3,607
Haiti	16	20	137	4	8	17	10	24
India	7,210	6,866	196,218	3,203	14,807	10,548	23,941	20,592
Indonesia	717	0	3,269	1,218	456	477	1,118	0
Israel	0	0	8,906	0	0	0	2,855	0
Italy	13,629	7,037	34,210	0	0	0	0	3,401
Jamaica	111	86	25,276	113	715	1,858	2,931	2,907
Japan	10,214	21,527	354,948	24,297	33,947	37,666	10,290	19,979
Jordan	0	0	0	0	0	0	0	0
Kuwait	5,277	0	34,476	0	0	6,193	10,333	3,298
Lithuania	3,131	3,518	30,919	0	0	0	3,282	1,677
Malta	2,345	0	5,427	0	0	0	2,498	0
Mexico	0	0	15,200	0	0	1,088	0	0
Netherlands	31,591	16,279	174,339	23,354	8,829	17,157	10,424	7,347
Nicaragua	0	0	1	0	0	0	0	0
Pakistan	0	0	45,818	0	2,490	3,138	9,642	3,319
Panama	3,069	3,255	8,436	0	0	911	0	1,390
Philippines	0	0	0	0	0	0	0	0
Poland	7,475	3,695	56,320	7,159	7,068	3,270	0	0
Portugal	3,703	2,868	65,865	9,630	5,380	10,459	3,696	6,382
Singapore	0	0	20,918	0	3,728	0	0	0
South Korea	27,489	21,824	453,483	38,201	30,787	33,836	31,375	50,101
Spain	39,359	49,379	215,062	32,579	22,821	35,638	31,274	23,068
Taiwan	6,115	6,211	99,350	12,034	3,404	7,123	5,789	6,728
Thailand	4,880	3,490	14,548	0	0	0	0	3,707
Turkiye	43,697	45,081	188,849	38,420	47,330	19,385	24,176	0
United Kingdom	25,301	60,060	195,046	60,315	30,648	3,302	3,099	0
By truck								
Canada	4	13	128	20	8	8	19	18
Mexico	157	148	1,250	148	160	182	150	147
Total LNG exports	**316,766**	**353,791**	**3,560,818**	**345,363**	**306,397**	**298,119**	**284,813**	**298,262**
CNG								
Canada	0	0	211	0	0	0	0	14
Total CNG exports	**0**	**0**	**211**	**0**	**0**	**0**	**0**	**14**
Total exports	**546,428**	**610,836**	**6,652,609**	**620,886**	**556,982**	**545,055**	**535,583**	**563,572**

See footnotes at end of table.

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

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

	2021						
	July	June	May	April	March	February	January
Exports							
Volume (million cubic feet)							
Pipeline							
Canada	68,264	69,528	70,561	74,567	91,301	78,198	84,927
Mexico	197,623	198,242	192,549	182,918	183,051	137,381	173,360
Total pipeline exports	**265,887**	**267,770**	**263,110**	**257,485**	**274,352**	**215,579**	**258,287**
LNG							
Exports							
By vessel							
Antigua and Barbuda	0	0	0	0	0	0	0
Argentina	22,798	19,312	16,226	4,485	2,238	0	0
Bahamas	46	48	45	46	39	29	28
Bangladesh	0	3,493	6,948	10,219	3,566	0	3,148
Barbados	31	22	19	30	14	19	17
Belgium	0	0	2,100	0	3,484	0	0
Brazil	39,637	32,293	19,726	11,615	21,977	13,118	21,132
Chile	19,913	0	17,598	10,293	21,320	6,524	9,784
China	42,222	42,319	37,731	50,474	28,476	3,415	38,940
Colombia	0	0	0	892	0	0	0
Croatia	3,299	2,923	3,364	3,666	7,367	0	0
Dominican Republic	1,806	4,670	5,283	2,905	5,577	5,689	6,895
El Salvador	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France	0	3,683	11,926	36,120	33,678	14,851	3,587
Germany	0	0	0	0	0	0	0
Greece	6,651	0	6,796	0	6,805	0	600
Haiti	8	18	12	3	10	11	12
India	13,090	16,503	28,259	13,752	17,381	13,776	20,367
Indonesia	0	0	0	0	0	0	0
Israel	0	0	0	3,225	2,826	0	0
Italy	6,826	3,425	2,923	6,896	10,739	0	0
Jamaica	0	2,927	2,925	2,370	2,458	2,365	3,708
Japan	24,895	39,783	25,058	28,756	27,673	18,271	64,331
Jordan	0	0	0	0	0	0	0
Kuwait	0	7,126	0	3,705	3,821	0	0
Lithuania	6,469	3,285	3,049	3,078	3,228	6,851	0
Malta	0	0	0	2,928	0	0	0
Mexico	758	0	0	0	0	13,354	0
Netherlands	10,597	3,030	26,611	17,060	24,204	22,777	2,949
Nicaragua	1	0	0	0	0	0	0
Pakistan	13,428	3,376	0	3,323	3,421	0	3,682
Panama	0	0	2,341	0	3,279	0	516
Philippines	0	0	0	0	0	0	0
Poland	6,619	10,635	3,581	7,382	3,507	7,099	0
Portugal	3,296	5,538	10,765	7,358	0	3,360	0
Singapore	3,449	0	3,089	3,660	3,303	0	3,688
South Korea	39,314	55,918	46,033	21,683	32,203	18,094	55,936
Spain	8,630	7,833	5,234	22,974	13,900	3,733	7,377
Taiwan	20,653	3,097	10,157	6,594	13,450	0	10,319
Thailand	0	0	3,453	7,388	0	0	0
Turkiye	5,591	0	3,017	0	3,619	20,652	26,659
United Kingdom	0	0	10,586	13,877	17,440	34,343	21,436
By truck							
Canada	16	7	18	15	0	0	0
Mexico	97	105	48	48	19	63	83
Total LNG exports	**300,143**	**271,368**	**314,922**	**306,818**	**321,023**	**208,394**	**305,196**
CNG							
Canada	16	27	25	29	36	32	32
Total CNG exports	**16**	**27**	**25**	**29**	**36**	**32**	**32**
Total exports	**566,046**	**539,165**	**578,056**	**564,333**	**595,411**	**424,004**	**563,515**

See footnotes at end of table.

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

million cubic feet

Year and month	Alaska	Arkansas	California	Colorado	Kansas	Louisiana	Montana	New Mexico	North Dakota	Ohio
2018 total	**341,315**	**589,985**	**202,617**	**1,847,402**	**201,391**	**2,832,404**	**43,530**	**1,493,082**	**706,552**	**2,403,382**
2019 total	**329,361**	**524,757**	**196,823**	**1,986,916**	**183,087**	**3,212,318**	**43,534**	**1,769,086**	**850,826**	**2,651,631**
2020 total	**339,337**	**481,205**	**155,979**	**1,996,740**	**163,362**	**3,205,574**	**38,191**	**1,965,533**	**887,445**	**2,389,629**
2021										
January	31,667	39,288	11,467	160,766	12,900	277,421	3,292	173,924	83,195	193,017
February	28,365	30,185	10,352	143,192	10,142	223,272	2,860	144,784	70,130	174,338
March	31,483	42,468	11,434	157,254	13,251	283,012	3,300	180,642	83,245	193,017
April	29,514	37,756	11,121	156,092	12,830	273,644	3,078	178,897	82,920	185,344
May	29,005	38,563	12,342	163,746	13,073	283,573	3,329	187,958	85,321	191,522
June	27,715	36,921	11,209	155,104	12,711	276,148	2,975	184,699	82,521	185,344
July	26,280	38,047	12,141	161,273	13,227	299,944	3,321	195,871	79,978	189,619
August	27,864	37,755	11,512	159,501	13,227	292,795	3,343	199,330	84,253	189,619
September	28,534	36,527	11,202	154,695	12,770	290,609	3,286	194,265	85,061	183,502
October	30,458	37,648	11,298	162,706	13,227	307,739	3,462	200,454	87,534	199,954
November	30,735	36,102	10,925	156,654	12,711	310,407	3,297	195,247	87,017	193,503
December	33,039	37,023	11,031	159,277	12,918	325,203	3,176	201,095	87,918	199,954
Total	**354,660**	**448,283**	**136,034**	**1,890,260**	**152,986**	**3,443,767**	**38,719**	**2,237,165**	**999,094**	**2,278,731**
2022										
January	32,865	36,087	11,347	155,786	12,478	318,772	3,119	199,405	81,490	190,930
February	30,014	32,336	9,814	141,557	11,122	290,031	2,977	184,452	75,867	172,453
March	32,473	36,319	11,603	159,101	12,465	319,562	3,370	218,272	88,106	190,930
April	30,910	35,043	11,384	153,816	12,347	324,537	3,175	216,047	68,665	181,993
May	31,677	35,781	11,593	154,313	12,826	348,337	3,170	222,902	81,340	188,060
June	28,644	34,299	11,296	149,081	12,302	336,152	3,208	215,334	86,437	181,993
July	29,654	35,096	11,734	153,856	12,659	348,334	3,367	228,003	90,288	193,328
August	29,380	35,394	12,177	155,140	12,814	351,777	3,544	229,728	89,688	193,328
September	29,288	34,211	11,260	151,515	11,854	348,817	3,491	231,482	90,550	187,092
October	31,122	35,112	11,520	156,992	13,008	365,742	3,560	250,312	93,103	190,335
November	30,934	33,568	11,095	151,304	12,206	357,021	3,266	239,821	85,482	184,195
December	36,181	32,951	11,396	150,558	11,764	355,708	2,461	251,472	76,605	190,335
Total	**373,141**	**416,196**	**136,220**	**1,833,019**	**147,846**	**4,064,791**	**38,709**	**2,687,231**	**1,007,621**	**2,244,971**
2023										
January	33,391	E34,788	E11,055	E151,849	E11,783	E363,863	E3,538	E254,905	E83,384	E198,189
February	30,726	E31,085	E10,042	E135,238	E10,528	E352,464	E3,233	E233,411	E80,766	E174,917
March	32,676	E34,429	E10,900	E150,138	E11,441	E370,158	E3,565	E268,590	E88,736	E199,571
April	31,313	E32,911	E10,652	E146,856	E11,228	E363,538	E3,475	E259,515	E88,066	E187,566
May	31,288	E33,689	E11,243	E152,690	E11,555	E379,548	E3,577	E263,626	E92,326	E191,104
June	28,991	E32,280	E10,795	E149,138	E10,817	E345,747	E3,469	E252,650	E92,129	E179,766
July	28,478	E33,094	E11,217	E155,584	E10,985	E363,583	E3,551	E264,909	E96,906	E189,040
August	26,756	E32,973	E11,217	E157,964	E11,293	E365,347	E3,654	E270,933	E97,655	E195,216
September	28,784	E31,874	E10,827	E152,177	E10,902	E351,720	E3,535	E265,057	E98,252	E188,594
October	31,535	RE32,602	RE10,908	RE157,416	RE11,305	RE360,678	RE3,579	RE271,482	RE100,209	RE186,975
November	30,734	RE31,378	RE10,293	RE154,364	RE10,875	RE344,097	RE3,388	RE271,010	RE98,295	RE185,708
December	33,356	E32,091	E10,659	E160,553	E11,159	E346,030	E3,650	E289,093	E103,459	E186,781
Total	**368,027**	**E393,193**	**E129,808**	**E1,823,967**	**E133,869**	**E4,306,772**	**E42,215**	**E3,165,181**	**E1,120,183**	**E2,263,426**

See footnotes at end of table.

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

million cubic feet – continued

Year and month	Oklahoma	Pennsylvania	Texas	Utah	West Virginia	Wyoming	Other states	Federal Gulf of Mexico	U.S. total
2018 total	**2,875,787**	**6,264,832**	**8,041,010**	**295,826**	**1,771,698**	**1,637,517**	**485,675**	**974,863**	**33,008,867**
2019 total	**3,036,052**	**6,896,792**	**9,378,489**	**271,808**	**2,155,214**	**1,488,854**	**456,024**	**1,015,343**	**36,446,918**
2020 total	**2,673,207**	**7,168,902**	**9,813,035**	**241,965**	**2,567,990**	**1,206,122**	**435,117**	**791,491**	**36,520,826**
2021									
January	216,559	652,283	799,384	19,392	226,357	97,700	35,166	71,804	3,105,581
February	162,358	585,293	610,705	18,126	198,404	89,387	31,295	64,043	2,597,230
March	217,547	649,393	828,055	20,404	217,550	95,201	34,611	74,201	3,136,068
April	211,950	620,194	823,807	19,783	215,237	92,348	34,385	69,762	3,058,663
May	218,136	635,492	847,314	20,313	226,230	94,307	35,810	72,051	3,158,085
June	209,019	616,203	817,582	19,522	220,743	90,244	29,181	67,424	3,045,264
July	219,906	638,130	860,680	20,601	221,714	93,624	30,406	71,746	3,176,507
August	218,176	646,670	862,398	20,347	234,964	89,735	33,021	61,409	3,185,920
September	216,136	627,305	858,752	19,928	224,034	92,092	30,825	34,553	3,104,078
October	222,128	651,674	886,988	20,460	231,720	93,092	37,901	60,037	3,258,481
November	220,076	646,383	856,488	20,004	221,495	90,106	32,243	65,566	3,188,958
December	223,437	678,051	897,003	20,541	236,698	91,580	37,047	68,035	3,323,025
Total	**2,555,430**	**7,647,068**	**9,949,156**	**239,422**	**2,675,145**	**1,109,416**	**401,892**	**780,632**	**37,337,860**
2022									
January	216,347	657,613	878,743	20,719	234,795	89,680	30,986	64,105	3,235,266
February	196,621	577,251	795,295	18,516	209,707	78,589	31,234	56,642	2,914,480
March	225,203	634,328	903,364	21,502	239,344	87,991	34,249	64,273	3,282,454
April	226,464	614,569	880,176	21,243	235,580	86,485	31,383	65,402	3,199,218
May	235,497	638,527	918,979	22,306	247,179	85,606	32,053	61,895	3,332,041
June	231,202	616,619	881,753	21,786	240,568	85,970	31,592	64,090	3,232,326
July	239,209	644,039	920,414	22,646	251,625	89,886	34,763	66,176	3,375,077
August	238,619	635,404	937,041	23,549	255,603	87,801	33,420	67,976	3,392,383
September	238,112	618,364	925,985	21,849	245,734	83,339	32,595	64,875	3,330,414
October	245,755	637,050	941,968	22,103	251,647	88,939	33,226	66,250	3,437,743
November	234,562	613,000	910,587	21,297	255,298	85,621	32,901	64,414	3,326,572
December	236,429	624,415	934,211	22,675	253,533	82,730	32,644	64,307	3,370,376
Total	**2,764,019**	**7,511,179**	**10,828,515**	**260,192**	**2,920,613**	**1,032,634**	**391,046**	**770,406**	**39,428,350**
2023									
January	[E]241,437	[E]646,645	[E]935,962	[E]22,310	[E]256,931	[E]79,538	[E]31,536	[E]67,666	[E]3,428,769
February	[E]217,813	[E]572,742	[E]842,907	[E]18,969	[E]231,585	[E]69,492	[E]27,372	[E]59,490	[E]3,102,781
March	[E]240,498	[E]642,354	[E]961,177	[E]22,752	[E]266,638	[E]78,520	[E]27,921	[E]64,871	[E]3,474,934
April	[E]232,276	[E]619,656	[E]932,661	[E]22,593	[E]256,029	[E]75,109	[E]30,110	[E]58,454	[E]3,362,007
May	[E]237,558	[E]648,124	[E]982,394	[E]24,031	[E]268,279	[E]81,880	[E]30,706	[E]56,290	[E]3,499,909
June	[E]233,220	[E]627,912	[E]949,437	[E]24,338	[E]266,083	[E]80,375	[E]31,225	[E]57,076	[E]3,375,450
July	[E]238,429	[E]643,265	[E]985,195	[E]24,165	[E]279,996	[E]70,816	[E]32,548	[E]63,043	[E]3,494,802
August	[E]236,507	[E]648,577	[E]996,400	[E]25,154	[E]282,678	[E]79,142	[E]32,273	[E]59,986	[E]3,533,722
September	[E]234,235	[E]616,784	[E]966,776	[E]24,587	[E]268,946	[E]78,776	[E]31,376	[E]62,802	[E]3,426,002
October	[RE]239,892	[E]640,992	[RE]999,974	[E]25,742	[RE]284,310	[RE]85,128	[RE]32,256	[RE]61,707	[RE]3,536,693
November	[RE]229,554	[E]643,602	[RE]973,684	[RE]25,897	[RE]282,583	[RE]84,814	[RE]30,876	[RE]57,998	[RE]3,469,148
December	[E]235,217	[E]669,336	[E]1,010,129	[E]26,748	[E]295,123	[E]86,653	[E]31,345	[E]60,486	[E]3,591,868
Total	**[E]2,816,636**	**[E]7,619,991**	**[E]11,536,69**	**[E]287,287**	**[E]3,239,180**	**[E]950,243**	**[E]369,544**	**[E]729,869**	**[E]41,296,084**

[RE] Revised estimated data.

[E] Estimated data.

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

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

Media Release

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WOODSIDE AND KOGAS SIGN AGREEMENT FOR LONG-TERM LNG SUPPLY

Woodside has signed a sale and purchase agreement (SPA) with Korea Gas Corporation (KOGAS) for the long-term supply of liquefied natural gas (LNG) to Korea.

The SPA provides for the supply of approximately 0.5 million tonnes per annum of LNG for a period of 10.5 years on a delivered basis, commencing in 2026 subject to customary conditions precedent.

LNG delivered to KOGAS under the SPA will be sourced from uncommitted volumes across Woodside's global portfolio, including the Scarborough Energy Project which is targeting first LNG cargo in 2026.

Woodside CEO Meg O'Neill said the SPA was significant as Woodside's first long-term supply agreement into Korea, the world's third largest LNG market.

She said the agreement reinforced the ongoing contribution of Woodside's LNG towards the energy security needs of major customers in the region.

"Woodside is pleased to be a long-term supplier of LNG to KOGAS, a leading global energy company and one of the world's largest LNG importers.

"This agreement is further demonstration of ongoing robust demand for Woodside's products from major energy customers in our region.

"Our LNG can help customers such as KOGAS meet their energy security needs, while also supporting regional decarbonisation goals."

KOGAS President and CEO Choi Yeon-hye said she was pleased to conclude the SPA with Woodside.

"This SPA has enabled KOGAS to enlarge the customer base in the domestic power market, reinforcing our role as a leading natural gas supplier in Korea.

"By leveraging this SPA, we look forward to further expanding our business opportunities with Woodside in the LNG industry."

About KOGAS

Korea Gas Corporation (KOGAS) was established in 1983 and is one of the world's biggest LNG buyers. KOGAS imports LNG mainly from Australia, the USA and the Middle East. KOGAS is also engaged in the overseas upstream sector, LNG production projects, and the downstream sector through 38 projects in 20 countries.

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TotalEnergies

PRESS RELEASE

Singapore: TotalEnergies to Supply Sembcorp with 0.8 Mtpa of LNG for 16 Years

Paris, February 29, 2024 – TotalEnergies has signed a sale and purchase agreement (SPA) with Sembcorp Fuels, a wholly owned subsidiary of Singapore-based Sembcorp Industries. The deal entails the delivery of up to 0.8 million tons of liquefied natural gas (LNG) per annum (Mtpa) for a duration of sixteen years, commencing in 2027. The LNG will be sourced from TotalEnergies' global portfolio. This new agreement adds to the companies' current SPA, which runs until 2029.

By supplying this additional LNG supply to Singapore, TotalEnergies is contributing to the country's energy security and to its decarbonization goals. This deal also reflects TotalEnergies' commitment to supporting its customers in their transition to greater sustainability.

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TotalEnergies, the world's third largest LNG player and Europe's leading regasification operator
TotalEnergies is the world's third largest LNG player with a market share of around 12% and a global portfolio of about 50 Mt/y thanks to its interests in liquefaction plants in all geographies. The Company benefits from an integrated position across the LNG value chain, including production, transportation, access to more than 20 Mt/y of regasification capacity in Europe, trading, and LNG bunkering. TotalEnergies' ambition is to increase its LNG production and long-term purchases by 50% by 2030, while continuing to reduce carbon emissions and eliminating the methane emissions associated with the gas value chain. The Company also works with local partners to promote the transition from coal to natural gas.

About TotalEnergies
TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to energy that is ever more affordable, more sustainable, more reliable and accessible to as many people as possible. Active in nearly 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people.

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Cautionary Note
The terms "TotalEnergies", "TotalEnergies company" or "Company" in this document are used to designate TotalEnergies SE and the consolidated entities that are directly or indirectly controlled by TotalEnergies SE. Likewise, the words "we", "us" and "our" may also be used to refer to these entities or to their employees. The entities in which TotalEnergies SE directly or indirectly owns a shareholding

are separate legal entities. This document may contain forward-looking information and statements that are based on a number of economic data and assumptions made in a given economic, competitive and regulatory environment. They may prove to be inaccurate in the future and are subject to a number of risk factors. Neither TotalEnergies SE nor any of its subsidiaries assumes any obligation to update publicly any forward-looking information or statement, objectives or trends contained in this document whether as a result of new information, future events or otherwise. Information concerning risk factors, that may affect TotalEnergies' financial results or activities is provided in the most recent Universal Registration Document, the French-language version of which is filed by TotalEnergies SE with the French securities regulator Autorité des Marchés Financiers (AMF), and in the Form 20-F filed with the United States Securities and Exchange Commission (SEC).

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

Posted 11am on July 14, 2021

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

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

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

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

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

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

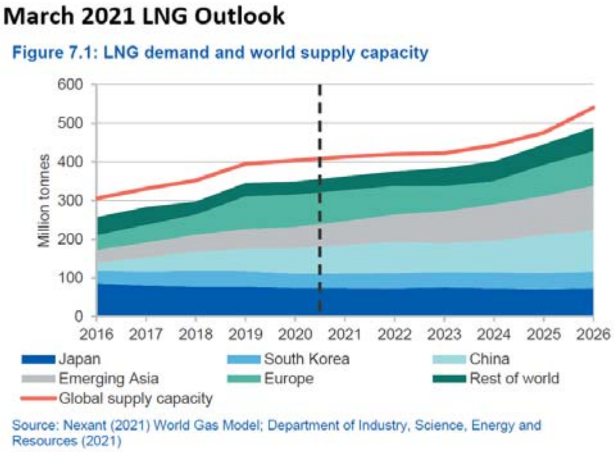
Common theme - new LNG supply is being delayed ie. [Total] Mozambique. Don't forget need capacity>demand due to normal maintenance, etc. Positive for LNG." (ii) Chevron's Gorgon. A big LNG story in H2/20 was the emergence of weld quality issues in the propane heat exchangers at Train 2, which required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

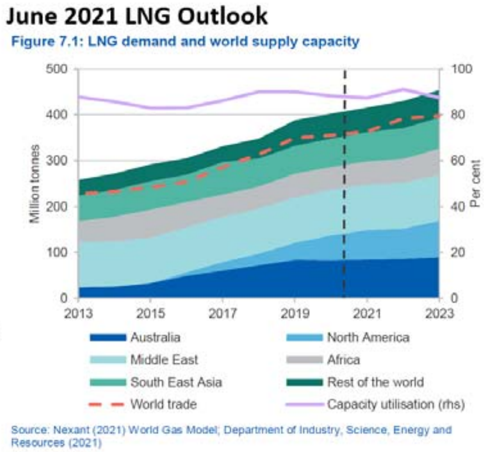
<u>Cheniere stopped the game playing the game on June 30</u>. Our July 4, 2021 Energy Tidbits memo noted that it looks like Cheniere has stopped playing stupid with respect to the strengthening LNG market in 2021. We can't believe they thought they were fooling anyone, especially their competitors. Bu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

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

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

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



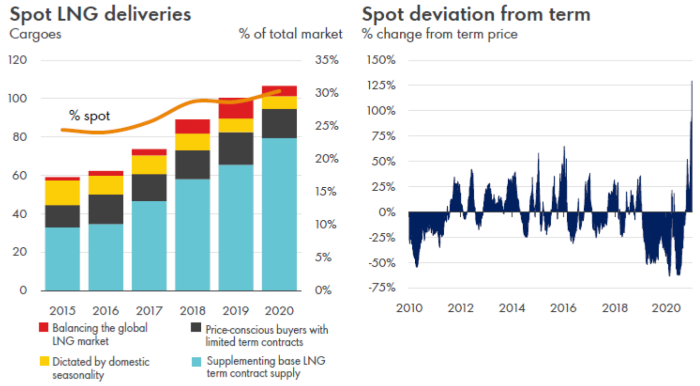


Source: Australia Resources and Energy Quarterly

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

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

Spot LNG deliveries and Spot deviation from term price



Source: Shell LNG Outlook 2021 on Feb 25, 2021

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

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

Petronas/CNOOC is 10 yr supply deal for 0.3 bcf/d. On July 7, we tweeted [LINK] on the confirmation of a big positive to Cdn natural gas with the Petronas announcement [LINK] of a new 10 year LNG supply deal for 0.3 bcf/d with China's CNOOC. The deal also has special significance to Canada. (i) Petronas said "*This long-term supply agreement also includes supply from LNG Canada when the facility commences its operations by middle of the decade*". This is a reminder of the big positive to Cdn natural gas in the next 3 to 4 years – the start up of LNG Canada Phase 1 is ~1.8 bcf/d capacity. This is natural gas that will no longer be moving south to the US or east to eastern Canada, instead it will be going to Asia. This will provide a benefit for all Western Canada natural gas. (ii) First ever AECO linked LNG deal. It's a pretty significant event for a long term Asia LNG deal to now have an AECO link. Petronas wrote "*The deal is for 2.2 million tonnes per annum (MTPA) for a 10-year period, indexed to a combination of the Brent and Alberta Energy Company (AECO) indices. The term deal between PETRONAS and CNOOC is valued at approximately USD 7 billion over ten years.*" 2.2 MTPA is 0.3 bcf/d. (iii) Reminds of LNG Canada's competitive advantage for low greenhouse gas emissions. Petronas said "*Once ready for operations, the LNG Canada project paves the way for PETRONAS to supply low greenhouse gas (GHG) emission LNG to the key demand markets in Asia.*"

Qatar Petroleum/CPC (Taiwan) is 15 yr supply deal for 0.16 bcf/d. Pre Covid, Qatar was getting pressured to renegotiate lower its long term LNG contract prices. Now, it's signing a 15 year deal. On July 9, they entered in a new small long term LNG sales deal [LINK], a 15-yr LNG Sale and Purchase Agreement with CPC Corporation in Taiwan to supply it ~0.60 bcf/d of LNG. LNG deliveries are set to begin in January 2022. H.E. Minister for Energy Affairs & CEO of Qatar Petroleum Al-Kaabi said *"We are pleased to enter into this long term LNG SPA, which is another milestone in our relationship with CPC, which dates back to almost three decades. We look forward to commencing deliveries under this SPA and to continuing our supplies as a trusted and reliable global LNG provider."* The pricing was reported to be vs a basket of crudes.

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

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

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

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

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

SAF GROUP

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

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

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

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

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

Gas Exporting Countries Forum

GECF

https://www.gecf.org/events/algiers-declaration

Algiers Declaration

2 March 2024 Algiers, Algeria

We, the Heads of State and Government of Member Countries of the Gas Exporting Countries Forum (GECF), upon the invitation of His Excellency Mr Abdelmadjid TEBBOUNE, the President of the People's Democratic Republic of Algeria, gathered in the historic city of Algiers on the 2nd day of March 2024 for the 7th GECF Summit, in the spirit of solidarity and cooperation,

i) Recalling:

The Declarations of the GECF Summits held in Doha, the State of Qatar, in 2011; Moscow, the Russian Federation, in 2013; Tehran, Islamic Republic of Iran, in 2015; Santa Cruz de la Sierra, Plurinational State of Bolivia, in 2017; Malabo, Republic of Equatorial Guinea, in 2019; and Doha, the State of Qatar, in 2022;

ii) Reaffirming:

a. The absolute and permanent sovereign rights of Member Countries over their natural gas resources;

b. Our commitment to the GECF objectives and our determination to strengthen the Forum's role while emphasising its contribution to global energy security, equity and sustainability;

c. Our endeavour to efficiently manage and encourage the utilisation of the natural gas resources of Member Countries, aiming to promote sustainable development that benefits both producers and consumers;

d. The importance of cooperation and coordination among Member Countries for the development of research, innovation, knowledge and technology transfer related to natural gas, as well as for the sharing of best practices and promoting capacity building; and

e. Our support for robust and meaningful dialogue among producers, consumers, and other relevant stakeholders, with a view to ensure the security of both demand and supply, foster market stability, and advocate for open, transparent, unhindered and non-discriminatory natural gas markets.

iii) Acknowledging:

a. The fundamental role of natural gas in achieving the United Nations Sustainable Development Goals, satisfying rising global energy needs, and securing universal access to affordable, reliable, sustainable, and modern energy for all;

b. The contributions of eco-friendly natural gas in addressing climate change challenges, and its importance in achieving just, equitable, orderly, inclusive and sustainable energy transitions, while taking into account national circumstances, capabilities and priorities, and that economic growth, social progress and environmental protection are the three intertwined and mutually-supportive pillars of sustainable development;

c. The risks and challenges to the natural gas market derived from the geopolitical and economic situation, especially in terms of physical flows, market functioning, contractual arrangements, flow of sustainable investments and the integrity of critical natural gas infrastructure;

d. The paramount importance of security of natural gas demand, transparent non discriminatory legal and regulatory frameworks and predictable energy, trade, fiscal, and environmental policies in natural-gas-importing and -transit countries;

e. The need to adopt innovation-led practices and scientifically-guided research to enhance the significant role of natural gas in improving energy access and reducing energy poverty;

f. The important role of natural gas in the value chain of the petrochemical and chemical industry in general, with a wide range of key end markets to achieve the United Nations Sustainable Development Goals, including the production of fertilisers to ensure global food security and eradicate hunger; and

g. The crucial need for security of demand and security of supply, and for open and transparent international collaboration to protect critical natural gas infrastructure and enhance resilience to natural disasters, technological incidents and man-made threats, including, but not limited to, malicious use of information and communication technologies.

iv) Reiterating:

a. Our support for all countries in their relentless fight against energy poverty and in their endeavours to bring prosperity to their people, as well as in the exercise of their fundamental rights to develop their energy resources;

b. Our condemnation of all unilateral economic restrictions undertaken without the prior approval of the United Nations Security Council, and any extraterritorial application of national laws and regulations against GECF Member Countries that negatively impact the development and trade of natural gas and jeopardise the security of natural gas supply;

c. Our concern on the recurring volatility in natural gas demand that adversely affects global economic performance, and our determination to work with all parties to achieve balanced and reliable natural gas markets; and

d. The importance of medium and long-term natural gas contracts, equitable and stable natural gas prices, and sustained investments in natural gas for enhancing energy security and supporting the development of resilient energy systems.

v) Expressing:

a. Our determination to strengthen our collaboration with a view to maintain the reliability and resilience of natural gas systems, provide efficient and reliable natural gas supplies, and expand the use of natural gas for sustainable development and climate change mitigation and adaptation;

b. Our call for timely investment for market stability and unhindered flow of financial resources, access to technology, and knowledge transfer in a non-discriminatory manner;

c. Our warm welcome of the signing of the Agreement on the GECF Gas Research Institute Headquarters, based in Algiers;

d. Our determination to promote innovative technologies for natural gas and connected industries, through the Gas Research Institute, for the benefit of GECF Member Countries;

e. Our rejection of any use of climate change as justification to implement measures that hinder investments in natural gas projects and create any means of arbitrary discrimination or disguised restriction in direct contravention of international trade rules;

f. Our strong support for African countries in their aspirations and commendable endeavours to tackle energy poverty, address the challenges related to energy access and foster sustainable, equitable and inclusive socio-economic development while protecting the environment, in line with the United Nations 2030 Development Agenda and the African Union's Agenda 2063;

g. Our rejection of any artificial interventions in natural gas markets, including attempts to alter the price discovery and risk management functions of markets, as well as the imposition of politically-driven price caps, which can only aggravate market tightness and discourage investments required to satisfy growing global energy demand; and

h. Our disapproval of the unilateral implementation of unprecedented actions and taxation measures, which are supposedly justified by ensuring security of energy supply for some, at the expenses of the natural gas market rules, and with the risk of accentuating imbalances to the detriment of people in vulnerable situations.

Resolve our common determination to:

1. Promote natural gas as an abundant, affordable, flexible and reliable energy source, and harness and develop more environmentally-friendly, efficient and sustainable natural gas technologies;

2. Advocate for the wider utilisation of natural gas in domestic and international markets, especially as a strategic measure to tackle energy poverty and pursue United Nations Sustainable Development Goals. This includes championing natural gas as a pivotal source of energy for a just, inclusive and prosperous future, ensuring that no one is left behind;

3. Contribute to the inclusion of natural gas as an environmentally sustainable natural resource in climate, investment and fiscal regulations, international banking and global trade;

4. Foster the increased use of natural gas in maritime and land transportation, and develop necessary infrastructure to provide it efficiently and cost-effectively to all consumers;

5. Support the fundamental role of long-term natural gas contracts, as well as gas pricing based on oil/oil-products indexation, to ensure steady investments in the development of natural gas resources;

6. Strengthen the GECF's positioning by increasing its international visibility, attracting new members, encouraging partnerships, facilitating dialogue between producers and consumers, and broadening cooperation with relevant international organisations and entities;

7. Support the further development of the GECF’s expertise and mechanisms for joint undertakings, in order to harness the role of the GECF as a leading platform for dialogue and cooperation on natural gas matters;

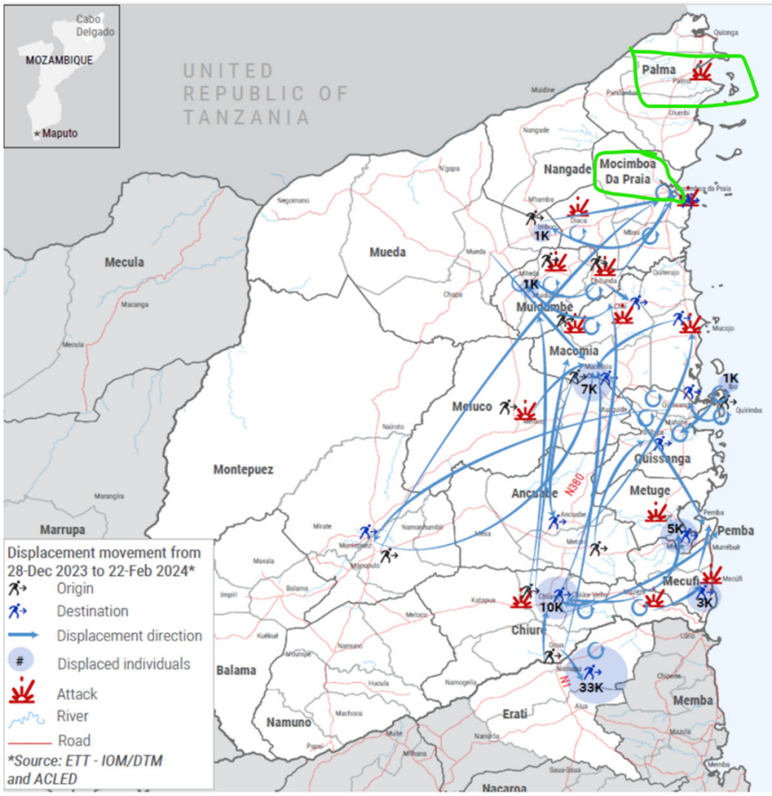
8. Take advantage of the GECF’s Gas Research Institute to expand cooperation in, inter alia, natural gas technologies, scientifically-guided research, and innovation led capacity-building; and

9. Stress the crucial importance of safeguarding natural gas critical infrastructure, including cross-border infrastructure, to ensure its reliability and resilience, as well as strengthening international cooperation in risks reduction, prevention and protection from natural disasters, technological mishaps and man-made threats, including deliberate attacks and malicious use of information and communication technologies, as appropriate.

The Heads of State and Government welcomed the accession of the Republic of Mozambique, the Islamic Republic of Mauritania, and the Republic of Senegal to the Forum, reaffirming the GECF’s collective pursuit of fostering energy cooperation and dialogue.

The Heads of State and Government of the Member Countries of the Gas Exporting Countries Forum extend their appreciation to His Excellency Mr Abdelmadjid TEBBOUNE, the President of the People’s Democratic Republic of Algeria, for his excellent leadership of the 7th GECF Summit, as well as to the Government and the people of the People’s Democratic Republic of Algeria for their warm hospitality and excellent arrangements.

MOZAMBIQUE – Displacement in northern Mozambique
Flash Update No. 3
As of 27 February 2024



Displacement trends between 28 December 2023 – 26 February 2024 Source: ETT – IOM/DTM and ACLED

Source: TotalEnergies Aug 24, 2020 Press Release

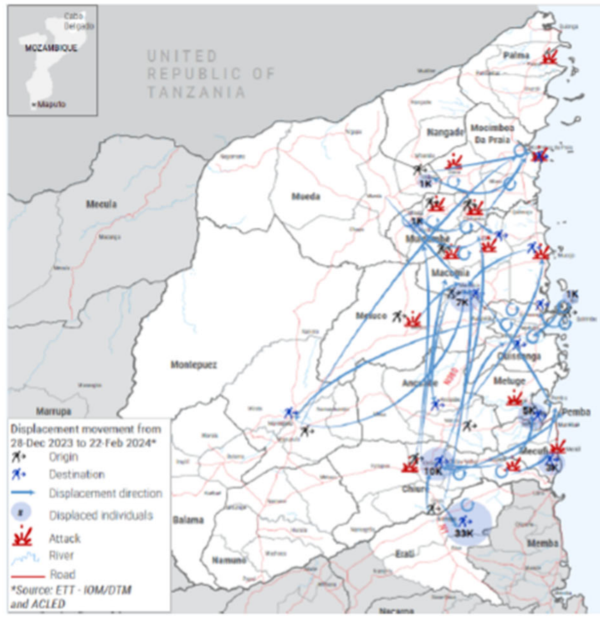
MOZAMBIQUE – Displacement in northern Mozambique

Flash Update No. 3

As of 27 February 2024

HIGHLIGHTS

- A total of 71,681 people have been displaced since 22 December due to attacks or fear of attacks by non-State armed groups (NSAGs), the majority (69 per cent) are women (14K) and children (35K).
- Close to half of the newly displaced people (33,218 people) have arrived in Erati district in Nampula province after fleeing Chiure district in Cabo Delgado.
- Humanitarian organisations are supporting 33,000 people with food, shelter & NFIs, WASH and protection in Erati, Nampula. In Macomia some 25,000 people have been assisted with food and up to 3,000 people with NFIs. In Chiure, some 11,000 people have received hygiene and water purification supplies, basic shelter materials, and food. Humanitarian partners have conducted needs assessment of the newly displacement people and are providing food, wash, shelters and health services to reach people in need.



Displacement trends between 28 December 2023 – 26 February 2024 Source: ETT – IOM/DTM and ACLED

SITUATION OVERVIEW

In December, confrontations between non-State armed groups (NSAGs) and the Security Defence Forces scaled-up, violent attacks against civilians occurred. NSAGs areas of operation have extended beyond Macomia, Mocimboa da Praia and Muidumbe. Starting in February, NSAGs southwards to Quissanga, Metuge, Mecufi and Chiure.

Civilians have been affected, with many being displaced – including people who had returned home – as a result of attacks and fear of attacks by NSAGs. People have been displaced in 12 of 17 districts in Cabo Delgado. The most recent estimates of people displaced IOM/DTM Emergency Tracking Tool of 26 February) indicate that since 22 December 71,681 people had been displaced, the majority are children (35,500) and women (14,500) representing 69 per cent of all people displaced.

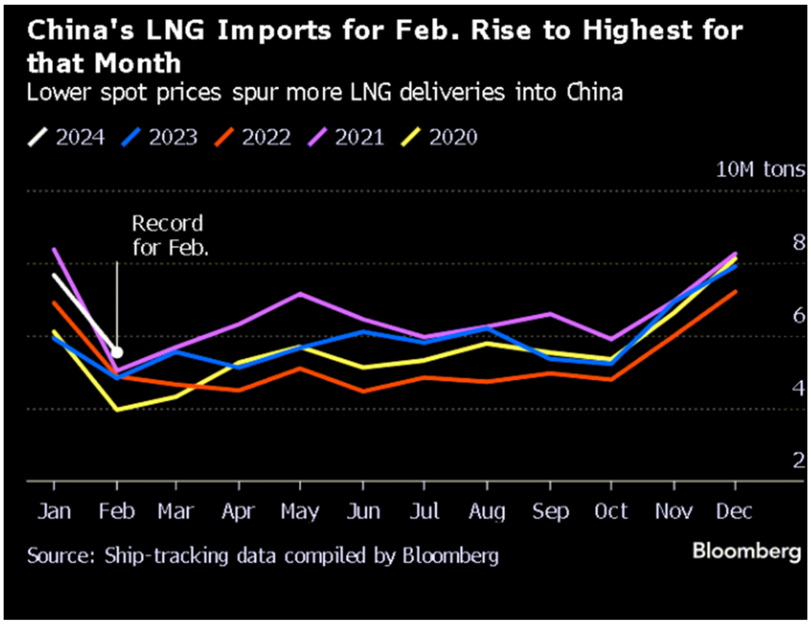
Since December, people have been fleeing the coastal areas (Mucojo) and northern areas (Chai) to Macomia district headquarters as a result of attacks, military activity and fear of attacks.

People fled within Chiure and towards Namapa and Alua in Erati district in Nampula province following attacks in Mazeze, Chiure Velho and Ocua in Chiure district in February. More than 15,000 people have fled to Chiure headquarters with another 33,234 people who have arrived in Erati district in Nampula province. Displacement from Cabo Delgado to Nampula had not occurred since 2022.

The latest spate of violence has occurred against a background of returns (601,866 people as of January 2024). A total of 540,000 people remain displaced in Cabo Delgado, with the highest number in Pemba City, Metuge and Macomia.

Humanitarian partners are concerned about the further spread of cholera in transit and accommodation sites. Currently, cholera outbreak is ongoing in three provinces (Cabo Delgado, Niassa and Nampula), with 13 active districts (Montepuez, Chiure, Ancuabe, Namuno, Metuge in Cabo Delgado province; Nampula City, Mecuburi,

China’s February LNG Imports Climb to Highest Ever for the Month
2024-03-01 07:18:58.163 GMT
By Bloomberg News
(Bloomberg) -- China’s liquefied natural gas imports for February jumped to the highest ever level for that month, as a drop in spot prices spurred additional purchases of the fuel. Deliveries rose to more than 5.5 million tons, a 15% increase from a year earlier, according to ship-tracking data compiled by Bloomberg. That’s the first time China’s monthly imports have broken a record since 2021, before the global energy crisis sent prices surging and as virus lockdowns dashed demand.



Spot prices for the super-chilled fuel plummeted this winter due in part to mild weather and strong inventories across Asia and Europe, coupled with ample supply.
LNG is becoming more cost competitive with local gas options and oil products in China. Likewise, Chinese firms are less eager to resell supply elsewhere abroad since potential profits are deteriorating.
China’s LNG imports are forecast to expand 8.1% in 2024, compared with a 12.6% increase last year, according to China National Petroleum Corp., the nation’s biggest energy producer.
“Price remains the key to how much downstream users could turn to gas use,” said Duan Zhaofang, head of the gas division of the CNPC’s Economics and Technology Research Institute, on the sidelines of a conference Wednesday. Falling LNG prices have increased the competitiveness of gas compared with diesel, Duan said.

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Pemex Refineries Process Most Crude in More Than 6 Years
2024-02-29 18:00:51.160 GMT
By Lucia Kassai
(Bloomberg) -- Pemex cranked up rates at its domestic refineries to the highest utilization rates since May 2017, according to company data compiled by Bloomberg.
* Utilization rate rose to 58.6% in January vs 50.6% in December
** Mexico's six refineries have capacity to process 1.627m b/d of crude, according to Pemex
* Pemex didn't disclose data for its new Olmeca refinery, also known as Dos Bocas, which started operations in September
** Refinery should start producing fuels on Feb. 28, president Andres Manuel Lopez Obrador said on the X platform
* Unclear if company will be able to maintain high utilization rates in coming months after an incident at the Tula refinery this month
* Here's the data by refinery:

Refinery	January (b/d)	m/m	y/y	Capacity use	NOTE
Cadereyta	169,413	8.7%	68%	61.6%	highest since April 2017
Madero	117,531	36%	27%	61.9%	highest since March 2016
Tula	179,604	4.6%	-21%	57.0%%	
Salamanca	135,967	16%	-1.0%	61.8%%	highest in 12 months
Minatitlan	141,665	-8.6%	19%	49.7%%	
Salina Cruz	209,905	54%	33%	63.6%	4-month high
Dos Bocas	not available				
Total	954,085	16%	14%	58.6%	highest since May 2017

Read more: Looming Venezuelan Sanctions Give a Bump to Colombian Oil Prices

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https://tass.ru/politika/20018595 18 February, 03:35, Updated February 18, 04:31

Medvedev: Russia will use its entire arsenal in case of attempts to return it to the borders of 1991

Deputy Chairman of the Security Council of the Russian Federation Dmitry Medvedev
© Ekaterina Shtukina/POOL/ TASS

The Deputy Chairman of the Security Council of the Russian Federation noted that "nuclear powers have never lost to anyone" wars, "in which the defense of their Fatherland, their land and their people, their values takes place

MOSCOW, February 18. /TASS/. Attempts to return the Russian Federation to the borders of 1991 will lead to a global war with the West and strikes on Berlin, London, Washington and other targets. Deputy Chairman of the Security Council of the Russian Federation Dmitry Medvedev wrote about this in the Telegram channel.

He noted that "nuclear powers have never lost to anyone" wars "in which the defense of their Fatherland, their land, people and values takes place.

"Attempts to bring Russia back to the 1991 borders will only lead to one thing. To a global war with Western countries with the use of the entire strategic arsenal of our state. In Kyiv, Berlin, London, Washington. For all other beautiful historical places that have long been included in the flight goals of our nuclear triad," Medvedev stressed.

"So it's better to let them return everything before it's too late. Or we will return it ourselves with maximum losses for the enemy. Like Avdiivka. Our soldiers are heroes!" wrote the deputy chairman of the Security Council of the Russian Federation.

The politician noted that his recent assertion that a nuclear power cannot lose a war has been followed by comments that even the United States has lost wars. "This is a blatant lie. I wasn't talking about Vietnam, Afghanistan, or dozens of other places where the Americans waged colonial wars of conquest. I wrote about historical wars," he wrote, explaining that he meant those cases when the fate of the state itself is at stake. According to Medvedev, he was forced to return to this topic by the statements of such figures as German Defense Minister Boris Pistorius and British Defense Secretary Grant Shapps, who claim that "the world cannot afford a Russian victory in this war."

Medvedev suggested for a moment to imagine that the Russian Federation lost, and "Ukraine with its allies" won. "What would be such a victory for our enemies – the neo-Nazis with their Western sponsors? Well, as it has been said many times, a return to the borders of 1991. That is, the direct and irreversible collapse of today's Russia, which, according to the constitution, includes new territories. And then there was a fierce civil war with the final disappearance of our country from the map of the world. Tens of millions of victims. The death of our future. The collapse of everything in the world," the politician described the apocalyptic picture. He asked a rhetorical question whether the mentioned figures really believe that the people of the Russian Federation will swallow such a division of their country and will reason something like this: "Well, alas, it happened. They won. Today's Russia has disappeared. It's a pity, of course, but we have to go on living in a collapsing, dying country, because a nuclear war is much more terrible for us than the death of our loved ones, our children, our Russia..."? The deputy head of the Security Council of Russia also invited his opponents to seriously think about whether the hand of the leadership of the state, headed by the Supreme Commander-in-Chief of the Armed Forces of the Russian Federation, will tremble in such a situation.

Medvedev is convinced that "it will be completely different." He warned that the consequences of the collapse of the Russian Federation would be much more terrible than the results of "an ordinary, even the most protracted war."

Medvedev noted that the answer to the question of whether the Russian leadership will have the courage to deliver such blows if the disappearance of the thousand-year-old country is at stake is obvious.

02/27/2024 04:53:13 [BN] Bloomberg News

Russia's Crude Exports Shrug Off Halt to Key Pacific Grade

Surging ESPO shipments outweigh the loss of Sokol cargoes last week

By Julian Lee

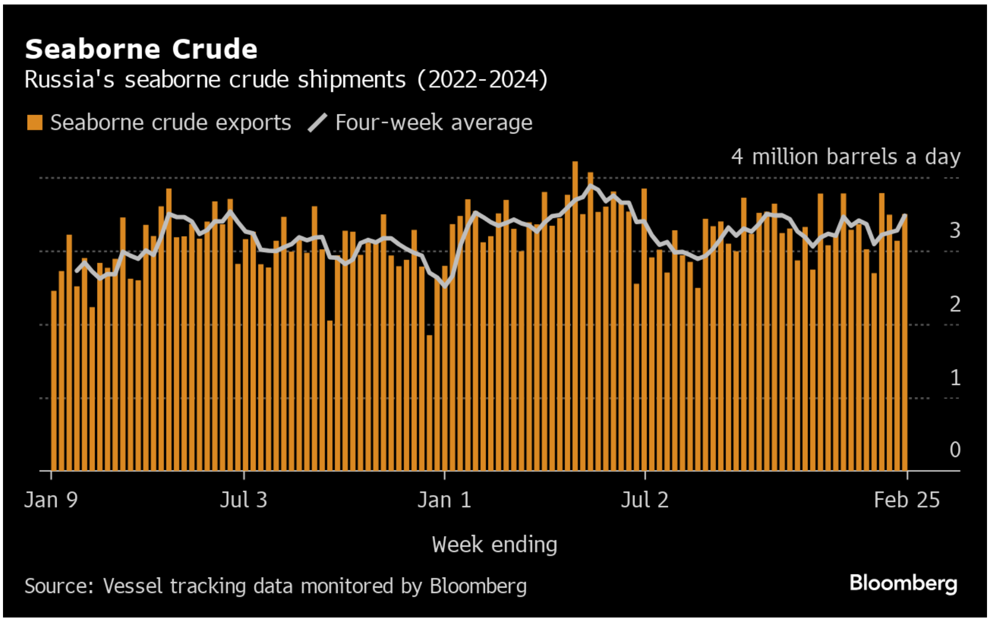
(Bloomberg) -- A temporary halt in shipments of Russia's Sokol crude from Sakhalin Island on the Pacific Coast was offset by a surge in flows of ESPO from nearby Kozmino, lifting four-week exports to the highest level in almost four months.

The jump in this less volatile measure of overall exports was boosted as a plunge seen in late January — driven by a storm that shut Kozmino and disruptions including a drone strike at the Baltic's Ust-Luga terminal — finally dropped out of the calculation.

That unwinding saw four-week average shipments climb to the highest since the week ended Nov. 5, exceeding Bloomberg's estimate of Moscow's pledged export target by about 190,000 barrels a day. Weekly flows in the seven days to Feb. 22 rose by about 365,000 barrels a day to 3.5 million, some 215,000 barrels a day above target.

The temporary absence of Sokol cargoes stems from a lack of shuttle tankers needed to move the grade from the De Kastri export terminal amid issues with deliveries to Indian refiners. Moscow has struggled since December to get Sokol into India, the main market for the output of the Sakhalin 1 project, with the Asian nation's refiners wary of US sanctions and complaining that the supplies are too expensive.

While three Sokol cargoes were delivered to India this month and several others have been diverted to China, at least 14 more — totaling about 10 million barrels — are still sitting on vessels. And all seven of the specialized vessels that haul the grade from the export terminal had cargoes on board last week, leaving none available to take on fresh shipments. The first to discharge in China last week has returned to De Kastri, where it began loading a new cargo on Tuesday morning; two more should reach the terminal late in the week.



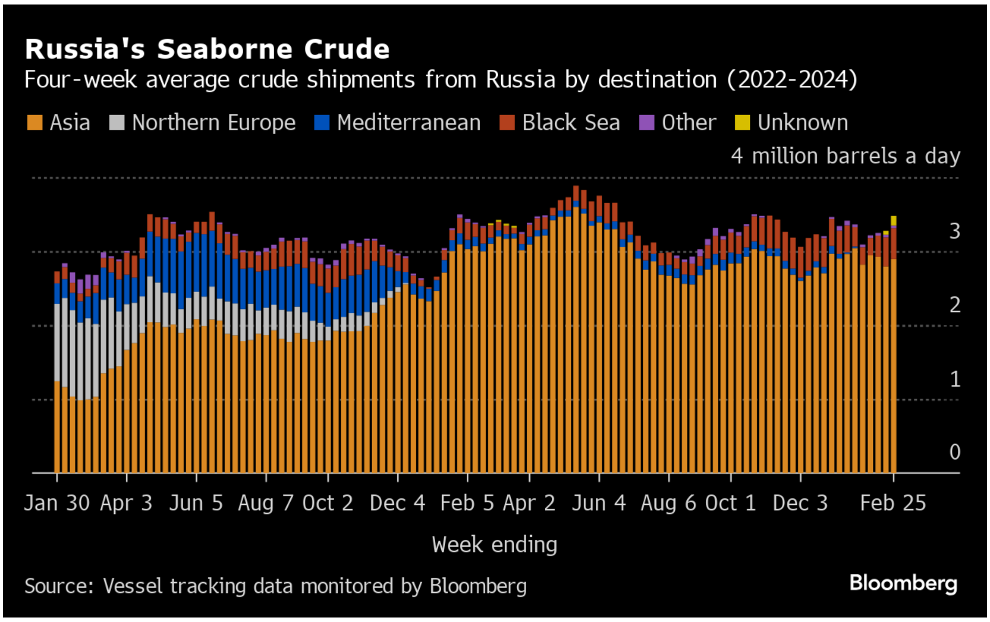
Russia's ability to ship its crude may be further hampered after the US Treasury slapped sanctions on 14 tankers owned by Sovcomflot, the Russian state tanker company. Earlier sanctions forced a chunk of the vast fleet of tankers that Russia uses to deliver its crude oil to grind to a halt.

Meanwhile, Russia's oil-pipeline operator Transneft plans to construct three additional storage tanks at Kozmino as part of plans to boost shipments of ESPO, potentially diverting more crude away from the country's western ports.

The gross value of Russia's crude exports rebounded to a three-week high, rising to $1.73 billion in the seven days to Feb. 25 from $1.55 billion the previous week. Meanwhile four-week average income continued to rise, up by $115 million to $1.7 billion a week.

Flows by Destination

Russia's seaborne crude flows in the four weeks to Feb. 25 jumped by about 200,000 barrels a day to 3.48 million barrels a day. Shipments were about 110,000 barrels a day below the average seen in May and June, or about 190,000 barrels a day above Russia's first quarter target.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through the Black Sea port of Novorossiysk and the Baltic's Ust-Luga and are not subject to European Union sanctions or a price cap.

The Kazakh barrels are blended with crude of Russian origin to create a uniform export grade. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

- ## Asia

Observed shipments to Russia's Asian customers, including those showing no final destination, rose to a five-week high of 3.02 million barrels a day in the four weeks to Feb. 25, up from a revised 2.85 million in the previous four-week period.

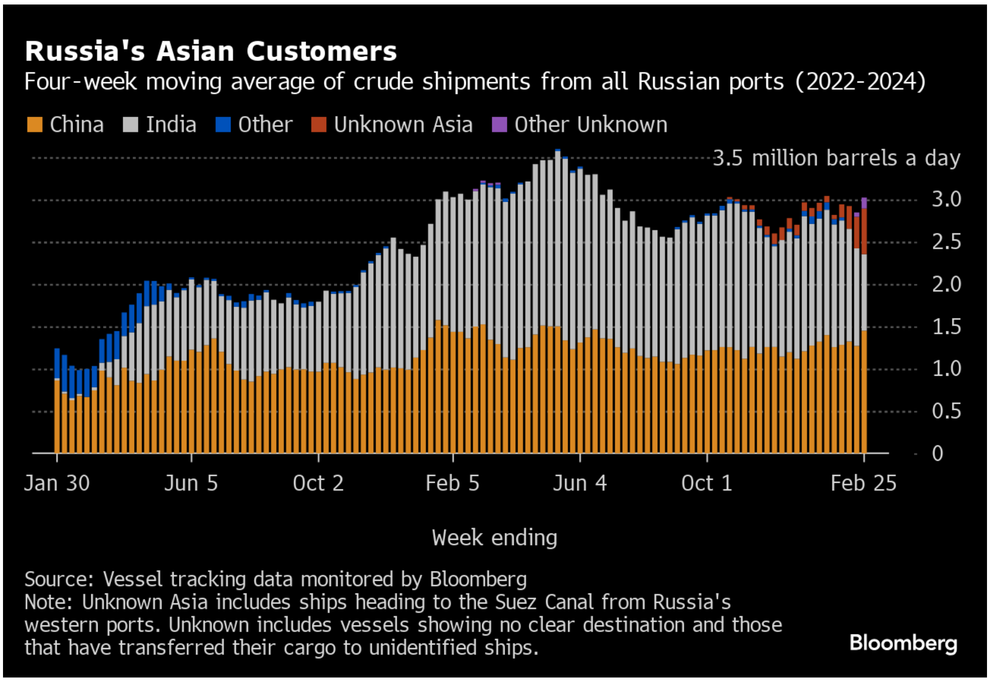
About 1.45 million barrels a day of crude was loaded onto tankers heading to China. The Asian nation's seaborne imports are boosted by about 800,000 barrels a day of crude delivered from Russia by pipeline, either directly, or via Kazakhstan.

Flows on ships signaling destinations in India averaged about 905,000 barrels a day.

Both the Chinese and Indian figures will rise as the discharge ports become clear for vessels that are not currently showing final destinations.

The equivalent of about 540,000 barrels a day was on vessels signaling Port Said or Suez in Egypt, or are expected to be transferred from one ship to another off the South Korean port of Yeosu. Those voyages typically end at ports in India or China and show up in the chart below as "Unknown Asia" until a final destination becomes apparent. This figure includes the Sokol crude still on shuttle tankers awaiting transfer to other vessels as well as the other stranded cargoes of the grade.

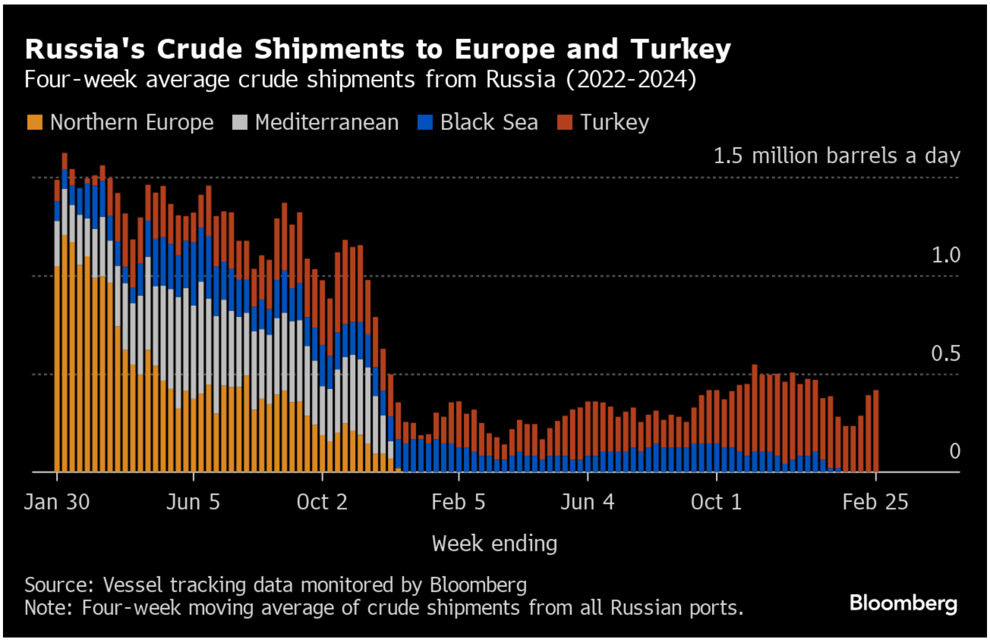
The “Other Unknown” volumes, running at about 130,000 barrels a day in the four weeks to Feb. 25, are those on tankers showing no clear destination. Most of those cargoes originate from Russia’s western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others could be moved from one vessel to another, with most such transfers now taking place in the Mediterranean, off the coast of Greece.



Europe and Turkey

Russia’s seaborne crude exports to European countries have ceased.

With flows to Bulgaria halted at the end of last year, Turkey is now the only short–haul market for shipments from Russia’s western ports.



Exports to Turkey recovered to an 11-week high of about 417,000 barrels a day in the four weeks to Feb. 25. That's the highest since the week ended Dec. 5 and up from a revised figure of about 390,000 barrels a day in the period to Feb. 18.

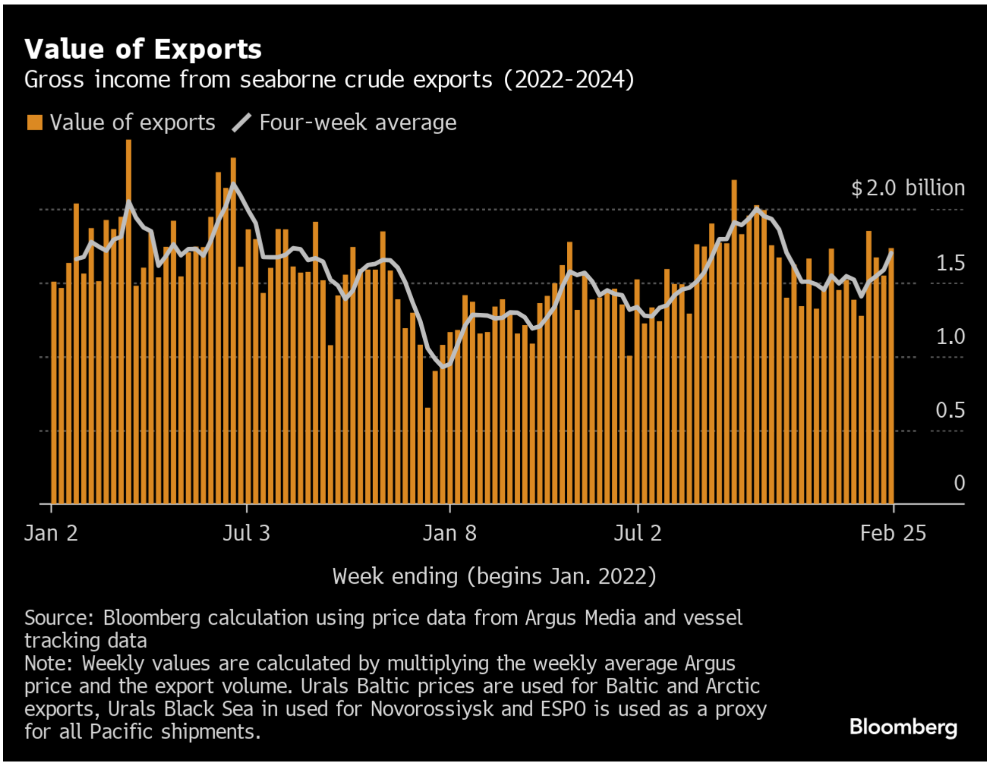
Vessel-tracking data are cross-checked against port agent reports as well as flows and ship movements reported by other information providers including Kpler and Vortexa Ltd.

Export Value

Following the abolition of export duty on Russian crude, we have begun to track the gross value of seaborne crude exports, using Argus Media price data and our own tanker tracking.

The gross value of Russia's crude exports rebounded to a three-week high, rising to $1.73 billion in the seven days to Feb. 25 from $1.55 billion the previous week. Meanwhile four-week average income continued to rise, up by $115 million to $1.7 billion a week. The four-week average is still well off its peak of $2.17 billion a week, reached in the period to June 19, 2022. The highest it reached last year was $2 billion a week in the period to Oct. 22.

During the first four weeks after the Group of Seven nations' price cap on Russian crude exports came into effect in early December 2022, the value of seaborne flows fell to a low of $930 million a week, but soon recovered.



The chart above shows a gross value of Russia's seaborne oil exports on a weekly and four-week average basis. The value is calculated by multiplying the average weekly crude price from Argus Media Group by the weekly export flow from each port. For shipments from the Baltic and Arctic ports we use the Urals FOB Primorsk dated, London close, midpoint price. For shipments from the Black Sea we use the Urals Med Aframax FOB Novorossiysk dated, London close, midpoint price. For Pacific shipments we use the ESPO blend FOB Kozmino prompt, Singapore close, midpoint price.

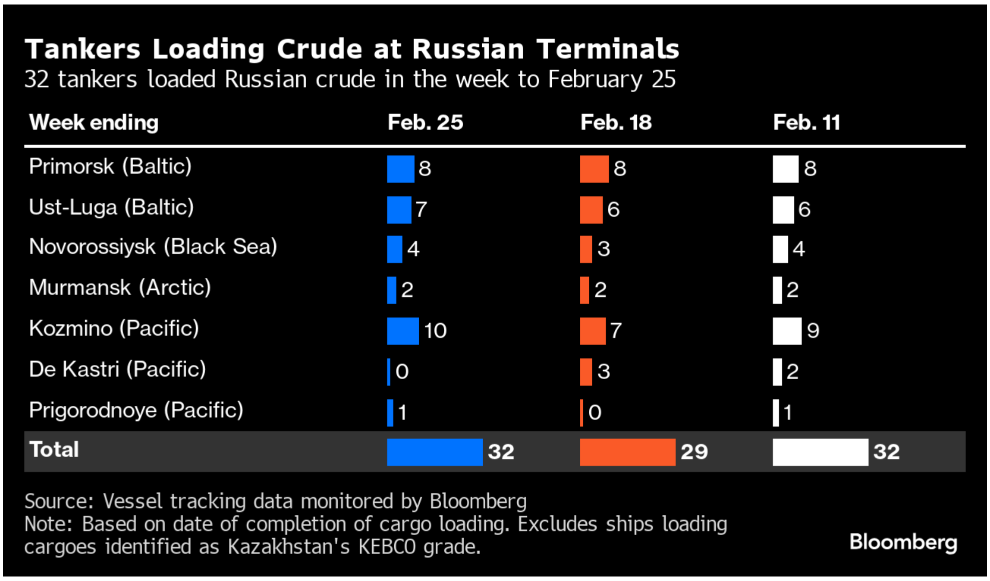
Export duty was abolished at the end of 2023 as part of Russia's long-running tax reform plans.

Ships Leaving Russian Ports

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

A total of 32 tankers loaded 24.5 million barrels of Russian crude in the week to Feb. 25, vessel-tracking data and port agent reports show. That was up by about 2.5 million barrels from the previous week.

Shipments from Russia's Pacific terminal at Kozmino rebounded, offsetting the lack of any shipments from De Kastri.



All figures exclude cargoes identified as Kazakhstan's KEBCO grade. One cargo of KEBCO was loaded at Novorossiysk during the week.

NOTES

Note: This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. Weeks run from Monday to Sunday. The next update will be on Wednesday, March 6.

Note: All figures exclude cargoes owned by Kazakhstan's KazTransOil JSC, which transit Russia and are shipped from Novorossiysk and Ust-Luga as KEBCO grade crude.

If you are reading this story on the Bloomberg terminal, click here for a link to a PDF file of four-week average flows from Russia to key destinations.

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https://www.wsj.com/business/telecom/red-sea-conflict-threatens-key-internet-cables-a564f7ca?mod=middle-east_news_article_pos5

Red Sea Conflict Threatens Key Internet Cables

Maritime attacks complicate repairs on underwater cables that carry the world's web traffic

By Drew FitzGerald Follow

March 2, 2024 5:30 am ET

Conflict in the Middle East is drawing fresh attention to one of the internet's deepest vulnerabilities: the Red Sea.

Most internet traffic between Europe and East Asia runs through undersea cables that funnel into the narrow strait at the southern end of the Red Sea. That chokepoint has long posed risks for telecom infrastructure because of its busy ship traffic, which raises the likelihood of an accidental anchor drop striking a cable. Attacks by Iran-backed Houthis in Yemen have made the area more dangerous.

The latest warning sign came Feb. 24, when three submarine internet cables running through the region suddenly dropped service in some of their markets. The cuts weren't enough to disconnect any country but instantly worsened web service in India, Pakistan and parts of East Africa, said Doug Madory, director of internet analysis at network research firm Kentik.

It wasn't immediately clear what caused the cutoffs. Some telecom experts pointed to the cargo ship Rubymar, which was abandoned by its crew after it came under Houthi attack on Feb. 18. The disabled ship has been drifting in the area for more than a week even after it dropped its anchor.

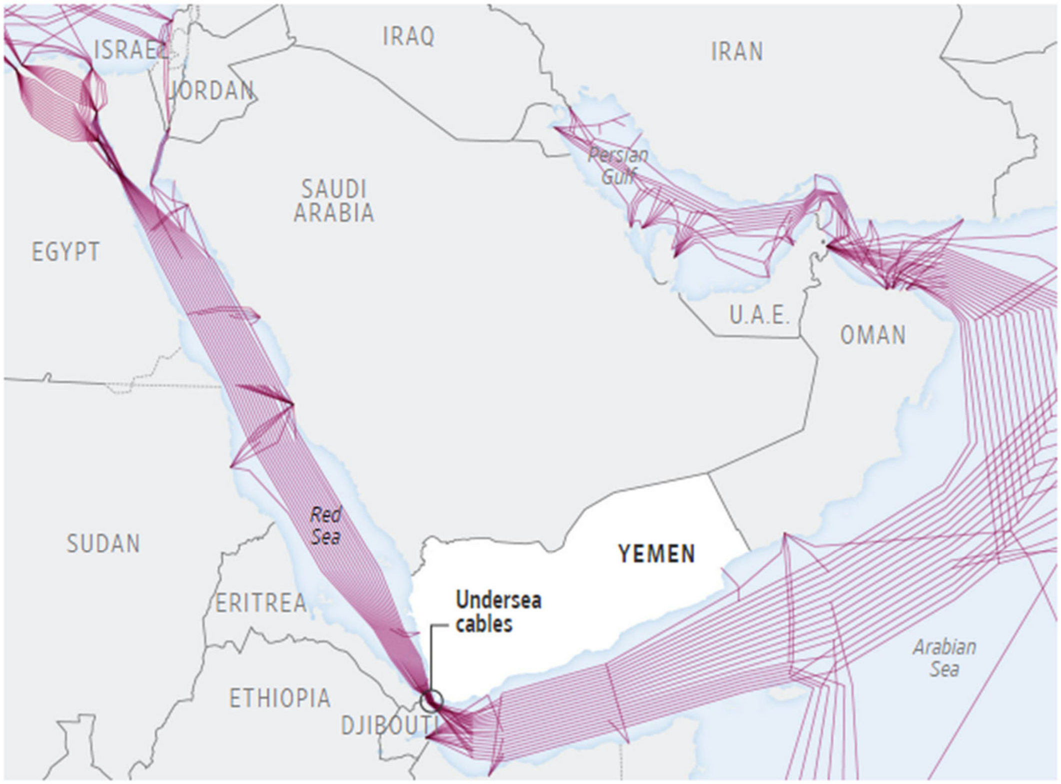
Yemen's Houthi-backed telecom ministry in San'a issued a statement denying responsibility for the submarine cable failures and repeating the government is "keen to keep all submarine telecom cables…away from any possible risks." The ministry didn't comment on the Rubymar attack.

Mauritius-based cable owner Seacom, which owns one of the damaged lines, said fixing it will demand "a fair amount of logistics coordination." Its head of marketing, Claudia Ferro, said repairs should start early in the second quarter, though complications from permitting, regional unrest and weather conditions could move that timeline.

"Our team thinks it is plausible that it could have been affected by anchor damage, but this has not been confirmed yet," Ferro said.

Cable ships' lumbering speed makes draping new lines near contested waters a dangerous and expensive task. The cost to insure some cable ships near Yemen surged earlier this year to as much as $150,000 a day, according to people familiar with the matter.

Yemen's nearly decadelong civil war further complicates matters. Houthi rebels control much of the western portion of the country along the Red Sea, while the country's internationally recognized government holds the east. Companies building cables in the region have sought licenses from regulators on both sides of the conflict to avoid antagonizing either authority, other people familiar with the matter say.



Source: TeleGeography

The mounting cost of doing business also threatens tech giants' efforts to expand the internet. The Google-backed Blue Raman system and Facebook's 2Africa cable both pass through the region and remain under construction. Two more telecom company-backed projects also are scheduled to build lines through the Red Sea.

Most of the internet's intercontinental data traffic moves by sea, according to network research firm TeleGeography. Submarine cables can be simpler and less expensive to build than overland routes, but going underwater comes with its own risks. Cable operators report about 150 service faults a year mostly caused by accidental damage from fishing and anchor dragging, according to the International Cable Protection Committee, a U.K.-based industry group.

"Having alternative paths around congested areas such as the Red Sea has always been important, though perhaps magnified in times of conflict," ICPC general manager Ryan Wopschall said.

Several internet companies have considered ways to diversify their connections between Europe, Africa and Asia. Routes across Saudi Arabia, for instance, could skirt the waters around Yemen altogether. But many national regulators charge high fees or impose other hurdles that make sticking to tried-and-true routes more attractive.

"The industry, as with any industry, reacts to the conditions set upon it, and routing in Yemen waters is a result of this," Wopschall said.

Benoit Faucon contributed to this article.

https://www.submarinecablemap.com/

Submarine Cable Map

The Submarine Cable Map is a free and regularly updated resource from TeleGeography.

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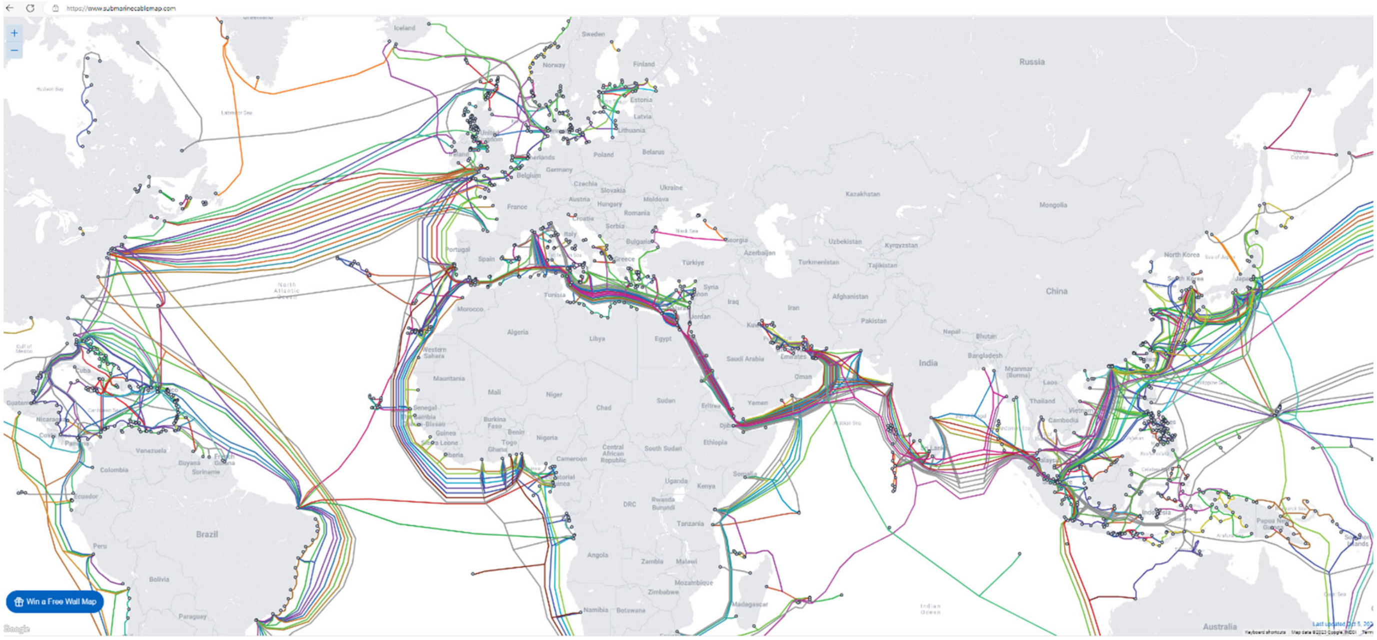
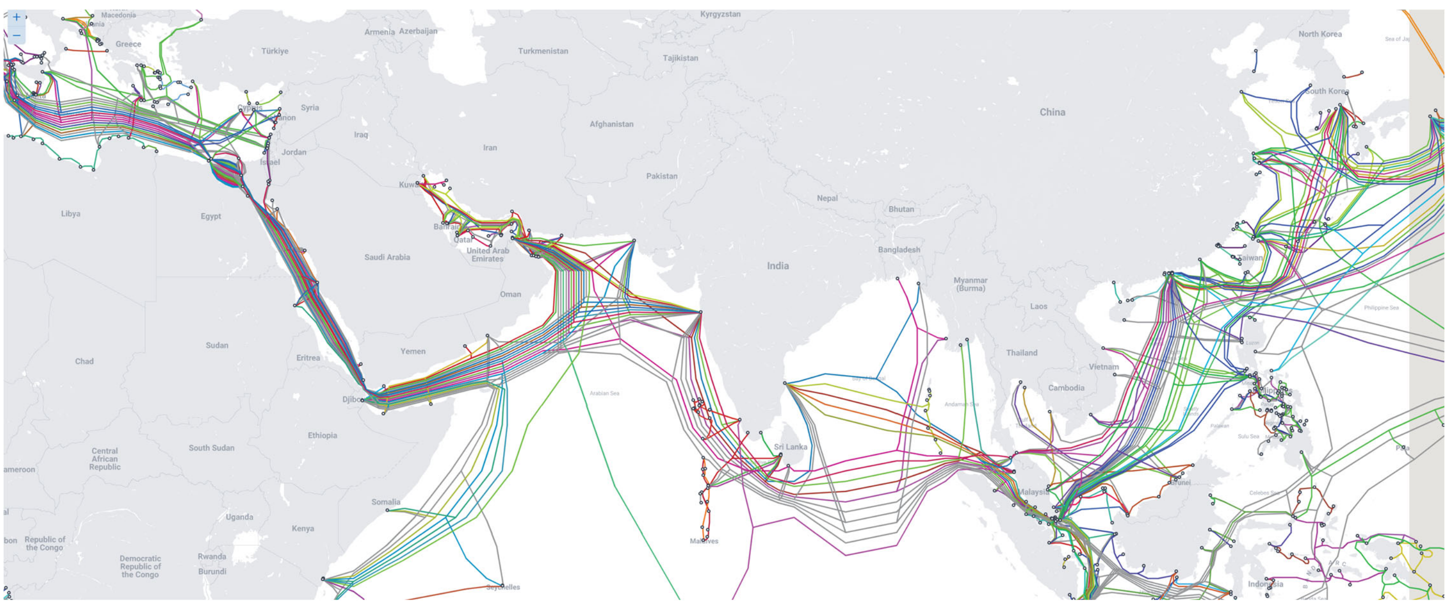




Map included with attributions in SAF Group Energy Tidbits memo https://safgroup.ca/news-insights/

Al Masirah reporting on comments by Houthi leaders speech today.
https://english.almasirah.net.ye/allfastnews.php
FAST NEWS
about 2 hours Sayyed Abdulmalik to Palestinians: You are not alone, the Yemeni people through their participation tomorrow, will actively express that they will stand with you until victory.

about 2 hours Sayyed Abdulmalik calls on Yemeni People to participate in the million-man march tomorrow in Sana'a, and rest of the provinces.

about 2 hours Sayyed Abdulmalik: It is necessary to continue the million-man marches, which have a significant supportive impact in the face of a terrible betrayal.

about 2 hours Sayyed Abdulmalik: The missile strikes, drone operations, and naval forces' operations represent the Yemenis who come out in millions in demonstrations.

about 2 hours Sayyed Abdulmalik: The mobilization continues with thousands of active and widespread attendees.

about 2 hours Sayyed Abdulmalik: We have surprises that the enemies never expect.

about 2 hours Sayyed Abdulmalik: The entry of food, medicine, and humanitarian needs to the Palestinian people in Gaza must be ensured and the genocidal crimes must be stopped.

about 2 hours Sayyed Abdulmalik: Our positions are clear, and our operations will continue with high effectiveness towards the Red Sea, Arabian Sea, Gulf of Aden, and the Bab el-Mandeb Strait.

about 2 hours Sayyed Abdulmalik rejects to militarize the Red Sea.

about 2 hours Sayyed Abdulmalik: The story of the US soldier who set himself on fire in protest against what the Israeli enemy is doing, reflects American support.

about 2 hours Sayyed Abdulmalik: US-UK airstrikes and bombings have no impact on our capabilities or morale, not even among children.

about 2 hours Sayyed Abdulmalik: Correct stance that contributes to stability of entire region is to stop the aggression and end the siege on Gaza.

about 2 hours Sayyed Abdulmalik: The total number of missiles and drones used in our operations against the enemies reached 384.

about 2 hours Sayyed Abdulmalik: The US has implicated itself in aggression against Yemen, protecting Zionist criminality and supporting the continued Israeli aggression on Gaza.

about 2 hours Sayyed Abdulmalik: We have achieved the goal of preventing the Israeli enemy's movement through the Bab el-Mandeb Strait in the Red Sea.

about 2 hours Sayyed Abdulmalik: Yemen's operations supporting the Palestinian people in Gaza have targeted 54 ships, which is a very important and significant number.

about 2 hours Sayyed Abdulmalik: Zionist Jews have no place in controlling Palestine, Al-Quds, or Al-Aqsa Mosque, no matter how much they commit crimes and oppress.

about 2 hours Sayyed Abdulmalik: US-Israeli enemies control the official decision in order to avoid taking any practical and serious stance in support of the Palestinian people.

about 3 Hours Sayyed Abdulmalik: Jews despise rest of humanity, does not recognize the humanity of others.

about 3 Hours Sayyed Abdulmalik: Muslims must look at Jews with a conscious perspective understand them as enemies.

about 3 Hours Sayyed Abdulmalik: Arabs cannot absolve themselves of their responsibility towards Gaza, serious consequences.

about 3 Hours Sayyed Abdulmalik: The Palestinian issue is a humanitarian, religious, and moral concern for Arabs, and it is directly linked to their security and real interests.

about 3 Hours Sayyed Abdulmalik: If Arabs and Muslims provided support to Gaza, Palestinian people would be able to decisively win the battle against the enemy.

about 3 Hours Sayyed Abdulmalik: Psychological crisis described by the so-called Minister of Health in the Israeli enemy as unprecedented considered victory.

about 3 Hours Sayyed Abdulmalik: Unprecedented resilience, patience, and steadfastness shown by Palestinian fighters in the Gaza fronts.

about 4 Hours Sayyed Abdulmalik: All children are facing famine, and 95% of population does not have access to enough food to satisfy their hunger.

about 4 Hours Sayyed Abdulmalik: Anyone moves from the northern Gaza through designated streets to cross 'safely' is targeted by Israeli tanks and snipers.

about 4 Hours Sayyed Abdulmalik: All the people of Gaza are living a real tragedy.

about 4 Hours Sayyed Abdulmalik: Israeli enemy obstructs access of the hungry in Gaza to even a small amount of food and seeks to commit a horrific genocide.

about 4 Hours Sayyed Abdulmalik: Israeli enemy turned gathering of hungry and besieged civilians on relief trucks in northern Gaza into a trap targeting them.

about 4 Hours Sayyed Abdulmalik: Zionist criminality, which US participates directly, West supports, surpasses all expectations.

about 6 Hours Leader of the Revolution Sayyed Abdulmalik Al-Houthi to speak today about the latest developments

about 6 Hours Health Ministry in Gaza: Death toll of Israeli aggression risen to 30,035 martyrs and 70,457 injuries since Oct. 7

about 6 Hours Health Ministry in Gaza: Several victims are still trapped under the rubble and in the streets, Israeli army is preventing rescue and civil defense teams from reaching them

about 7 Hours Health Ministry in Gaza: 81 martyrs and 132 injuries in 9 massacres by the Israeli enemy in the past 24 hours

about 8 Hours Government Media Office in Gaza appeals to the world, Arab and Islamic countries to intervene immediately to stop the genocide war against Palestinian people

about 8 Hours Government Media Office in Gaza holds US administration, international community, and Israeli occupation responsible for the horrific massacre

about 8 Hours Government Media Office in Gaza: Israeli enemy was aware of the arrival of the victims to the area to receive aid, but it killed them in cold blood

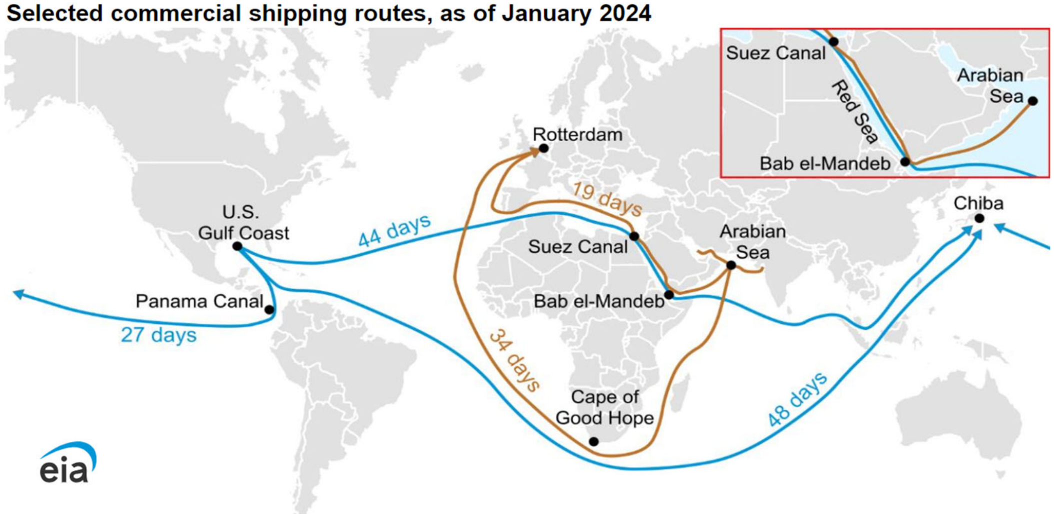
about 8 Hours Government Media Office in Gaza: Israeli enemy committed horrific massacre with premeditation as part of the genocide against the people of the Strip

about 8 Hours Government Media Office in Gaza: Over 70 killed, 250 wounded in Israeli horrific massacre southwest of Gaza City https://www.eia.gov/todayinenergy/detail.php?id=61363

FEBRUARY 1, 2024

Red Sea attacks increase shipping times and freight rates

Selected commercial shipping routes, as of January 2024



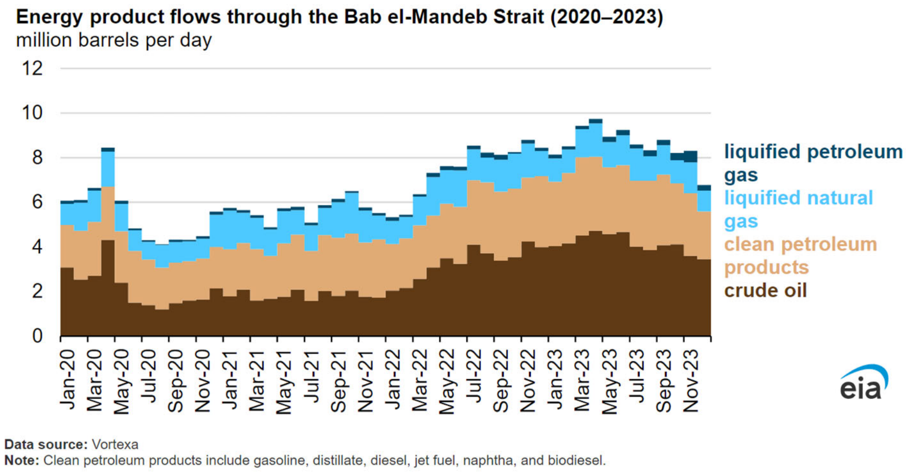
Data source: U.S. Energy Information Administration using calculations from Vortexa
Note: Voyage time is calculated for laden Suezmax tankers traveling at 14 knots without extended chokepoint delays.

After Yemen-based Houthi militia attacks on commercial ships transiting the Red Sea started in November 2023, some vessels began opting to avoid the Bab el-Mandeb chokepoint—a narrow strait that borders the Yemeni coast and is the southern entrance to the Red Sea. Instead, they're choosing to take longer, more costly routes around the tip of Africa.

Ships transiting between Europe and Asia via the Suez Canal must pass through the Bab el-Mandeb Strait, which connects the Red Sea to the Gulf of Aden. The Bab el-Mandeb Strait is an important oil and natural gas chokepoint, accounting for 12% of seaborne oil trade and 8% of liquefied natural gas (LNG) trade in the first half of 2023. Major oil and natural gas companies that are avoiding the Red Sea include Equinor, which operates mostly natural gas carriers, and bp, which operates both oil and natural gas carriers. As of January 23, 2024, other major energy companies pausing Red Sea transits include Euronav, QatarEnergy, Torm, Shell, and Reliance.

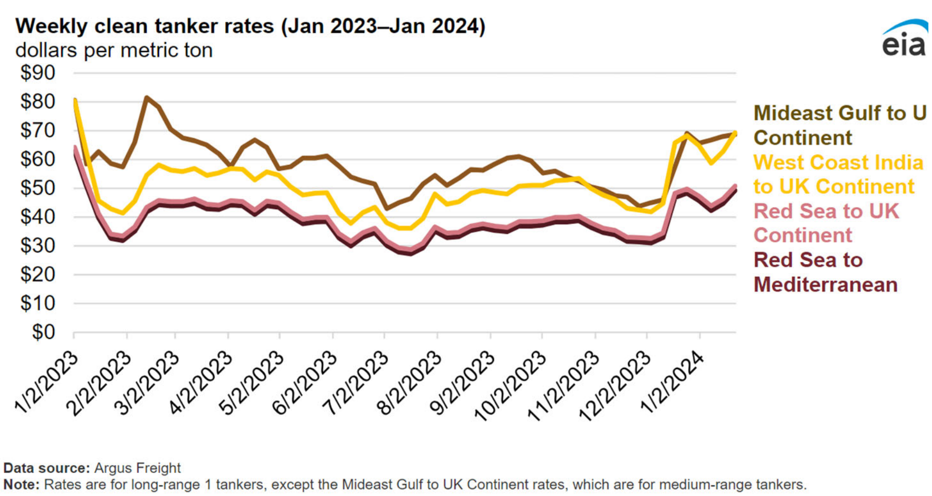
Vessels that do not pass through the Suez Canal via the Bab el-Mandeb Strait and Red Sea can go around southern Africa via the Cape of Good Hope, but that route can add significant time to the voyage, depending on the ship's origin and its destination. A typical voyage from the Persian Gulf to the Amsterdam-Rotterdam-Antwerp petroleum trading hub (ARA) via the Suez Canal takes 19 days. If the ship takes the Cape of Good Hope route, it takes nearly 35 days to reach the ARA. For products leaving the U.S. Gulf Coast and heading toward Asia, vessels typically pass through the Panama Canal, which is nearly a month-long trip. Due to the ongoing drought and restrictions at the Panama Canal, more Very Large Gas Carriers (VLGCs), which primarily carry propane and butane, started going through the Suez Canal. Now some of these VLGCs are going around the Cape of Good Hope. A journey from the U.S. Gulf Coast to Chiba in Japan through the Suez Canal adds about 17 days and one through the Cape of Good Hope adds about 21 days, compared with going through the Panama Canal.

Longer routes put upward pressure on freight rates because of fuel costs and fewer available ships. A VLGC, for example, consumes about $30,000 to $35,000 worth of fuel per day if using high-sulfur bunker fuel at average 2023 prices. In addition to adding to fuel costs, a longer voyage requires more ships to maintain the same delivery schedule, and fewer available ships contribute to higher tanker rates and costs.



After the attacks began in November, flows of oil, refined products, and natural gas passing through the Bab el-Mandeb Strait slowed. About 18% less crude oil flowed through the Bab el-Mandeb in December than on average from January to November 2023. Most crude oil trade that goes through the Bab el-Mandeb Strait leaves Russia and Iraq en route to Asia and the Mediterranean, respectively. Clean petroleum product flows through the Bab el-Mandeb Strait were 30% lower in December than the rest of 2023. The majority of petroleum product trade leaves Saudi Arabia and India bound for Europe and leaves Russia bound for Asia.

In December, 24% less LNG and 1% more liquefied petroleum gas (LPG) were traded globally compared with the rest of 2023. Vessel restrictions at the Panama Canal due to a drought are causing more VLGCs leaving from the United States to head east toward either the Suez Canal or the Cape of Good Hope. LPG flows through the Bab el-Mandeb increased by 59% in 2023 compared with 2022 because water conservation efforts at the Panama Canal began in January 2023, causing delays and higher costs for VLGCs. The Combined Maritime Forces, a partnership representing 39 nations, warned ships to avoid the Bab el-Mandeb Strait on January 12, which will likely reduce passages through January 2024.



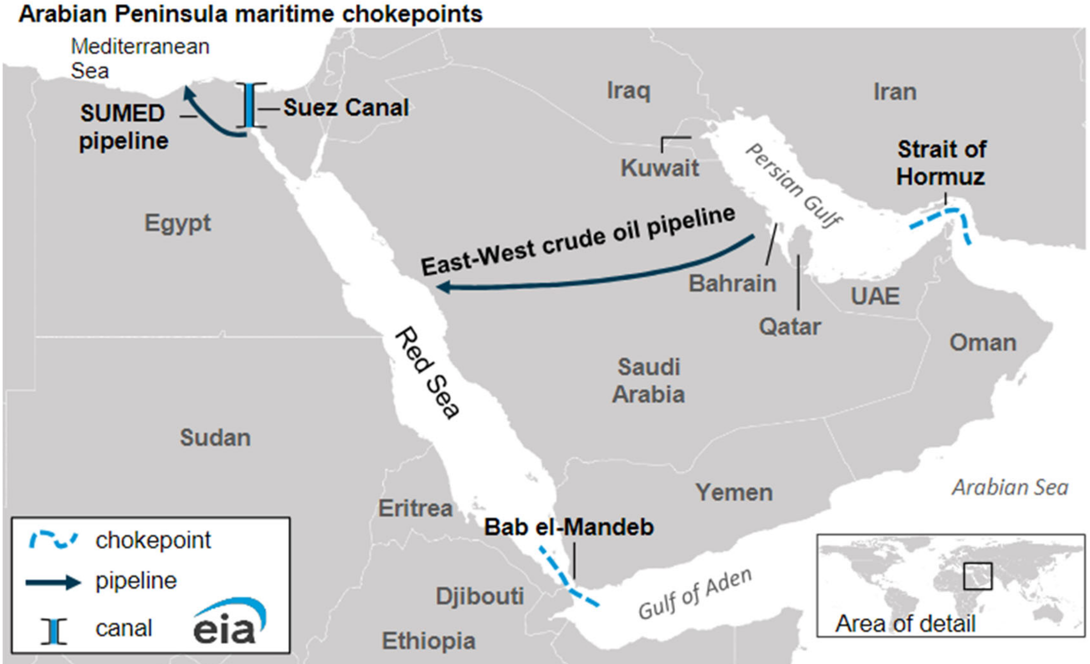
Clean petroleum product tanker rates for routes that cross the Bab el-Mandeb Strait and Suez Canal increased in December 2023 because of the ongoing conflict in the Red Sea. Because routes going through the Red Sea have elevated risk insurance premiums, these costs are passed on to tanker rates. For the four tanker rates that pass through the Red Sea, the average increase was 20% in December compared with November, according to Argus Freight. Long-range 1 tankers traveling from the western coast of India to the UK Continent increased the most (23%), and tankers traveling from the Mideast Gulf to the UK Continent increased the least (16%). Rates for dirty tankers, which mostly transport crude oil, have been relatively unchanged from the elevated prices in November.
Brent crude oil spot prices for the week ending November 17, 2023, the week before attacks on ships in the Red Sea began, were $82 per barrel (b). Since then, prices have traded in range, and they closed at $79/b as of January 18, 2024.

Principal contributor: Josh Eiermann https://www.eia.gov/todayinenergy/detail.php?id=61025

DECEMBER 4, 2023

Red Sea chokepoints are critical for international oil and natural gas flows

Arabian Peninsula maritime chokepoints



Data source: U.S. Energy Information Administration

The Suez Canal, the SUMED pipeline, and the Bab el-Mandeb Strait are strategic routes for Persian Gulf oil and natural gas shipments to Europe and North America. Total oil shipments via these routes accounted for about 12% of total seaborne-traded oil in the first half of 2023, and liquefied natural gas (LNG) shipments accounted for about 8% of worldwide LNG trade.

The Suez Canal and SUMED pipeline are located in Egypt and connect the Red Sea with the Mediterranean Sea. The SUMED pipeline transports crude oil north through Egypt and has a capacity of 2.5 million barrels per day. The Bab el-Mandeb Strait is between the Horn of Africa and the Middle East, connecting the Red Sea to the Gulf of Aden and Arabian Sea. Most exports of petroleum and natural gas from the Persian Gulf to Europe and North America pass through multiple chokepoints, including the Suez Canal or the SUMED pipeline and both the Bab el-Mandeb and the Strait of Hormuz.

Volume of crude oil, condensate, and petroleum products transported through the Suez Canal, SUMED pipeline, and Bab el-Mandeb Strait (2018–1H23)
million barrels per day

	2018	2019	2020	2021	2022	1H23
Total oil flows through Suez Canal and SUMED pipeline	**6.4**	**6.2**	**5.3**	**5.1**	**7.2**	**9.2**
crude oil and condensate	3.4	3.1	2.6	2.2	3.6	4.9
petroleum products	3.0	3.1	2.6	2.9	3.6	4.3
LNG flows through Suez Canal (billion cubic feet per day)	**3.3**	**4.1**	**3.7**	**4.5**	**4.5**	**4.1**
Total oil flows through Bab el-Mandeb Strait	**6.1**	**5.9**	**5.0**	**4.9**	**7.1**	**8.8**
crude oil and condensate	**3.0**	**2.7**	**2.2**	**1.9**	**3.3**	**4.5**
petroleum products	**3.1**	**3.2**	**2.8**	**3.1**	**3.8**	**4.4**
LNG flows through Bab el-Mandeb Strait (billion cubic feet per day)	**3.1**	**3.9**	**3.7**	**4.5**	**4.5**	**4.1**

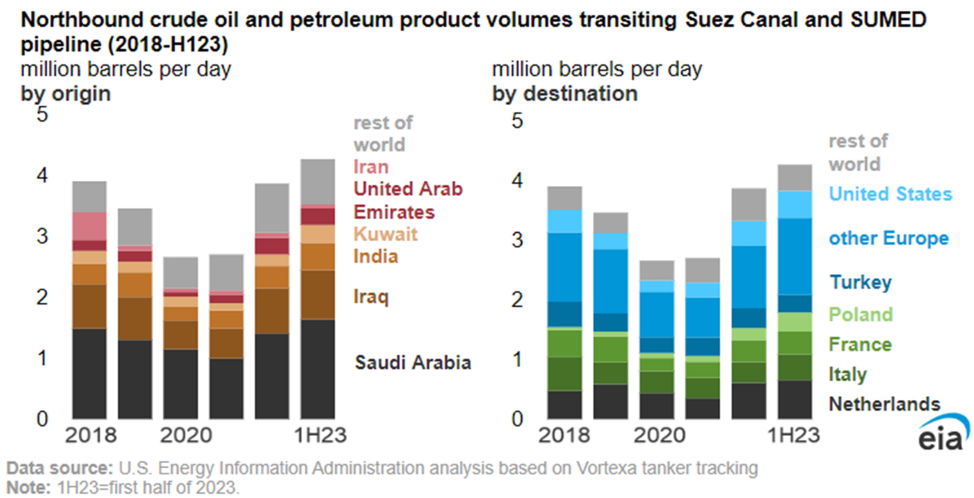
Data source: U.S. Energy Information Administration analysis based on Vortexa tanker tracking
Note: LNG=liquefied natural gas, 1H23=first half of 2023

Oil shipments

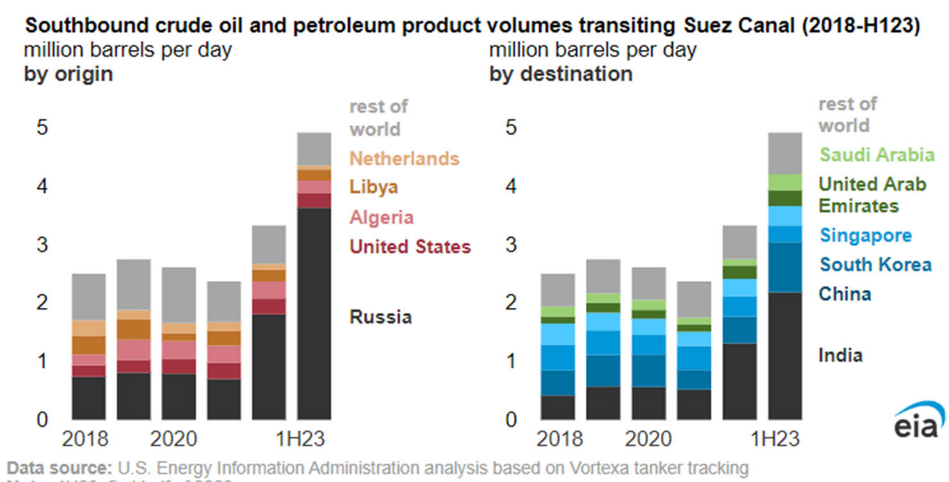
Northbound oil flows toward Europe via the Suez Canal and SUMED pipeline fell between 2018 and 2020. Renewed U.S. sanctions on

Iran reduced all exports from Iran, including those through the Suez Canal. In addition, less crude oil and oil products from Middle East producers moved through the Suez Canal because Europe imported less oil from the Middle East and more from the United States. The COVID-19 pandemic further reduced flows through the Suez Canal because of slowing global oil demand.

In the first half of 2023, northbound crude oil flowing through the Suez Canal and SUMED pipeline had increased by more than 60% from 2020, as demand in Europe and the United States rose from pandemic-induced lows. Also, Western sanctions on Russia's oil beginning in early 2022 shifted global trade patterns, leading Europe to import more oil from the Middle East via the Suez Canal and SUMED pipeline and less from Russia.

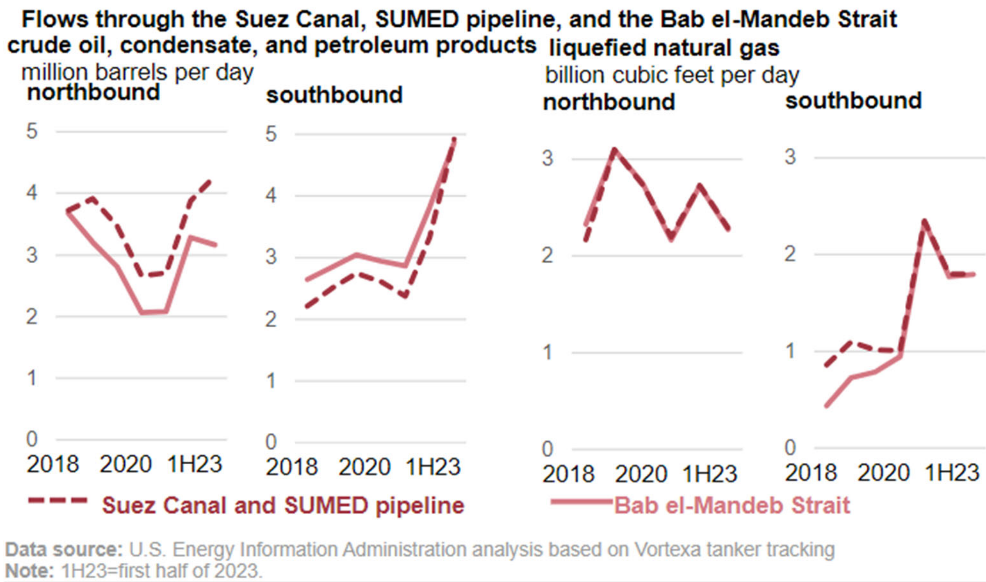


Southbound shipments through the Suez Canal rose significantly between 2021 and 2023, largely because of Western sanctions on Russia's oil exports. Oil exports from Russia accounted for 74% of Suez southbound oil traffic in the first half of 2023, up from 30% in 2021. Most of those export volumes were destined for India and China, which imported mostly crude oil from Russia. The Middle East, primarily Saudi Arabia and the United Arab Emirates, increased imports of refined oil products from Russia in 2022 and the first half of 2023 in order to generate electric power or to store or re-export.



LNG shipments

LNG flows through the Suez Canal in both directions rose to a combined peak in 2021 and 2022 of 4.5 billion cubic feet per day (Bcf/d) before total flows declined in the first half of 2023 to 4.1 Bcf/d. Southbound LNG flows more than doubled from 2020 to 2021, mainly driven by growing exports from the United States and Egypt heading to Asia. In 2022 and the first half of 2023, southbound LNG volumes via the Suez Canal declined as U.S. and Egyptian LNG exports both favored European destinations over Asian markets, supplanting some of the natural gas exports that Russia historically sent to Europe. Most of the variation in northbound volumes reflects changes in Qatar's exports to Europe (via the Suez Canal) compared with Asia. Qatar also sent more LNG to Europe in 2022 to replace some volumes from Russia, increasing northbound flows.



Data source: U.S. Energy Information

Although oil flow trends through the Bab al-Mandeb Strait are similar to those of the Suez Canal, more oil exits the Red Sea (northbound via the Suez Canal and southbound via the Bab el-Mandeb Strait) than enters the Red Sea through these chokepoints. Saudi Arabia transports some crude oil from the Persian Gulf via pipeline to the Red Sea for export mostly to Europe. LNG flows through the Bab el-Mandeb Strait have matched those in the Suez Canal over the last few years because the few LNG import terminals in the Red Sea have been used less.

Principal contributors: Candace Dunn, Justine Barden https://www.apikur.uk/publications/apikur-denies-government-of-iraq-claims-of-a-deal-to-resume-oil-exports-from-iraq-s-kurdistan-region/

02 MAR 2024

APIKUR denies Government of Iraq claims of a deal to resume oil exports from Iraq's Kurdistan Region

APIKUR denies claims by Government of Iraq (GoI) officials that an agreement has been reached among the GoI, the Kurdistan Regional Government (KRG), and international oil companies (IOCs) to resume oil exports through the Iraq-Türkiye Pipeline (ITP).

APIKUR's member companies would welcome the reopening of ITP. Regrettably, to date, we have not even seen any proposals from GoI or KRG for the agreements that would be required to do so.

Recently there have been several unfounded media statements by senior GoI officials that a deal has been reached for IOCs to resume exports through the ITP. We do not understand the motivation for such misinformation but note that Iraq is reportedly losing $1 billion for each month that ITP remains closed.

APIKUR, also, notes that meetings were held in Baghdad on January 7-9, 2024, between representatives of the GoI, the KRG, and IOCs — including representatives of several APIKUR member companies. But, thus far, there has been no concrete progress towards that end presented to the members of APIKUR.

APIKUR member companies stand ready to meet again with GoI and KRG officials to swiftly resolve the issues to the benefit of all.

About APIKUR:

APIKUR's objective and purpose is to promote the KRI as an attractive destination for international oil and gas companies, service providers and investors. In addition, APIKUR aims to advocate for and represent the common interests of its members, function as a joint and effective voice towards all relevant stakeholders whether in the KRI, or elsewhere, and provide a forum for its members to share appropriate public industry information and best practices.

For more information, visit www.apikur.uk

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https://www.rudaw.net/english/business/02032024

Oil producers hope White House can pressure Sudani into resuming exports
yesterday at 01:32

Diyar Kurda@diyarkurda

WASHINGTON DC - The White House has issued an invitation to Iraqi Prime Minister Mohammed Shia' al-Sudani, and an association of oil producers working in the Kurdistan Region is hoping Americans can use that visit to pressure Baghdad into resuming oil exports.

"We know that Prime Minister Mohammed Shia' al-Sudani has been invited to visit the White House and we think that visit will happen after Ramadan, sometime in late April. And before he comes to Washington DC, the prime minister must put in place a budget for the KRG [Kurdistan Regional Government] and create the policy to restore full oil production and exports. This is our belief. And this is also a belief that has been echoed and is supported by many members of the United States Congress," Myles B. Caggins III, spokesperson for the Association of the Petroleum Industry of Kurdistan (APIKUR), told Rudaw in an interview on Thursday.

Kurdistan Region's oil exports were halted on March 25 last year after the Paris-based International Chamber of Commerce ruled in favor of Iraq in a longstanding arbitration case against Turkey. Baghdad and Erbil reached an initial agreement on resuming the exports, but the flow of oil is still halted as there remain disagreements between the oil companies and Baghdad over production costs. The KRG has lost billions of dollars in revenue because of the stoppage.

The international oil producers, including American companies, operating in the Kurdistan Region have requested members of the United States Congress to urge the administration of President Joe Biden to put more pressure on Baghdad to resume oil exports. Last week, once again, Caggins met with members of Congress to discuss the matter.

"We have had a good reaction and well-received from both sides of Congress, Democrats and Republicans. This week I've met with nine different offices. And all of these offices say that they are supportive" of resuming oil exports, said Caggins.

The US State Department has also urged Baghdad and Ankara to resume the exports as oil revenue is critical for the KRG.

"This is an important issue. And we know that the ITP [Iraq-Turkey pipeline] pipeline is really a critical source of revenue for the Kurdistan Regional Government. And it's also important for a number of international oil companies, which does include American companies as well. And so, the United States continues to engage in Baghdad and Erbil and Ankara... to urge all parties to engage in discussions that would allow the pipeline to resume production," US Deputy Assistant Secretary for Iraq and Iran Victoria Taylor told Rudaw in an interview on Wednesday.

If Sudani visits Washington soon, the oil producers are hopeful the White House can exert pressure on him to finally resume exports.

"We're fighting every day to get the oil into the pipeline as soon as possible. And most importantly, we think this is an issue of rights and respect for the constitution. The constitution of Iraq says that the Kurdistan Region can have an economy that is strong and contributing to all of the people in Iraq," said Caggins.

Rudaw: You met different people at Capitol Hill, from both political parties, and you're talking about the Kurdistan oil export stoppage issue. So, what have they told you about that?

Myles B. Caggins: I've been in Washington DC this week fighting on behalf of the people of Kurdistan. We are taking the message to members of the United States Congress, including the Senate and the House of Representatives, to let them know about these important issues affecting people in the Kurdistan Region. There are two big issues. One of them is the budget. We know Baghdad has not enacted, it has not had a budget for people in the Kurdistan Region. The second issue is oil. We want the US Congress to put pressure on Baghdad and also to inform the White House that Baghdad must restore full production and exports of oil.

I want to know about the effectiveness of the US Congress on this issue. We witnessed that last year, and in the past months, they have sent correspondence to the State Department, to the White House, but still the KRG oil exports have not resumed. So how could the Congress help with that issue?

The United States Congress is responsible for creating the budget. We call this appropriations. And in the budget every year there is money designated for Iraq. Right now, in 2024, Iraq will receive more than a billion dollars for military and security assistance, and also around $400 million for humanitarian and stabilization and development assistance. APIKUR has been informing Congress that it is not acceptable for Baghdad to take American tax dollars when Baghdad is refusing to generate its own money from the export of oil from the Kurdistan Region.

And what's their reaction to that?

We have had a good reaction and well received from both sides of Congress, Democrats and Republicans. This week I've met with nine different offices. And all of these offices say that they are supportive of Kurdish issues.

If we talk about this oil issue, are you going to meet the Iraqi oil ministry in the near future to discuss that issue with them?

The international oil companies and APIKUR members are always ready and willing to meet with the Ministry of Oil in Baghdad as well as the Kurdistan Ministry of Natural Resources.

Have any meetings been scheduled with the Iraqi oil ministry?

Currently there are no meetings scheduled but we've seen more statements from the Iraqi oil ministry saying that there are proposals on the table. One time we saw the oil minister say that in three days oil would resume. Here's our view at APIKUR. We know that Prime Minister Mohammed Shia' al-Sudani has been invited to visit the White House and we think that visit will happen after Ramadan, sometime in late April. And before he comes to Washington DC, the prime minister must put in place a budget for the KRG and create the policy to restore full oil production and exports. This is our belief. And this is also a belief that has been echoed and is supported by many members of the United States Congress.

So, what's your core issue with the Iraqi government? Why are they saying that the oil exports will resume in three days, but after three days, it's not happening? What's the core issue? Why can't you resolve it with them?

Well, the central government in Iraq has demonstrated that it is wanting to suppress and repress the Kurdistan Region. We see this in different ways. We see this by them not having a budget, so civil servants are not getting paid. That hurts the economy. Their inability to come up with a resolution for oil to go through the Iraq-Turkey pipeline also hurts the economy of all of Iraq and the KRG. And finally, we have seen the Iranian-aligned terrorist militia groups doing attacks into the Kurdistan Region with drones. And of course, the tragic killing of Peshwa Dizayee and a young baby.

Are you telling me that the Iraqi government is trying to make justifications and use every tool to not let the Kurdistan Region oil exports again because they want to put pressure on the Kurdistan Region? Or are they willing to solve this issue?

We have seen a lot of talk come out of Baghdad and we're ready for those talks to turn into action, because the answer should be simple. One year ago, when the oil was flowing through the Iraq-Turkey pipeline, everything was going fine. There was a billion dollars a month coming into Iraq, and there was money that was available for a budget. And now one year later, the losses have stepped up, there has been more than $10 billion lost. We have seen thousands of jobs in the Kurdistan Region lost from people who are working in the oil industry. And any of the budget issues that Iraq has can be resolved by the sale of oil through the Iraq-Turkey pipeline.

Let's come back to Washington. Do you expect any letters or correspondence from the Congress to the White House and also to the State Department on that issue in the coming days?

The writing of letters will be up to the members of Congress. But I know from some of the meetings I've had that some members of Congress are already talking about preparing correspondence to the White House. And this is a bipartisan issue. Republicans and Democrats are interested. Your viewers, the people who are watching Rudaw TV in Sulaimani, and Erbil, and Choman, and Amedi, they should also know this. In the American Congress. We have more than 40 members of what is called the Kurdish caucus. These are members of the American Congress who are interested in Kurdish people, in Kurdish affairs, and they are supportive of funding for the Peshmerga, they are supportive of investments, economic investments made by America into the Kurdistan Region. So we are talking to all of them, and encouraging them to draft a letter and make statements and have direct communication with Prime Minister Sudani as well as the White House to support the people of Kurdistan Region.

Do you think that this fight is a lost fight or do you still have hope that the KRG oil exports will resume in the near, medium, or far future?

We're fighting every day to get the oil into the pipeline as soon as possible. And most importantly, we think this is an issue of rights and respect for the constitution. The constitution of Iraq says that the Kurdistan Region can have an economy that is strong and contributing to all of the people in Iraq. There have been more than $10 billion invested by international oil companies. And the older people who are watching your network, they will know that there used to not be any oil economy in the Kurdistan Region. And foreign companies have invested $10 billion. It has helped the Region have prosperity and we want to see the Kurdistan Region continue to grow and be a beacon of light in an area, that's attractive in the Middle East.

I will ask my last question. In the coming days Deputy Assistant Secretary Victoria Taylor is going to visit Iraq. What do you expect from her visit? And what do you want from the State Department to be engaged with both Erbil, Baghdad, and Ankara to bring that issue to a resolution?

Well this week in Washington, [KRG] Prime Minister [Masrour] Barzani has been visiting here and met with the secretary of state. He had meetings on Capitol Hill as well as the White House, and we think the Pentagon too. And we are seeing senior American officials and senators going to Baghdad and Erbil. So there's a lot of talking and we think that the more discussion happens between Washington, Baghdad and Erbil that there will be more solutions. So I think the visit of the deputy assistant secretary of state is another sign that America is committed to a strong relationship between the United States and Iraq, as well as the Kurdistan Region.

https://www.rudaw.net/english/business/16022024

Oil producers ask US to discuss Kurdistan exports with PM Sudani

16-02-2024

ERBIL, Kurdistan Region - Oil producers in the Kurdistan Region on Friday called on US officials at the Munich Security Conference to encourage the Iraqi prime minister to reopen the pipeline with Turkey and allow for oil exports from the Kurdistan Region.

In a statement, the Association of the Petroleum Industry of Kurdistan (APIKUR) called for “urgent” action by the US Congress and the White House to facilitate the reopening of the Ceyhan pipeline between Turkey and Iraq.

APIKUR called on US officials present at the Munich Security Conference to use the “prime opportunity” presented by the event to discuss the issue directly with Iraqi Prime Minister Mohammed Shia’ al-Sudani, who is also present.

“Congressional action is imperative to influence Iraqi leaders to immediately resolve oil and budget issues that are harming Iraq’s economy and regional security interests,” APIKUR spokesperson Myles Caggins said.

The Kurdistan Region's oil exports through Turkey's Ceyhan port are yet to resume after being put on hold in late March following a ruling from a Paris-based arbitration court saying that Ankara had breached its 1973 pipeline agreement with Baghdad.

“We request your immediate assistance to pressure the Government of Iraq (GoI) to promptly take the steps required to reopen the Iraqi-Türkiye pipeline that serves as Kurdistan’s economic lifeline,” APIKUR said in a letter to the US House of Representatives on Monday.

Erbil and Baghdad have held numerous meetings since, but to no avail. In December, APIKUR said it had been excluded from the talks.

Before the halt, around 400,000 barrels a day were being exported by Erbil through Ankara, in addition to some 75,000 barrels of Kirkuk’s oil.

The loss in oil revenues, the KRG’s main source of income, has worsened the financial situation and left the government unable to pay its public sector without assistance from Baghdad.

Macau Statistics and Census Service https://www.dsec.gov.mo/ts/#!/step2/KeyIndicator/en-US/243

Arrivals for January 2024

Information from the Statistics and Census Service (DSEC) indicated that visitor arrivals soared by 104.7% year-on-year to 2,861,609 in January 2024, recovering to 83.5% of the level in the same month of 2019; however, the figure represented a drop of 2.8% month-on-month. Same-day visitors (1,480,098) and overnight visitors (1,381,511) leapt by 154.5% and 69.3% year-on-year respectively. Meanwhile, the average length of stay of visitors shortened by 0.4 day year-on-year to 1.2 days, with that of overnight visitors (2.2 days) and same-day visitors (0.2 day) decreasing by 0.4 day and 0.1 day respectively.

As regards source of visitors, visitors from mainland China jumped by 107.3% year-on-year to 2,056,133 in January, with those travelling under the Individual Visit Scheme (1,116,184) rising by 57.8%. Visitors from the nine Pearl River Delta cities in the Greater Bay Area hiked by 68.6% year-on-year to 1,025,451. Besides, visitors from Hong Kong (546,277) and Taiwan (59,921) grew by 53.0% and 217.6% year-on-year respectively. The numbers of visitors from Mainland, Hong Kong and Taiwan in January 2024 rebounded to 82.1%, 102.3% and 69.0% of the corresponding levels in the same month of 2019.

International visitors totalled 199,278 in January 2024, back to 66.4% of the figure in the same month of 2019. Regarding the Southeast Asian markets, number of visitors from the Philippines (34,102) exceeded the level in January 2019, rising by 24.3%. Numbers of visitors from Indonesia (13,961), Thailand (13,608) and Malaysia (10,997) returned to 86.9%, 93.1% and 66.2% of the corresponding levels in January 2019. With respect to the Northeast Asian markets, numbers of visitors from the Republic of Korea (50,552) and Japan (10,646) recovered to 50.8% and 34.8% of the respective levels in the same month of 2019. As regards long-haul markets, visitors from the USA (10,922) rebounded to 66.2% of the level in January 2019.

Analysed by checkpoint, number of visitor arrivals by land hiked by 96.5% year-on-year to 2,265,185 in January 2024; among them, 49.2% arrived through the checkpoint of Border Gate (1,115,094), 29.6% came via the Hong Kong-Zhuhai-Macao Bridge (670,776) and 14.9% via the Hengqin port (337,760). Meanwhile, visitor arrivals by sea (352,564) and by air (243,860) showed respective growth of 135.6% and 156.3% year-on-year.

2024/02/23

https://www.globaltimes.cn/page/202401/1306103.shtml

China braces for Spring Festival travel rush with record 9 billion passenger trips expected

By Xiong Xinyi and Tu Lei

Published: Jan 25, 2024 10:34 PM Updated: Jan 25, 2024 11:38 PM

The chunyun or Spring Festival travel rush for 2024 - the world's largest annual human migration - officially starts on Friday, and is expected to set a new record of 9 billion passenger trips during the 40-day travel peak. From jam-packed transportation hubs to the hustle and bustle seen in markets nationwide, the anticipated booming Chinese New Year holidays are poised to continue the country's steady recovery while ushering in a lively 2024.

At the Beijing Capital International Airport on Thursday, crowds of tourists were seen in the departure hall, children and parents were holding hands waiting for checked luggage at the counter, and Year of the Dragon stickers were also pasted on glass doors, adding to the coming Chinese Lunar New Year atmosphere.

The airport will see 7.2 million passenger trips during chunyun, a growth of more than 60 percent from the same period of 2023, the airport said on Thursday, adding that overseas passenger flow will reach 1.41 million passenger trips following the implementation of visa reciprocity policies between China and many countries.

The scene witnessed by the Global Times at the airport is just a snapshot illustrating the brisk personnel flow nationwide at one of the busiest times of the year in China. Observers expected the travel rush to boost consumption for the upcoming holidays, which will inject fresh vitality and bolster the country's economic progress in 2024.

Flourishing consumption

A retired white-collar worker surnamed Yin from Southwest China's Chongqing Municipality recently completed a self-driving road trip in South China's Hainan Province with her family. Yin told the Global Times on Thursday that she had already experienced a tourism boom with crowds of visitors and packed restaurants even before the holidays officially kicked off, adding that the well-constructed roads and convenient infrastructure facilities have elevated the traveling experience.

Propelled by the record-high personnel flow and China's steady economic recovery, both domestic and international tourism is set to become major driving forces spurring consumption.

China and Singapore on Thursday agreed on mutual visa exemption which will officially come into effect on February 9, 2024 - the eve of the Chinese New Year, as ordinary passport holders from both sides will be able to enter each other's countries without visa requirements for activities including tourism for 30 days.

Searches for hotels in Singapore on Chinese online travel platform Qunar.com surged four times after the two countries announced the decision, the company told the Global Times on Thursday. Meanwhile, Tongcheng Travel told the Global Times that Singapore-related searches rose by more than 340 percent on the platform within an hour after the visa-free policy announcement.

Domestic tourism is also thriving, represented by the sparkling ice-snow trips in popular cities such as Harbin in Northeast China's Heilongjiang Province. Bookings for products related to winter tourism on Trip.com for the holidays increased by more than 10 times year-on-year, the company told the Global Times in a recent statement.

The record-high chunyun reflected China's rapid development in transportation construction amid its advancing economic recovery, Jiang Yiyi, deputy head of the School of Leisure Sports and Tourism at Beijing Sport University, told the Global Times on Thursday.

Jiang emphasized that activities related to the cultural sector such as visiting museums will also play a significant role in promoting consumption.

In addition, consumption themed around the Chinese New Year's holidays has also been jacked up. Restaurants have been busy taking bookings for traditional Spring Festival reunion dinners, while e-commerce platforms saw sales surging as consumers stocked up on holiday necessities, according to media reports.

Among the 9 billion passenger trips, around 1.8 billion will be made through rail, road, aviation and water transportation, while the remaining 7.2 billion trips are expected to be self-driving trips, according to recent data released by the Ministry of Transport.

China's railway system already saw a pre-Spring Festival ticket sales peak with 61.08 million tickets for chunyun sold since January 12, a year-on-year increase of 159 percent, China State Railway Group Co said in a statement sent to the Global Times on Wednesday.

Amid the expected record-breaking chunyun, domestic carriers have ramped up efforts to ensure transportation capacity.

Air China said on Tuesday that it plans to arrange 67,691 flights during the 40-day travel peak with an average of 1,693 flights per day, an increase of 32 percent compared with 2019 and 40.6 percent compared with 2023. Meanwhile, four homegrown C919 aircraft from China Eastern Airlines will also be serving the travel rush. The four planes will fly routes between Beijing and Shanghai, and Shanghai and Chengdu in Southwest China's Sichuan Province, the first time the aircraft is being used for the Spring Festival travel.

Vital momentum to last in 2024

Consumption played an indispensable role in bolstering China's economic growth in 2023, with the final consumption contributing to 82.5 percent of GDP growth, official data showed. Experts noted that the momentum will extend into 2024 with optimistic outlooks, while the consumption boom for the Chinese New Year holidays will become an essential engine driving economic growth in the first quarter.

The recently released GDP data from multiple Chinese provinces and cities have showcased the uplifting achievements realized nationwide, while last year's considerable economic growth rate will lay a solid foundation for this year's economic expectations, Cong Yi, a professor at the Tianjin School of Administration, told the Global Times on Thursday.

Shanghai's GDP expanded by 5 percent year-on-year in 2023, while Guangdong's GDP passed 13 trillion yuan ($1.83 trillion) for the first time, according to the "report cards" released by the local governments.

Meanwhile, Cong highlighted the culture-infused tourism boom as an example of the country's continuous upgrading in consumption structure, further adding to optimistic expectations for the coming year.

In 2023, the consumption sector, especially the services industry, contributed primarily to the GDP growth rather than the primary and secondary industries, Cao Heping, a professor of economics at Peking University, told the Global Times on Thursday.

Data from the National Bureau of Statistics showed that the growth of retail sales of services increased by 20 percent year-on-year last year, while the catering sector achieved a revenue exceeding 5 trillion yuan for the first time.

Cao noted that developing consumption-related investment along with relevant industries will be a major focal point for China's economic transformation.

Cao said that holiday consumption is set to hugely boost GDP growth for the first quarter of 2024. He added that if the GDP growth rate for the first quarter exceeds 5.2 percent and can get close to 5.5 percent, then the growth rate for 2024 is very like to approach 5.5 percent, higher than the estimate of 4.6 percent projected by some foreign institutions.

The world's second-largest economy posted a GDP growth of 5.2 percent for 2023, successfully meeting the previously set annual target and aligning with market forecasts.

Caixin China General Manufacturing PMI®

Business conditions continue to improve slightly in February

Chinese manufacturers signalled a sustained improvement in operating conditions midway through the first quarter of 2024, according to latest PMI® data. Companies noted further upturns in both production and new work, with rates of growth quickening slightly from January, helped in part by a rise in new export orders. The business mood also brightened, with confidence around the year-ahead outlook for output reaching a ten-month high. However, firms maintained a cautious approach to staff numbers, which fell marginally in February.

Turning to prices, average input costs rose at the weakest rate in seven months and only fractionally. Average selling prices meanwhile fell slightly as firms looked to attract and secure new business.

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 – edged up from 50.8 in January to 50.9 in February, to signal another marginal improvement in the health of the sector. Business conditions have now strengthened in each of the past four months, with the latest PMI reading the best recorded since August 2023.

Helping to nudge the headline index higher was a slightly quicker rise in manufacturing production across China during February. Though modest, the rate of output growth was the fastest seen since May 2023, with companies generally attributing this to a sustained improvement in market conditions and greater new order volumes.

The total amount of new work placed with Chinese goods producers also rose at a quicker pace in February, albeit one that remained marginal overall. The upturn was partly driven by a second successive monthly increase in new export business, albeit only slight, with firms citing an improvement in underlying global demand conditions.

The sustained rise in production led firms to expand their purchasing activity again in February. Though modest, the rate of growth was the most pronounced since March 2023. As a result, inventories of purchased items also increased in February, and at the fastest pace since late-2020. In contrast, stocks of finished items fell for the first time since last June, which was often linked to the fulfilment of orders.

After a slight improvement at the start of 2024, goods producers recorded a fractional deterioration in average vendor performance in February. According to panellists, transportation delays had constrained lead times.

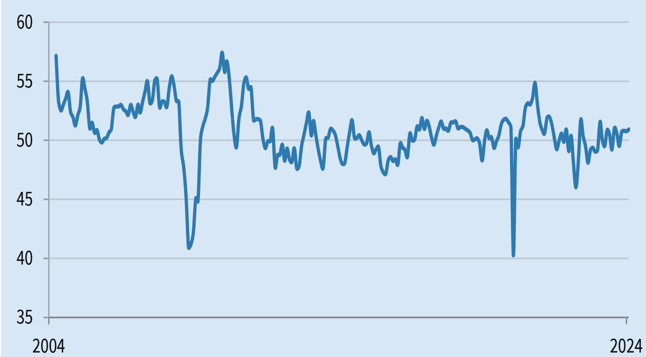
With output expanding at a faster rate than new work, firms registered another decline in unfinished business during February. This was despite a further reduction in headcounts across the manufacturing sector, as company restructuring efforts and cost considerations weighed on hiring decisions. That said, the rate of job shedding remained marginal overall.

The rate of cost inflation continued to slow across China's manufacturing sector during February. Notably, input prices rose at a fractional pace that was the weakest in seven months. Companies meanwhile cut their selling prices slightly for the second month in a row as part of efforts to stimulate new business.

Chinese manufacturers expressed the strongest degree of optimism towards the one-year outlook for output since April 2023. Expectations were often buoyed by forecasts of firmer global economic conditions, new product lines and investment in new equipment.

China General Manufacturing PMI

sa, >50 = improvement since previous month



Sources: Caixin, S&P Global PMI

Key findings:

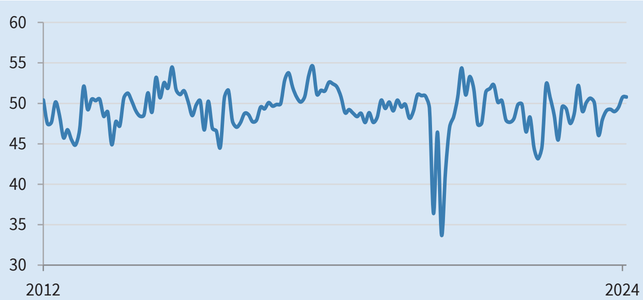
Firms signal sustained increases in output and new orders

Business optimism strengthens for second straight month

Input cost inflation edges down to seven-month low, selling prices fall

New Export Orders Index

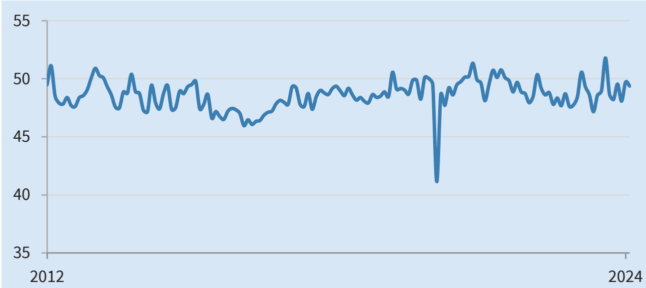
sa, >50 = growth since previous month



Sources: Caixin, S&P Global PMI

Employment Index

sa, >50 = growth since previous month



Sources: Caixin, S&P Global PMI

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

"The Caixin China General Manufacturing PMI ticked up 0.1 of a point in February from the previous month to 50.9, keeping the index in growth territory for the fourth straight month. That indicated a sustained improvement in the sector.

"Supply and demand continued to expand. Growth in production along with domestic and overseas demand accelerated at different paces amid the market upturn. In February, gauges for manufacturers' output, total new orders, and new export orders picked up between 0.1 and 0.3 of a point, with the last indicator reaching a 12-month high.

"Employment was subdued. The improvement in the market failed to turn around the contraction of the job market, with companies under pressure to reduce costs while enhancing efficiency.

"The increase in workforces at consumer goods producers was unable to offset the decline in the staff of investment goods and intermediate goods manufacturers. Manufacturing employment shrank for the sixth straight month, with the corresponding subindex coming in lower than in January.

"Because growth in demand lagged increases in production, existing capacity was sufficient to absorb additional orders, leading to a slight decrease in backlogs of work.

"Price levels were weak. Some surveyed companies reported an increase in raw material prices, but input costs overall remained stable. The corresponding gauge fell to the lowest since July, though it remained in expansionary territory.

"Manufacturers faced greater pressure on sales as intense market competition limited their bargaining power, resulting in their output prices declining for a second straight month.

"Supplier logistics were slightly delayed. Affected by poor weather in some regions, logistics efficiency fell accordingly, with suppliers' delivery times increasing slightly. Manufacturers' purchases and inventories of raw materials increased as a result of active production, with the gauge for inventories hitting the highest since November 2020.

"Market optimism continued to grow, with the measure for future output expectations hitting the highest since April as some surveyed companies anticipated a global economic recovery and increased demand at home and abroad in the new year.

"Overall, the manufacturing sector continued to improve in February. Sustained expansion in supply and demand resulted in increased purchases, rising stocks of raw materials and greater optimism. However, the job market continued to shrink, which, along with depressed prices, indicated that deflationary pressures persisted.

"The Caixin China manufacturing PMI showed the sector has grown for four straight months. That's the first time that has happened since the second half of 2021, indicating an overall economic recovery.

"However, the economy still faces headwinds with unfavorable factors and uncertainties remaining prevalent. This was reflected by total new orders growing more slowly than output, and subdued prices on both the production and sales sides. In addition, domestic and foreign demand remained insufficient while employment continued to contract, showing businesses retained a cautious approach to hiring and suggesting optimistic expectations need further consolidation.

"At the start of 2024, policymakers doubled down on measures aimed at stabilizing growth and strengthening market confidence, which was conveyed through a series of meetings hosted by local governments after the Lunar New Year holiday. Looking ahead, the focus should be on the effectiveness of the measures. Further efforts may be required to improve people's livelihoods and market expectations."

***"But now you're starting to see [Oil] demand revisions upwards, and people saying, you're hearing the phrase upside risk a lot more than you have in the past couple years". "a lot of that is financial markets, financial players, macro players still looking at this saying do we really buy into this demand story, that at least the physical market is telling us."* Trafigura Chief Economist Rahim.**

SAF Group created transcript of comments by Trafigura Chief Economist Saad Rahim with Bloomberg's Anna Edwards, Guy Johnson, and Kriti Gupta on Bloomberg Markets Today Feb 28, 2024. [LINK]

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

At 0:15 min mark, Rahim "*I think the fact that rates are closer to 5% than they are to 3% sort of tells you everything you need to know about this market right now is that people are upgrading their growth forecasts. And in particular in demand, that's really been the key theme from the first few days of this week here, at IEE week this year, is that people came into this year expecting a balanced market. 1.1 mmb/d demand growth, about half of what we got last year, and about 1.1 mmb/d of non-OPEC supply. So that sort of suggested that OPEC would need to keep the cuts in place for a long time. But now you're starting to see demand revisions upwards, and people saying, you're hearing the phrase upside risk a lot more than you have in the past couple years. And again even for last year, I think the key story was always demand fears, growth fears, growth angst. And one of the best indicators where oil prices were going was the 2/10 spread, because that was people's proxy for recession risk. As we start to move away from that, as you say the US economy looks like its still very much on fire despite 525 basis points of hikes, you know, we're looking at a very different picture I think for the rest of the year."*

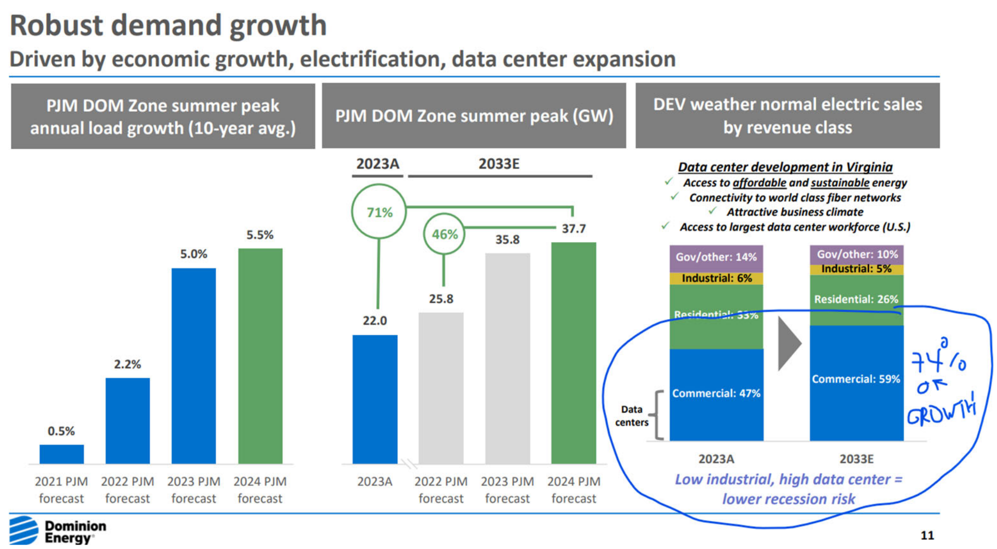
At 1 45 min mark, Rahim "*but I think really we're saying if we look at that, that's telling you this market does feel relatively tight. And you can look at a number of other physical market indicators – strength in Asia, strength in the US , but even to me strength in Europe as well. So the fact that what we call flat price of Brent really hasn't moved to the higher, or WTI hasn't really moved thru $80. I think that a lot of that is financial markets, financial players, macro players still looking at this saying do we really buy into this demand story, that at least the physical market is telling us*. "

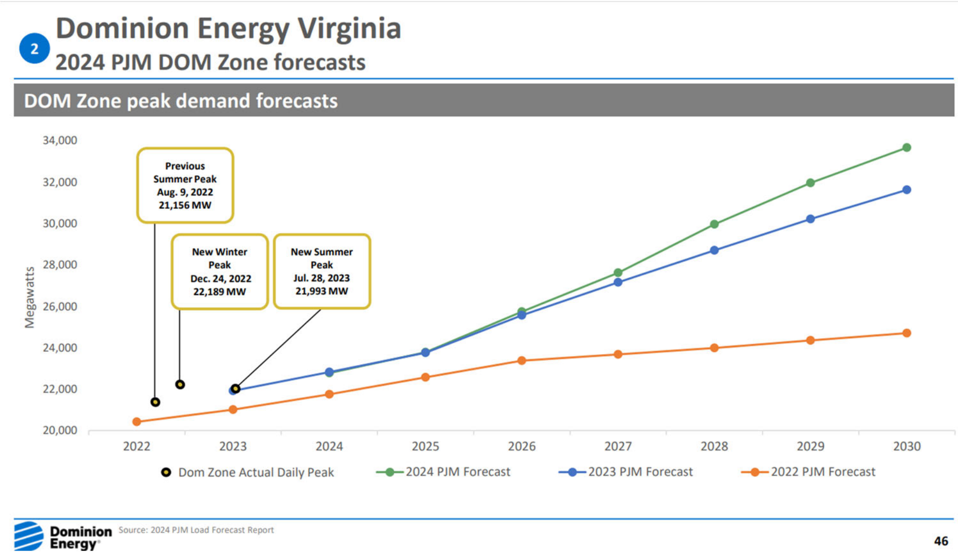
Will Saudi and others be allowed to pump more barrels on the market, at 7:55 min mark, Rahim "*I think if it's coming from a demand side response, I think then potentially they could start to discuss that. June, which is their next meeting, the next time they would adjust relly production, I think maybe that's a little bit early for them to do that. But you know if you're saying demand growth is now, instead of the 1.1 that people were expecting, maybe it is 1.7, 1.8. If it's something like that, if it's like that and that's why prices have moved higher. Rather than just a supply side response, which may be temporary, you don't want to bring barrels back in too early if it's just a supply side issue. Right. But if it's a demand and it looks like it's actually holding up and its structural, then you can start to think about adding some of those barrels back."*

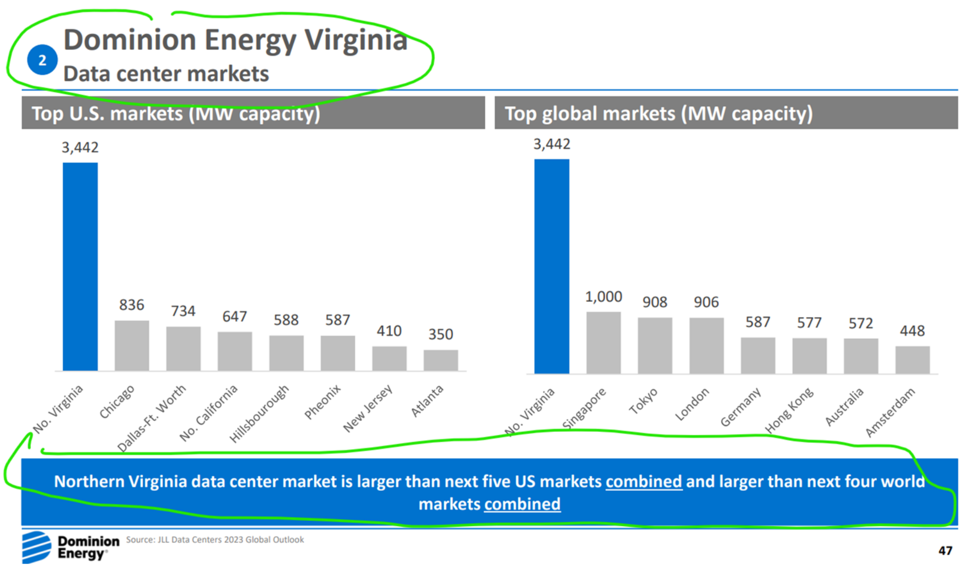
Prepared by SAF Group https://safgroup.ca/news-insights/

Excerpt Dominion Energy Business review investor meeting March 1, 2024
https://s2.q4cdn.com/510812146/files/doc_downloads/2024/2024-03-01-business-review-investor-slides-vTC.pdf

Reminder "DEV" is Dominion Energy Virginia







2

Dominion Energy Virginia

Benefits for data centers in Virginia

Lower ○→● Higher

Benefits	Description	Impact
Fiber backbone	Northern Virginia **has densely packed fiber backbones** and access to 4 subsea fiber cables near Virginia Beach (MAREA, BRUSA, SAEx, Dunant)	
Affordable energy	Data center electricity costs are ~30% cheaper than the U.S. average in Northern Virginia, driving data center providers to Virginia due to significant cost savings	
Attractive business climate	Virginia enacted **tax subsidies and fast track approval processes** for data center business	
Ideal location	**Proximity to economic centers** on East Coast and Federal government; located near water sources plus **limited risk of natural disasters**	
Technical workforce	**Around 25% of jobs in Northern Virginia's largest county are tech related**	
Network effects	Loudoun County **hosts more than 3,500 companies in their data centers**. Others likely to follow due to the benefit of network effects	

2

Dominion Energy Virginia

Generative A.I. power consumption

	Typical data center without A.I. demand	Data center supporting A.I. in Training phase	Data center supporting A.I. in Inference phase
Description	CPU-based servers	High-powered GPU-based servers	CPU/GPU-based servers
Rack power density	6-12 kW	▲▲ 26-80 kW	▲ 12-40 kW
Processors used	CPUs (Intel Xeon)	Nvidia H100 + Google TPU	Nvidia H100 + Nvidia L40s, Intel Xeon
Power load variability	Limited	▲ Higher	▶ Limited
Share of Gen AI market	N/A	Today: ~80% End State: ~20%	Today: ~20% End State: ~80%
Latency requirements	Varies	Minimal requirements	Stringent requirements
Likelihood to be deployed in Northern Virginia	High	Medium	High

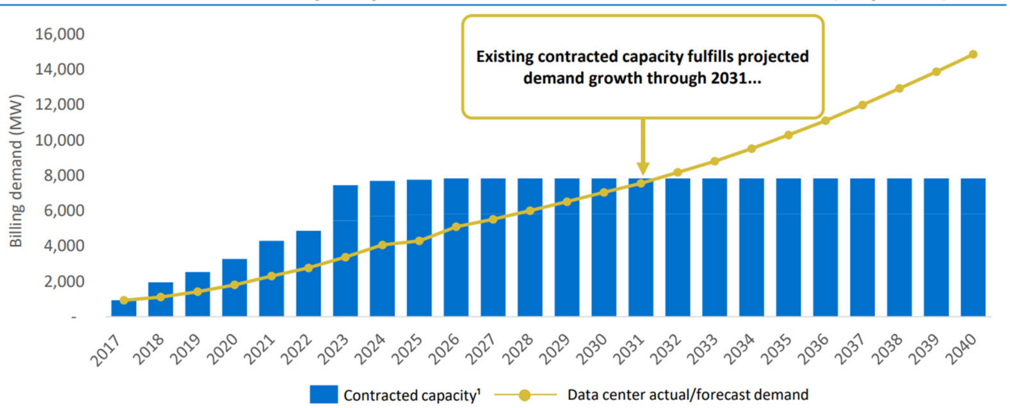
Key: relative power usage vs. typical workloads:

- ▲▲ Well above
- ▲ Above
- ▶ Comparable

2

Dominion Energy Virginia

Data center contracted capacity vs. data center actual/forecast demand (July 2023)



...In addition, over 8,500MW (not shown) of requests for detailed engineering (at customer expense) are underway

X

Excerpt from Dominion Energy's filed "*Commonwealth of Virginia, ex rel. State Corporation Commission, In re: Virginia Electric and Power Company's 2023 Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq. Case No. PUR-2023-00066*" https://cdn-dominionenergy-prd-001.azureedge.net/-/media/pdfs/global/company/2023-va-integrated-resource-plan.pdf?rev=ef1a3f88f0704539968b6d9d86444bde

Figure 5.1.1.2 – 2022 Actual Capacity Mix

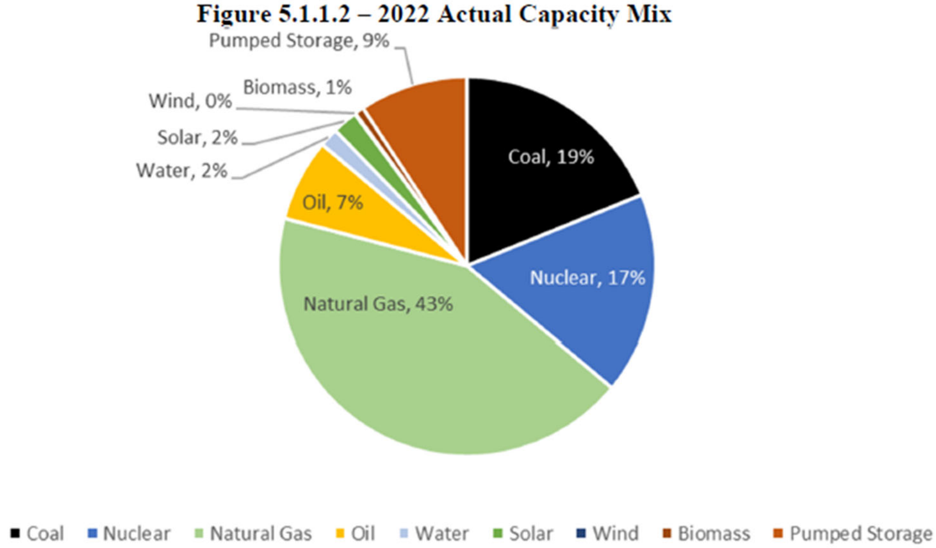
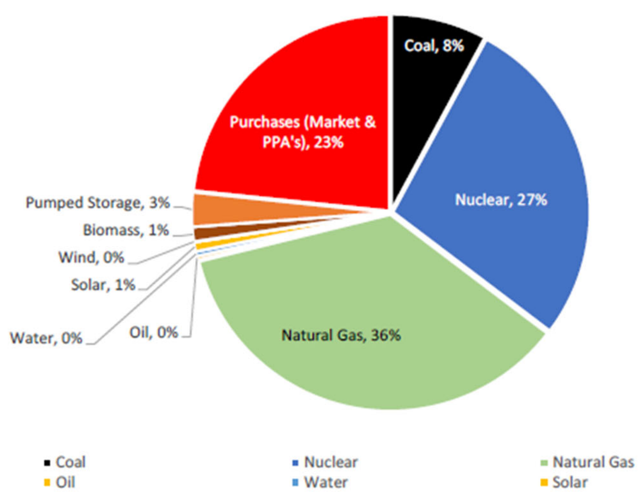


Figure 5.1.1.3 – 2022 Actual Energy Mix



Appendices 5A through 5E provide basic unit specifications and operating characteristics of the Company's supply-side resources, both owned and contracted. Appendix 5F provides a summary of the existing capacity by fuel class. Appendices 5G and 5H provide energy generation by type and by the system output mix. Appendix 5I provides a list of all Company-build or third-party PPA solar and wind generating facilities placed in service, under construction, or under development since July 1, 2018. Appendix 5O provides a list of renewable energy resources, and https://www.shiftaction.ca/news/2024/2/27/new-report-canadas-largest-pensions-are-moving-too-slowly-to-address-the-climate-crisis#:~:text=Shift%20Action%20for%20Pension%20Wealth%20and%20Planet%20Health,a%20project%20of%20MakeWay%20Canada.%20-%2030%20-

NEW REPORT: Canada's largest pensions are moving too slowly to address the climate crisis

Shift ReportsShift media release

Feb 27

NEW REPORT: Canada's largest pensions are moving too slowly to address the climate crisis.
Documented pattern of Canadian pension executives ignoring stranded asset risks, while Canadian pension managers lag behind international peers

Toronto, ON | Traditional territories of the Huron-Wendat, Anishnaabeg, Haudenosaunee, Chippewas and Mississaugas of the Credit First Nation - Today, Shift released its annual ***Canadian Pension Climate Report Card***, an independent benchmark for evaluating the quality, depth and credibility of climate policies for 11 of Canada's largest pension managers.

This second edition finds that despite incremental progress, Canadian pension funds remain off track, especially compared to international peers. Far more work is needed to ensure Canadian pension managers fulfill their fiduciary duty to invest in plan members' long-term interests and protect Canadians' retirement security in a pathway aligned with the Paris Agreement goal of limiting global heating to 1.5°C.

"Despite a summer that saw smoke-filled skies blanket Canadian cities and some of the worst air quality in the world, last year most of Canada's pension managers acted as though climate action is not an urgent concern," said Laura McGrath of Shift Action for Pension Wealth & Planet Health. "For the majority of Canadian pensions, there is a mismatch between the incremental pace of climate progress and the need for urgent action to prevent irreversible climate breakdown. What more will it take for Canadian pensions to recognize that their legal mandates will be impossible to fulfill in the long-term unless the climate is stabilized at safe temperatures?"

Four of the eleven Canadian pension funds in the report still do not have emissions reduction targets for 2030 or 2050. Developing and implementing credible, climate-aligned plans is urgently needed to protect both Canadian pensions and the wider financial system from the worsening climate crisis.

Shift's benchmark measured incremental progress from most Canadian funds in 2023. The biggest improvements came from the Ontario Municipal Employees Retirement System (OMERS) and the Healthcare of Ontario Pension Plan (HOOPP), funds that were previously far behind but in 2023 finally released climate strategies. The Canada Pension Plan Investment Board (CPPIB), on the other hand, was the only fund manager with *lower scores* in 2023, due to a pattern of problematic public statements and new fossil fuel investments that are not aligned with a credible, science-based net-zero plan.

Canadian pensions, CPPIB in particular, continue to flow billions in Canadians' retirement savings into the primary cause of the crisis: fossil fuels. Rather than heeding expert advice from the International Energy Agency and acknowledging the scientific consensus on the need for the phase-out of fossil fuels, pension managers continue to place high-risk bets against a safe climate future. Shift's report documents a pattern of pension fund executives and boards clinging to dangerous myths about the future role of oil and gas in the energy transition. This risks pension members' retirement savings becoming tied up in stranded assets.

Perhaps Canadian pension funds' penchant for fossil fuels should not be surprising. The report found seven of the 11 pension managers analyzed have at least one director/trustee who is concurrently a director or executive of a fossil fuel company.

Behind international peers

The report also evaluates and contrasts three leading international pension funds investing on behalf of members in the United States, France, and the Netherlands, revealing that even the highest-ranked Canadian funds continue to lag their international peers.

“Leading international pension funds recognize there is no credible or profitable pathway for engaging fossil fuel producers to act in line with climate safety,” said Patrick DeRochie of Shift Action for Pension Wealth & Planet Health. “These international funds have each moved to screen out new fossil fuel investments while phasing-out existing holdings, shifting an increasing share of capital into safer, cleaner and rapidly growing investments in climate solutions. Canadian pension managers need to catch up – and stop pouring members' retirement savings into companies that are accelerating the climate crisis.”

While many Canadian pension funds put increased emphasis in 2023 on climate engagement of held companies, the quality and ambition of these engagement strategies varied widely. Effective climate engagement is an essential tool for pension funds to align their portfolios with climate safety, but few funds are realistic about its limitations. Short of a managed phase-out of production and early retirement of assets, alongside plans to return capital to shareholders, fossil fuel companies do not have credible or profitable Paris-aligned transition pathways. The UN Secretary-General's High-level Expert Group on Net-Zero Commitments, chaired by former Environment Minister Catherine Mckenna, has been clear that non-state actors “cannot claim to be net zero while continuing to build or invest in new fossil fuel supply.”

As the global climate crisis worsens and the energy transition ramps up, Canada's pension managers must rethink the ways they invest the retirement savings entrusted to them.

Managing the associated risks and opportunities requires pension managers to develop and implement credible climate plans and policies that defensively guard against losses, proactively capture opportunities, and fully align their overall investment and stewardship strategy with climate science.

Read the full report and analysis here.

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Patrick DeRochie, Senior Manager
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Shift Action for Pension Wealth and Planet Health is a charitable initiative that works to protect pensions and the climate by bringing together beneficiaries and their pension funds to engage on the climate crisis. Shift is a project of MakeWay Canada.

https://ca.finance.yahoo.com/news/canadas-22t-pension-sector-increasingly-excluding-oil--gas-report-110001037.html

Canada's $2.2T pension sector increasingly excluding oil & gas: report

Nearly half of the 11 Canadian pension funds included in the report have partial exclusions on fossil fuels. (THE CANADIAN PRESS/Jeff McIntosh) (The Canadian Press)

More funds in Canada's $2.2 trillion pension sector put exclusions on oil and gas investments in 2023, according to a new report. However, Shift Action for Pension Wealth and Planet Health (SHIFT) says the Canadian industry's "incremental progress" on climate change last year falls short of changes by U.S. and European peers.

SHIFT monitors the fossil fuel and climate-related investments of Canadian pension funds. In its second annual "report card," the sustainable finance charity reviewed 11 of Canada's largest pension managers, including the so-called "Maple 8," which collectively manage retirement savings on behalf of over 27 million Canadians.

"Despite a few encouraging examples of leadership, Canada's largest pension funds continue to invest their own members' retirement savings in companies that are accelerating the climate crisis," SHIFT wrote in the report released on Tuesday.

"Canada's pension sector remains misaligned with the scientific imperative to limit global heating to as close to 1.5 degrees celsius as possible, in-line with the goals of the Paris Agreement."

SHIFT says eight of the 11 funds in its report have committed their portfolios to reach net-zero emissions by 2050 or sooner. However, even Canada's most climate-aligned pension funds, Caisse de dépôt et placement du Québec (CDPQ), and University Pension Plan (UPP), were found to lag international peers.

Those include New York City Public Pensions and France's Ircantec, which received "A-" grades in the report. CDPQ and UPP received "B+" grades. Alberta Investment Management Corporation (AIMCo) ranked last in 2023 for the second time, receiving a "D" grade. Companies were evaluated on alignment with the Paris climate target, as well as other factors, like interim emissions targets, and fossil fuel investment exclusions.

SHIFT says Ontario Municipal Employees Retirement System (OMERS) and the Healthcare of Ontario Pension Plan (HOOPP) showed the most progress in 2023. Each fund announced limited fossil fuel exclusions from their investment portfolios last year, joining UPP, Investment Management Corporation of Ontario (IMCO), and CDPQ, which says it has "essentially completed" its divestment of oil producers, according to SHIFT's report.

"Exclusions on new investments in some fossil fuels are becoming increasingly common amongst Canadian pension funds," the authors wrote. "Alarmingly, some Canadian pension funds chose to increase their exposure to high-risk fossil fuels in 2023."

SHIFT points to British Columbia Investment Management Corporation's (BCI) deal to increase its stake in a U.K. natural gas transmission transmission business, as well as CPPIB's deal to buy a stake in a major Califorinia oil producer.

Lisa Baiton, CPPIB's former head of global affairs, now CEO of the Canadian Association of Petroleum Producers, recently spoke to *Yahoo Finance Canada* about her views on institutional investment in the oil and gas industry.

"It's really terrific that there are institutions like my former employer who have publicly acknowledged that it is possible to have meaningful net-zero commitments, while concurrently acknowledging that global demand for all sources of energy is going to continue for decades to come, [and] that have continued to unapologetically support the entire energy spectrum," she said in an interview.

SHIFT gave CPPIB a "C-" grade in its report.

"CPPIB stands out as the biggest investor in and defender of fossil fuel investment in the Canadian pension sector," the authors wrote. "CPPIB appears to have an ideological commitment to fossil fuel investment."

https://www.cppinvestments.com/public-media/headlines/2021/cpp-investments-highlights-importance-of-decarbonizing-hard-to-abate-sectors-in-addressing-climate-change

CPP Investments highlights importance of decarbonizing hard-to-abate sectors in addressing climate change

• CPP Investments releases position outlining investors' role in enabling an economy-wide evolution to a low-carbon future
• Introduces new investment approach that will identify, fund and support companies in their effort to decarbonize

Toronto, CANADA (December 15, 2021) – Helping essential, high-emitting businesses decarbonize is critical to addressing climate change, according to a recent perspective published by Canada Pension Plan Investment Board (CPP Investments). The perspective, "Investing to enable an economy-wide evolution to a low-carbon future," highlights the opportunity decarbonization presents for long-term investors, noting the need to address a particularly serious obstacle to decarbonization: strategic sectors that are essential, high-emitting and hard-to-abate.

The perspective also outlines CPP Investments' new investment approach which aims to identify, fund and support companies that are committed to creating value by lowering their emissions over time, consistent with CPP Investments' time horizon advantage.

"High-emitting companies that successfully navigate the economy-wide evolution to a low-carbon future will preserve and deliver embedded value for patient long-term investors like CPP Investments," said Deb Orida, Global Head of Real Assets & Chief Sustainability Officer. "This new investment approach complements the Fund's ongoing commitment to investing in companies that have the potential to develop innovative climate technologies around the world and furthers our existing capabilities in technologies that enable the energy evolution."

Strategic sectors that are essential, high emitting and hard-to-abate within this investment approach include agriculture, chemicals, cement, conventional power, oil and gas, steel and heavy transportation. The successful decarbonization of these sectors is not only essential to meet wider net-zero ambitions, but also to sustain economic growth, stability and a responsible transition. CPP Investments plans to work in partnership with like-minded companies, industry leaders, investors, and other interested parties to build out a dedicated investment approach to support current and future portfolio companies in their evolution.

CPP Investments also released a related perspective today focusing on an additional key element of sustainable investing, "Financing a greener future," highlighting green bonds as part of the Fund's approach to deploying capital for projects with environmental benefits. The paper outlines how for green bonds to go from a fast-growing niche to a mainstream offering, standards will have to grow out of a mix of evolving draft rules into something closer to the bond market's extant framework for governing how debt is rated, issued and evaluated for performance. The imperative is to improve green bond standards and practices quickly. Doing so can help the financial sector realize its enormous potential for guiding capital toward investments that support the transition to a low-carbon economy while also boosting returns. In 2018, CPP Investments was the world's first pension fund to issue green bonds and has floated six more issuances since.

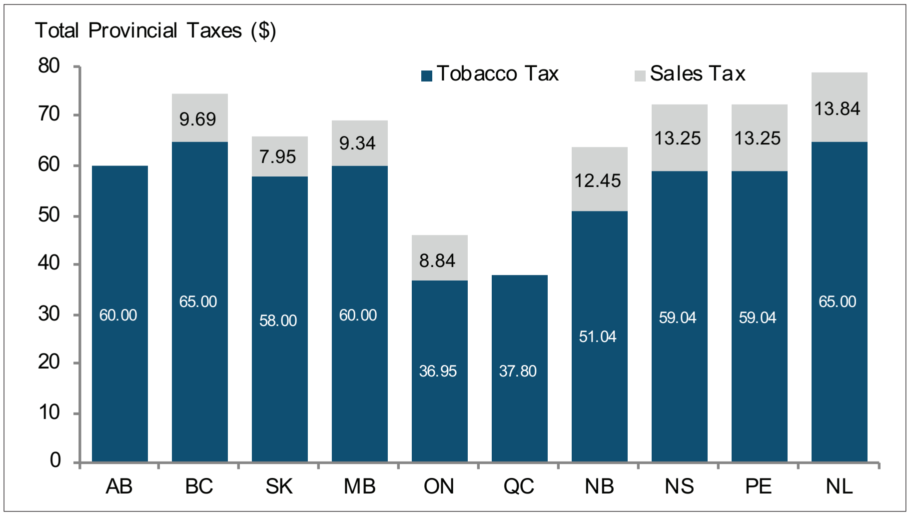
For more information, the "*Investing to enable an economy-wide evolution to a low-carbon future*" perspective can be found on the CPP Investments website here. The "*Financing a greener future*" paper can be found here.

About CPP Investments

Canada Pension Plan Investment Board (CPP Investments™) is a professional investment management organization that manages the Fund in the best interest of the more than 20 million contributors and beneficiaries of the Canada Pension Plan. In order to build diversified portfolios of assets, investments are made around the world in public equities, private equities, real estate, infrastructure and fixed income.

Headquartered in Toronto, with offices in Hong Kong, London, Luxembourg, Mumbai, New York City, San Francisco, São Paulo and Sydney, CPP Investments is governed and managed independently of the Canada Pension Plan and at arm's length from governments. At September 30, 2021, the Fund totalled $541.5 billion. For more information, please visit www.cppinvestments.com or follow us on LinkedIn, Facebook or Twitter.

Provincial Taxes Per Carton of 200 Cigarettes



Sources: Alberta Treasury Board and Finance and Statista

* Alberta's tax rate reflects the rate increase on March 1, 2024. Other provinces' tax rates known as of February 2, 2024.

* Sales tax amounts are calculated using an April 2023 snapshot of retail prices for a carton of cigarettes in each province.

Electric Vehicle Tax

While the number of electric vehicles (EVs) in Alberta is currently low, EVs are being purchased in ever-increasing numbers. EVs tend to be heavier than similar internal combustion vehicles and cause more wear and tear on provincial roadways while their owners pay no fuel tax. While fuel tax revenue is not dedicated to funding construction and maintenance of provincial roads, there are nevertheless fairness concerns with drivers of other vehicles and longer-term challenges associated with declining fuel tax revenue.

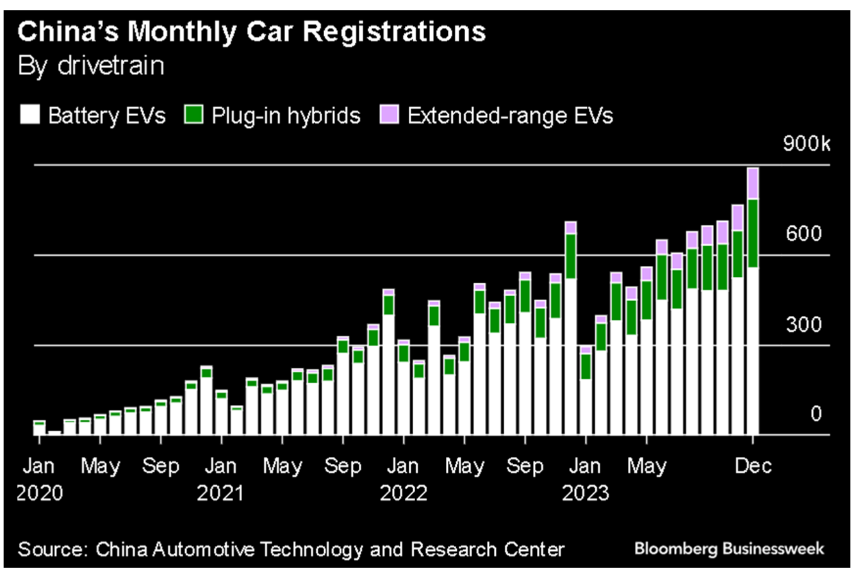
An annual $200 tax will apply to electric vehicles as early as January 2025.

Budget 2024 introduces a new $200 annual tax on EVs, with a targeted effective date of January 1, 2025. The tax will be paid when owners register their vehicles and will be in addition to the existing registration fee. This tax rate is in line with the estimated annual fuel tax paid by the driver of a typical internal combustion vehicle in Alberta. The tax will not apply to hybrid vehicles.

More details regarding the tax will be made available when legislation is introduced in fall 2024. Revenue from the tax is estimated at $1 million in 2024-25 and is expected to grow as EV adoption accelerates, reaching $5 million in 2025-26 and $8 million in 2026-27.

Government will continue to review the sustainability of the fuel tax, including the increasing use of alternative fuels, and consider changes to protect tax revenue.

Chinese Buyers Embracing Plug-In Hybrids Stalls Gains for EVs
2024-02-21 21:00:13.113 GMT
By Bloomberg News
(Bloomberg Businessweek) -- When Sam Zhong was recently hunting for his first car, he test-drove a number of gasoline-powered vehicles and a handful of all-electric models before settling on a Qin Plus plug-in hybrid from BYD Co. At less than 100,000 yuan ($13,900), it fit his budget, and the ability to switch between the battery-powered motor and an old-school internal combustion engine means he can save money on his daily commute and still take long road trips without worrying about recharging.
"I like the strong power of gasoline cars, and this car gives me a great driving experience, even on pure-electric mode," says Zhong, a 29-year-old resident of Guangdong. "I'm very satisfied with the decision."
A growing preference for plug-in hybrids—which solve range anxiety and are more affordable than battery-only cars—has seen the segment become the growth engine for China's market for electrified vehicles, especially after national EV subsidies were phased out at the end of 2022.
Last year sales of plug-in hybrids increased 83%, compared with 21% growth for battery-only EVs. The trend has continued this year: In January, traditionally a slow month for car sales, battery EV deliveries slumped 39% from December, while plug-in hybrid shipments fell just 16%. Overall vehicle sales fell 14%, according to data from the China Passenger Car Association (PCA).



Battery EVs still outsell plug-in hybrids by more than 2 to 1, according to the China Automotive Technology and Research Center. But the fast sales growth for hybrids raises questions about the nation's ultimate goal of transitioning to entirely clean transport.
The growing popularity of plug-in hybrids is also bad news for the likes of Tesla, Xpeng and Nio, which make only fully electric cars. Their customers are mainly concentrated in large,

wealthy metropolises such as Beijing, Shanghai and Shenzhen, where drivers have embraced EVs. Residents of smaller cities and rural areas, where EV makers would like to make inroads, seem to prefer more affordable options and a longer driving range.

BYD sold 3 million vehicles in 2023, with plug-in hybrids accounting for just under half the total. BYD has been developing its plug-in hybrid platform, DM-i, for almost 20 years. The fourth generation of the technology, which launched in 2021, became a smash hit, helping BYD become the bestselling car brand in China last year. It also overtook Tesla Inc. to become the world's largest EV maker in the last quarter. "BYD is the dominant player—it has a weapon that Tesla doesn't have, and that's the plug-in hybrid," says Bill Russo, a former Chrysler executive who's now chief executive officer of Automobility Ltd., a Shanghai-based consultancy.

Japanese automakers are also losing out. Although they pioneered hybrid technology, companies including Toyota Motor Corp. and Nissan Motor Co. haven't focused much on plug-ins. The type of hybrids popular in Japan are powered by an internal combustion engine, plus an electric motor that helps improve fuel efficiency. They can't be recharged from the power grid and don't qualify for local subsidies or tax exemptions in China. Toyota offers more than 20 hybrid models and just two plug-in hybrid cars in China, according to its website.

Another automaker that's benefited by using new technologies to calm customers' range anxiety is Li Auto Inc., whose models are mostly extended-range EVs, battery-powered cars with a gasoline engine that kicks in to recharge the cell when it's out of juice. The Beijing-based manufacturer is expected on Feb. 26 to be the first of the three major Chinese EV upstarts, ahead of Xpeng Inc. and Nio Inc., to post an annual profit for 2023, when sales surged 182% to 376,000 vehicles.

While plug-in hybrids are more environmentally friendly than gasoline cars, their increasing popularity could delay China's planned transition to zero-emission transportation. A plug-in hybrid emits an average of about 4,800 pounds (2,177 kilograms) of carbon dioxide annually, compared with 6,900 pounds for a hybrid and 12,500 pounds for a gasoline car. While battery EVs have zero tailpipe emissions, around 2,700 pounds of carbon dioxide emissions per year may result from their use depending on the source of the electricity that recharges the cars, according to the US Department of Energy.

In guidelines for the EV industry issued in 2021, Beijing envisioned electrified cars—including plug-in hybrids—making up 25% of new vehicle sales by 2025, 90% of which should go to battery EVs. The 25% goal was met in 2022, but battery EVs today account for 66% of electrified vehicle sales, with the rest going to plug-in hybrids, according to the PCA.

Ilaria Mazzocco, a senior fellow at the Center for Strategic and International Studies, says EV adoption is a push-and-pull process among consumers, manufacturers and the government. "I think there's sort of a game where some cities can keep readjusting policies and give priority to battery-electric vehicles over plug-in hybrids," she says. "But as companies provide reliable and affordable options, consumers tend to respond. There is a demand for plug-in hybrids."

Wang Xin, a car dealer in Jiangsu, says he's noticed increased interest in plug-in hybrids. The number of inquiries for plug-in hybrids and EVs are about the same, but the interest in plug-in hybrids is concentrated on some popular models, while people browse a more diverse range of pure-electric vehicles. "When they asked about hybrid cars, they cared most about the price and fuel consumption of individual models, but customers usually started with some generic question of battery-electric cars, such as safety and driving range, when they take the type of cars into consideration," he says.

The popularity of plug-in hybrids isn't a bad thing, because it's a stage on the way to adopting battery EVs, according to Automobility's Russo. "It may not be possible to get all the way to the other side of the river in one step. Plug-in hybrids sit on the EV side of the river. The conventional hybrid sits on the internal combustion engine side," he says. "The plug-in hybrid was designed to give the traditional auto industry, [which] a lot of investments and jobs revolve around, a way to feel their way across the river by stepping on this stone." —With Linda Lew, Jinshan Hong and Chunying Zhang

Read next: Why America's Car Buyers Are Rethinking EVs

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https://www.aceee.org/press-release/2024/02/electric-vehicles-top-2024-greenercars-rankings-prices-drop

Electric Vehicles Top 2024 GreenerCars Rankings as Prices Drop

February 28, 2024

Electric vehicles continue to lead the way in the annual American Council for an Energy-Efficient Economy (ACEEE) GreenerCars ratings of the most environmentally friendly cars. Of the six best-scoring 2024 cars, all are electric, with four fully electric vehicles and two plug-in hybrid electric vehicle (PHEV) models. The Toyota Prius Prime was the top scorer in the 2024 GreenerCars rankings, followed by the Lexus RZ 300e, Mini Cooper SE, Nissan Leaf, Toyota bZ4X, and Toyota RAV4 Prime. Rounding out the top 12 on the Greenest List are three EVs and three gasoline hybrid cars from Hyundai, Toyota, and Kia.

Just over half the cars on the 2024 Greenest List start at under $35,000, including four EVs and three gas hybrids. This comes as average prices across all EVs dropped by 18% in 2023, driven by increased competition from traditional automakers, improvements in inventory and supply chains, and lower costs for lithium-ion batteries. As prices fell, new EV sales last year increased 46%, reaching 1.2 million.

“It’s important for automakers to keep expanding affordable EV options rapidly so that the benefits of EVs are available to drivers across a wider spectrum of incomes as we transition away from cars that burn gasoline. For drivers whose needs are not met by today’s charging infrastructure, many efficient and affordable hybrid options are available,” said Peter Huether, ACEEE’s senior transportation research associate and lead researcher for the GreenerCars rankings.

The Greenest List highlights the 12 highest-scoring models this year, the Greener Choices List includes a variety of high-scoring conventional vehicles, and the Meanest List identifies the 12 worst-performing mass-market models. The average fuel cost of a vehicle on the Greenest List is a fifth of the average fuel cost of a vehicle on the Meanest List, showing that greener options can also be more affordable.

Greenest List

The electric vehicles on the Greenest List had the lowest fueling costs because of their higher efficiency.

Rank	Make & Model	Powertrain	Green Score	MSRP	Estimated Annual Fuel Cost*
1	Toyota Prius Prime SE	PHEV	71	$32,975	$529
2	Lexus RZ 300e	EV	67	$55,150	$651
3	Mini Cooper SE	EV	67	$30,900	$747
4	Nissan Leaf	EV	66	$28,140	$741
5	Toyota bZ4X	EV	66	$43,070	$689
6	Toyota RAV4 Prime	PHEV	64	$43,690	$741
7	Hyundai Elantra Blue	Gas Hybrid	64	$26,250	$864
8	Hyundai Kona Electric	EV	63	$34,050	$695
9	Toyota Camry LE	Gas Hybrid	63	$28,855	$907
10	Kia EV6	EV	63	$43,975	$689
11	Toyota Corolla	Gas Hybrid	62	$23,500	$944
12	Hyundai Ioniq 5	EV	62	$41,650	$737

*ACEEE analysis using EIA data of annual cost—from gasoline, electricity, or a combination—of driving 15,000 miles

To calculate GreenerCars scores, ACEEE evaluates each model year 2024 car on its cost to human health from air pollution associated with vehicle manufacturing and disposal, the production and distribution of fuel or electricity, and vehicle tailpipe emissions. On that basis, ACEEE assigns a Green Score to more than 1,200 model year 2024 cars, including cars fueled solely by gasoline or diesel, gas-fueled hybrids with electric motors, plug-in hybrids powered by both gas and electricity from the grid, and all-electric vehicles.

Greener Choices

The 2024 Greener Choices List includes model year 2024 cars that are available nationwide with among the lowest environmental impacts in each vehicle class but that didn't make the Greenest List. The Greener Choices List does not include EVs (including PHEVs) because some drivers do not have adequate access to EV charging.

Rank	Make & Model	Powertrain	Vehicle Class	Green Score	MSRP	Estimated Annual Fuel Cost*
1	Honda Accord	Gas Hybrid	Large Car	62	$33,990	$982
2	Kia Niro FE	Gas Hybrid	Compact SUV	61	$28,315	$885
3	Mitsubishi Mirage	Gas	Compact Car	59	$17,955	$1,189
4	Lexus ES 300h	Gas Hybrid	Midsize Car	59	$44,590	$1,073
5	Lexus NX 350h	Gas Hybrid	Midsize SUV	57	$43,465	$1,207
6	Ford Maverick	Gas Hybrid	Compact Pickup	55	$24,900	$1,297
7	Toyota Sienna	Gas Hybrid	Minivan	55	$39,080	$1,304
8	Mini Cooper Convertible	Gas	Subcompact Car	54	$35,700	$1,412
9	Toyota Highlander	Gas Hybrid	Large SUV	54	$40,720	$1,348
10	Kia Soul	Gas	Small Wagon	53	$21,565	$1,467
11	BMW Z4 sDrive30i	Gas	Two-Seater	50	$53,600	$1,626
12	Mercedes-Benz GLA250	Gas Hybrid	Large Van	49	$43,000	$1,596
13	Volvo V90CC B6	Gas Hybrid	Midsize Wagon	45	$59,800	$1,843
14	Ford Ranger	Gas	Standard Pickup	43	$32,670	$1,968

*ACEEE analysis using EIA data of the annual cost of driving 15,000 miles

Meanest List

The Meanest List of the worst-performing mass market automobiles consists of primarily large, inefficient gas guzzlers, with seven SUVs, three trucks, one sports car, and one sedan. The Mercedes-Benz G63 SUV was the worst-performing vehicle of the more than 1,200 models assessed by GreenerCars and has an annual fuel cost over $4,000.

The Meanest List includes an EV for the first time. The 9,000-pound electric GMC Hummer ranks #9 on the Meanest List. GM markets the "supertruck" as "extreme" and "loaded with extras." Though EVs have lower emissions than similarly sized gasoline models, the Hummer demonstrates that size and efficiency, not just fuel source, are important factors in a car's environmental impact.

Rank	Make & Model	Powertrain	Green Score	MSRP	Estimated Annual Fuel Cost*
1	Mercedes-Benz AMG G63	Gas	20	$184,000	$4,242
2	Ram 1500 TRX 4x4	Gas	22	$98,335	$3,819
3	Ford F150 Raptor R	Gas	24	$79,975	$3,777
4	Cadillac Escalade V	Gas	26	$152,295	$3,388
5	Dodge Durango SRT	Gas	26	$74,995	$3,332
6	Jeep Wrangler 4dr 4X4	Gas	27	$35,895	$3,260
7	Jeep Grand Wagoneer 4x4	Gas	28	$91,945	$3,058
8	Mercedes-Benz G550	Gas	28	$143,000	$3,186
9	GMC Hummer EV SUV	EV	29	$98,845	$1,746
10	GMC Sierra	Gas	29	$37,700	$3,069
11	Chevrolet Corvette Z06	Gas	30	$114,395	$3,169
12	Mercedes-Benz Maybach S680	Gas	30	$234,300	$3,031

*ACEEE analysis using EIA data of the annual cost of driving 15,000 miles

Green Scores for model year 2024 vehicles are available on ACEEE's GreenerCars interactive database, along with each configuration's fuel economy, health-related pollution impacts, and greenhouse gas emissions. GreenerCars also details the scoring methodology and provides a database of every vehicle scored since model year 2000. GreenerCars' Market Trends analysis outlines the state of the auto market in 2023.

MYEAR	Class	Make	Model	EDX	Green Score	Engine Specification	Drive	EmisCert	Emission Classification	City*	Hiwy*	Rank	FuelType	Transmission	Weight
2024	Midsize Cars	TOYOTA	PRIUS PRIME SE	0.57	71	Electric (Li-Ion) / 2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	4.26 / 55	3.43 / 52	Superior	Electricity	Automatic	3500
2024	Midsize Cars	TOYOTA	PRIUS PRIME	0.63	68	Electric (Li-Ion) / 2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	3.80 / 50	3.11 / 47	Superior	Electricity	Automatic	4000
2024	Compact SUVs	LEXUS	RZ 300e (18inch Wheels)	0.65	67	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	4.11	3.36	Superior	Electricity	Automatic	4500
2024	Subcompact Cars	Mini	COOPER SE HARDTOP 2 DOOR	0.65	67	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.52	2.98	Superior	Electricity	Automatic	3500
2024	Compact SUVs	LEXUS	RZ 300e (20inch Wheels)	0.68	66	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.46	2.88	Superior	Electricity	Automatic	4500
2024	Midsize Cars	NISSAN	LEAF	0.67	66	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.65	2.93	Superior	Electricity	Automatic	4000
2024	Midsize SUVs	Subaru	SOLTERRA AWD	0.68	66	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.54	2.92	Superior	Electricity	Automatic	4500
2024	Midsize SUVs	Subaru	SOLTERRA LIMITED/TOURING AWD	0.69	66	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.39	2.83	Superior	Electricity	Automatic	4500
2024	Compact SUVs	TOYOTA	bZ4X	0.67	66	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.88	3.19	Superior	Electricity	Automatic	4500
2024	Midsize SUVs	TOYOTA	bZ4X AWD	0.68	66	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.54	2.92	Superior	Electricity	Automatic	4500
2024	Compact SUVs	TOYOTA	bZ4X LIMITED	0.69	66	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.59	3.03	Superior	Electricity	Automatic	4500
2024	Midsize SUVs	TOYOTA	bZ4X LIMITED AWD	0.68	66	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.47	2.87	Superior	Electricity	Automatic	4500
2024	Midsize Cars	TOYOTA	PRIUS	0.69	65	2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	58	58	Superior	Regular Gasoline	Automatic	3500
2024	Midsize Cars	Hyundai	Elantra Hybrid Blue	0.74	64	1.6L 4, auto	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	51	58	Superior	Regular Gasoline	Automatic	3500
2024	Midsize SUVs	LEXUS	RZ 450e AWD (18inch Wheels)	0.72	64	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.47	2.94	Superior	Electricity	Automatic	5000
2024	Midsize Cars	TOYOTA	PRIUS AWD	0.72	64	2.0L 4, auto CVT 4wd	Part-Time 4WD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	55	55	Superior	Regular Gasoline	Automatic	3500
2024	Midsize Cars	TOYOTA	PRIUS XLE/LTD	0.74	64	2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	54	53	Superior	Regular Gasoline	Automatic	3500
2024	Midsize SUVs	TOYOTA	RAV4 PRIME AWD	0.72	64	Electric (Li-Ion) / 2.5L 4, auto CVT Awd	AWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	3.09 / 40	2.48 / 37	Superior	Electricity	Automatic	4500
2024	Compact SUVs	Hyundai	Kona Electric Long Range	0.76	63	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.82	3.06	Above Average	Electricity	Automatic	4000
2024	Compact SUVs	Hyundai	Kona Electric Standard Range	0.75	63	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.9	3.12	Above Average	Electricity	Automatic	4000

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* City and highway efficiency ratings expressed in miles per gallon (MPG) for gasoline and diesel-powered drive and miles per kilowatt-hour for electric-powered drive. Both values are expressed for plug-in hybrid vehicles.

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MYEAR	Class	Make	Model	EDX	Green Score	Engine Specification	Drive	EmisCert	Emission Classification	City*	Hiwy*	Rank	FuelType	Transmission	Weight
2024	Compact SUVs	KIA	EV6 Standard Range RWD	0.77	63	Electric (Li-Ion)	RWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	4.1	3.02	Above Average	Electricity	Automatic	4000
2024	Midsize SUVs	LEXUS	RZ 450e AWD (20inch Wheels)	0.75	63	Electric (Li-Ion)	AWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.09	2.6	Superior	Electricity	Automatic	5000
2024	Midsize Cars	TOYOTA	CAMRY HYBRID LE	0.75	63	2.5L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	51	53	Above Average	Regular Gasoline	Automatic	3500
2024	Midsize Cars	TOYOTA	PRIUS AWD XLE/LTD	0.76	63	2.0L 4, auto CVT 4wd	Part-Time 4WD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	51	51	Above Average	Regular Gasoline	Automatic	3500
2024	Large Cars	Honda	ACCORD	0.79	62	2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	51	46	Superior	Regular Gasoline	Automatic	3500
2024	Midsize Cars	Hyundai	Elantra Hybrid	0.77	62	1.6L 4, auto	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	49	52	Above Average	Regular Gasoline	Automatic	3500
2024	Compact SUVs	Hyundai	Ioniq 5 Standard range RWD	0.78	62	Electric (Li-Ion)	RWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.82	2.83	Above Average	Electricity	Automatic	4000
2024	Midsize Cars	Hyundai	Ioniq 6 Standard Range RWD	0.79	62	Electric (Li-Ion)	RWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	4.6	3.66	Above Average	Electricity	Automatic	4000
2024	Midsize SUVs	LEXUS	NX 450h+ AWD	0.78	62	Electric (Li-Ion) / 2.5L 4, auto CVT Awd	AWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	2.76 / 38	2.23 / 33	Superior	Electricity	Automatic	4500
2024	Midsize Cars	NISSAN	LEAF SV	0.77	62	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.59	2.91	Above Average	Electricity	Automatic	4000
2024	Compact Cars	TOYOTA	COROLLA HYBRID	0.77	62	1.8L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	54	47	Superior	Regular Gasoline	Automatic	3500
2024	Compact Cars	TOYOTA	COROLLA HYBRID AWD	0.79	62	1.8L 4, auto CVT Awd	AWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	52	45	Superior	Regular Gasoline	Automatic	3500
2024	Compact SUVs	KIA	Niro FE	0.81	61	1.6L 4, auto	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	53	54	Above Average	Regular Gasoline	Automatic	3500
2024	Midsize SUVs	KIA	Sportage Plug-in Hybrid	0.83	61	Electric (Li-Ion) / 1.6L 4, auto Awd	AWD	Tier 3 Bin 30 / LEV-III SULEV30	Phase III Low Emission Vehicles (LEV III)	2.63 / 36	2.34 / 35	Superior	Electricity	Automatic	4500
2024	Compact Cars	TOYOTA	COROLLA HYBRID	0.8	61	1.8L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	50	45	Superior	Regular Gasoline	Automatic	3500
2024	Midsize Cars	Honda	ACCORD SPORT/TOURING	0.84	60	2.0L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	48	42	Above Average	Regular Gasoline	Automatic	3500
2024	Large Cars	Hyundai	Sonata Hybrid	0.83	60	2.0L 4, auto	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	44	51	Superior	Regular Gasoline	Automatic	4000
2024	Midsize SUVs	Hyundai	Tucson Plug-in Hybrid	0.84	60	Electric (Li-Ion) / 1.6L 4, auto Awd	AWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	2.59 / 35	2.19 / 35	Superior	Electricity	Automatic	4500
2024	Compact SUVs	KIA	Niro Electric	0.83	60	Electric (Li-Ion)	FWD	Tier 3 Bin 0 / ZEV	PZEV and ZEV	3.8	3.04	Above Average	Electricity	Automatic	4000
2024	Midsize Cars	TOYOTA	CAMRY HYBRID SE/XLE/XSE	0.84	60	2.5L 4, auto CVT	FWD	LEV-III SULEV30 / Tier 3 Bin 30	Tier 3	44	49	Above Average	Regular Gasoline	Automatic	4000

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* City and highway efficiency ratings expressed in miles per gallon (MPG) for gasoline and diesel-powered drive and miles per kilowatt-hour for electric-powered drive. Both values are expressed for plug-in hybrid vehicles.

Bloomberg

Apple Cancels Work on Electric Car, Ending Decadelong Effort

Story by Mark Gurman • 40m

(Bloomberg) -- Apple Inc. is canceling a decadelong effort to build an electric car, according to people with knowledge of the matter, abandoning one of the most ambitious projects in the history of the company.

Apple made the disclosure internally Tuesday, surprising the nearly 2,000 employees working on the project, said the people, who asked not to be identified because the announcement wasn't public. The decision was shared by Chief Operating Officer Jeff Williams and Kevin Lynch, a vice president in charge of the effort, according to the people.

The two executives told staffers that the project will begin winding down and that many employees on the car team — known as the Special Projects Group, or SPG — will be shifted to the artificial intelligence division under executive John Giannandrea. Those employees will focus on generative AI projects, an increasingly key priority for the company.

The Apple car team also has several hundred hardware engineers and vehicle designers. It's possible they will be able to apply for jobs on other Apple teams. There will be layoffs, but it's unclear how many.

Apple, based in Cupertino, California, declined to comment.

The move came as a relief to investors, who sent Apple shares climbing Tuesday after an earlier decline. The stock was up about 1% to $182.52 at 3:52 p.m. in New York after Bloomberg reported the news.

Elon Musk, head of Tesla Inc., also celebrated the move. He sent a post on X with a saluting emoji and a cigarette.

The decision to ultimately wind down the project is a bombshell for the company, ending a multibillion-dollar effort called Project Titan that would have vaulted Apple into a whole new industry. The tech giant started working on a car around 2014, setting its sights on a fully autonomous electric vehicle with a limousine-like interior and voice-guided navigation.

But the project struggled nearly from the start, with Apple changing the team's leadership and strategy several times. Lynch and Williams took charge of the undertaking a few years ago — following the departure of Doug Field, now a senior executive at Ford Motor Co.

Apple also was facing a cooling market for EVs. Sales growth lost steam in recent months after high prices and a lack of charging infrastructure discouraged mainstream buyers from shifting to all-electric vehicles. General Motors Co. and Ford are pivoting to producing more hybrid vehicles after confronting lackluster EV demand and manufacturing bottlenecks, and automakers across the industry are slashing battery-electric car prices, production targets and profit forecasts.

Even Tesla, the pioneer of the EV revolution in the US, has warned its rate of expansion will be "notably lower" this year. Domestic EV sales growth will decelerate to 11% this year from an estimated 47% growth rate in 2023, according to a forecast by UBS AG.

Apple's most senior executives finalized the decision in recent weeks, according to the people. It comes just a month after Bloomberg News reported that the project reached a make-or-break point. The most recent approach discussed internally was delaying a car release until 2028 and reducing self-driving specifications from Level 4 to Level 2+ technology.

Under the new arrangement, Lynch will report to Giannandrea. He previously reported to Williams, who also has overseen software engineering for the Apple Watch.

Apple once envisioned creating a car without a steering wheel and pedals, but it scrapped that notion earlier. The company also spent time working on a remote command center that could take over for a driver.

Most recently, Apple had imagined the car being priced at around $100,000. But executives were concerned about the vehicle being able to provide the profit margins that Apple typically enjoys on its products. The company's board was also concerned about continuing to spend hundreds of millions of dollars a year on a project that may never see the light of day.

Apple continues to invest heavily in other areas. The company spent $113 billion on total research and development over the past five years, with an average annual growth rate of about 16%. The company also recently launched the Vision Pro headset — its first new product category in almost a decade — and has built up that business.

The company has scrapped projects before, including a plan to make a TV set that was abandoned around 2015. But few endeavors have lasted this long, involved so many employees or wracked up billions of dollars in expenses.

So far, Apple's biggest push into the auto industry was its CarPlay software, which lets drivers access iPhone features like maps and Siri. It's being redesigned to integrate more deeply with vehicle controls and entertainment systems. By not competing with automakers, Apple could give a boost to that software, helping spread it to more models.

https://edmontonjournal.com/opinion/columnists/keith-gerein-edmonton-82-million-electric-bus-failure

1. **Opinion** **Columnists**

Keith Gerein: Edmonton faces questions of calculated risk following $82-million electric bus failure

"None of the buses have ever achieved 328 km on a single charge," the proof of claim says. "On average, the bus range has been approximately 165 km in the winter and, at best, 250 km in warmer weather"

Author of the article: **Keith Gerein**

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The first electric test bus is seen at the Centennial Transit Garage in Edmonton on Sept. 19, 2019. PHOTO BY IAN KUCERAK /Postmedia

I have long been fascinated by a tension in political decision-making between risk and responsibility.

Governments assume the former every time they try to be a trailblazer in adopting some new innovation or technology. If they bet right, getting in on the ground floor can have big political and financial upside.

But governments who steward taxpayer dollars are generally risk averse because the consequences of betting wrong seem much more extreme. Losing public money on a speculative venture creates an easy target for opposition politicians, advocacy groups and columnists like myself, among others, who gleefully join in a chorus of "I told you so."

Previous city councils of the 2016-2018 era found themselves immersed in this very conundrum when deciding whether to buy a bunch of battery electric buses for Edmonton Transit.

Their decision to ultimately take the leap is now creating headaches for the council of 2024 due to the widespread issues among those 60 buses, the bankruptcy of their U.S. manufacturer and a lot of doubt about the technology itself.

In fact, in a new "proof of claim" submitted as part of the U.S. bankruptcy process, the city seeks to recover a little over $82 million in damages from Proterra Inc., stemming from the failure of the buses to meet expected kilometre ranges and various hardware and body problems.

Specifically, the city claims the buses have fallen well short of Proterra's performance guarantees for Edmonton's climate that specified an operating range of 328 km at the beginning of battery life and 268 km in extreme cold.

“None of the buses have ever achieved 328 km on a single charge,” the proof of claim says. “On average, the bus range has been approximately 165 km in the winter and, at best, 250 km in warmer weather.”

Proterra was starting to supply battery blankets to each bus as an interim measure to improve the range, the claim says, but then adds that the city has only received a portion of these. It’s also unclear if the blankets actually help.

Beyond the batteries, the city claims the buses — despite being delivered between 2019 and 2021 — have experienced a number of other problems, including gearbox and steering box failures, issues with stanchions and bell pulls, and cracks in the composite body structure.

“As a result of the hardware issues, more than half of the buses are regularly out of service. At most, the city has 28 of the 60 buses on the road at any given time,” the proof of claim says.


Mayor Don Iveson wears a mask during an announcement at the launch of the city’s first battery electric buses on July 23, 2020, at the Kathleen Andrews Transit Garage. PHOTO BY GREG SOUTHAM /Postmedia

Proterra’s transit division was sold last month through the bankruptcy to Phoenix Motor Inc. The city says its bus contract was initially supposed to be transferred to the new company, but it was removed from Phoenix’s list one day before the sale hearing.

That kept the contract with Proterra, but what remains of that company has since had a bankruptcy motion approved to reject many of its agreements, including the one with Edmonton.

As such, the city says it can no longer rely on warranty obligations, including a promise to replace the battery packs at the beginning of the seventh year.

We’ll see what happens with the city’s claim. But as an unsecured creditor, Edmonton is one of the last to feed at the carcass, so there is a good chance the city won’t get much of its investment back.

“Officially, (we’re) very disappointed, frustrated, at times angry about where we are at,” Carrie Hotton-MacDonald, branch manager of Edmonton Transit, told me in a recent interview. “This is not just affecting Edmonton. It’s really shaken up all of us (in the transit sector) because none of us saw this coming. We were all blindsided.”

(Proterra had contracts in many U.S. markets and a handful in Canada, including in Toronto, British Columbia and Banff/Canmore).

Hotton-MacDonald said Edmonton Transit is trying to keep as many of the electrics on the road as possible as part of its 1,000-vehicle fleet. But due to their limited capacity, it has created headaches with the jigsaw puzzle of routes and service times, and forced the city to keep older diesel buses around as backups, she said.

“This is what we wished to avoid. A bus should be a bus. …They promised these kilometres and they have not delivered on those kilometres. We don’t want to manage fleets within fleets.”

As for the long-term prognosis for the electrics, she said the city is looking at various options pending the bankruptcy claim. Whether that means the buses can be kept operational for awhile, retrofitted with improvements, sold, cannibalized for parts or sent to the scrap yard, it’s unclear at this point.

That’s the lousy situation as it stands. But to get back to the issue I started with, there is a fascinating question to consider — while the decision to buy the buses looks bad through the cruel lens of hindsight, were those past councils wrong to take a risk at the time?

Back then, as now, council members and city administrators were feeling increasing urgency to take action on climate change. Edmonton’s declaration of a climate emergency and specific emission reduction targets didn’t come until later but, even before those moves, the city knew that transitioning its fleet away from fossil fuels would have to be a big part of the effort.

Battery-electrics were seen as the best emerging technology, and the city did test a couple of models in 2015-16. While the review of that testing raised some red flags, introducing e-buses to Edmonton’s fleet was still considered viable — in part based on enthusiastic beliefs about how quickly the technology was improving.

Here is where things sort of went sideways.

Of particular note, Proterra was not one of the companies whose buses were tested in 2015-16. Despite that, and despite the fact they were one of the newest players in the market, they won the city’s competitive bid process overseen by a fairness monitor.

Apparently, Proterra did then send the city a couple of its buses for testing, but it seems that testing was not done in the teeth of winter and the city had already committed to buy at that point anyway.

That’s not to say the city wouldn’t have run into problems with a different e-bus supplier. Nonetheless, a careful review of the past decision-making seems in order, in part because the city can’t entirely shy away from future risk in this area.

On that front, with concern mounting that battery-electrics may not yet be conducive to the Canadian climate, there has been increasing interest in hydrogen buses. Edmonton and Strathcona County are currently testing a couple of those and, while the early returns are apparently encouraging, Hotton-MacDonald is insisting on more winter performance data and wants to see how the manufacturing industry develops.

(H-buses are at least double the cost of conventional diesel buses right now, but the province may be more willing to contribute to such models over electrics.)

Climate change is still a thing that has to be mitigated. The city still needs to transition its fleet to meet its emission goals. Calculated risk is therefore unavoidable, but the pressure now is to make sure those calculations are as thorough as possible to minimize the liability to taxpayers.

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https://fortune.com/2024/02/27/exxon-ceo-darren-woods-interview-pay-the-price-for-net-zero/

Exxon Mobil CEO on the 'dirty secret' of Net Zero: 'People who are generating the emissions need to be aware … and pay the price'

BY **JANE THIER**

February 27, 2024 at 1:17 PM MST

"The dirty secret nobody talks about is how much all this is going to cost and who's willing to pay for it," Exxon Mobil CEO Darren Woods said.

ANDREW CABALLERO-REYNOLDS—AFP/GETTY IMAGES

As it stands, we're not on the path to net-zero emissions by 2050, Exxon Mobil CEO Darren Woods said. And maybe that's not Big Oil's fault.

"The dirty secret nobody talks about is how much all this is going to cost and who's willing to pay for it," Woods, who replaced Rex Tillerson at the helm of Exxon Mobil in January 2017, said. "If you look at the policies [governments] are putting out, the cost is very implicit. It's not an explicit cost."

Most objective analyses would suggest that "we've waited too long to open the aperture on the solution sets in terms of what we need, as a society, to start reducing emissions," Woods told *Fortune* CEO Alan Murray and editor-at-large Michal Lev-Ram on a recent episode of the *Leadership Next* podcast. Plus: "We're not investing nearly enough in the technology."

Exxon Mobil is No. 3 on the Fortune 500 and the largest gas and oil corporation in the U.S., having posted a $36 billion profit in 2023. The firm has "tabled proposals" with governments worldwide, Woods said, "to get out there and start down this path using existing technology." But it's been hamstrung by a need for cost transparency—and the fact that everyday people are responsible for generating the emissions too.

"People who are generating the emissions need to be aware of [it] and pay the price," Woods said. "That's ultimately how you solve the problem."

The cost of climate activism could be on consumers' shoulders

Woods, though the head of a fossil fuel giant, has some ground to stand on; he was the first oil and gas CEO to appear at a UN climate summit when he attended COP28 late last year, advocating for reducing emissions and investing in clean energy. In 2022, Exxon Mobil invested $17 billion in its lower-emission initiatives. It has long maintained that greenhouse gas emissions, not fossil fuels, are behind climate change—claims over which it is now being sued.

The main issue, in any case, is that fixing the problem is currently too expensive, Woods told Murray and Lev-Ram. "People can't afford it, and governments around the world rightly know that their constituents will have real concerns," he went on. "So we've got to find a way to get the cost down to grow the utility of the solution, and make it more available and more affordable so that you can begin the [clean energy] transition."

Society is not currently on that path to 2050, in Woods' view. "The policies that are being put in place aren't aggressive enough, and don't incentivize the right kind of actions to be successful."

To have any chance of achieving carbon neutrality within the next 25 years, civilians must "be willing to pay for carbon reduction, because today we have opportunities to make fuels with lower carbon, but people aren't willing to spend the money to do that," he said. Businesses aren't keen on shelling out, either. "We could, today, make sustainable aviation fuel for the airline business, but the airline companies can't afford to pay."

The onus is both political and the personal

The challenge, in Woods' mind, is reframing the cost as necessary on both a corporate and personal level, rather than a nice-to-have. It's anyone's guess how long that would take. "I can't predict if we'll be successful in that space or not." A popular suggestion for passing the cost off to consumers is carbon taxes or a built-in charge on purchased goods, though many experts nonetheless encourage the most offending firms to shoulder the cost burden, not individuals.

It's larger society, in Woods' mind, that has fallen short of its own expectations. "Frankly, society, and the activist—the dominant voice in this discussion—has tried to exclude the industry that has the most capacity and the highest potential for helping with some of the technologies," he said. "How quickly will innovation come? How quickly can we scale [it]? How low can we get the cost? I, frankly, can't answer that."

Much work is left to be done—obviously. Woods points to one particular example: direct air capture, an advancement in which Exxon Mobil has invested heavily. "We just built a pilot plant prototype that we're working on to try and cut the cost in half—which by the way, will still be too expensive," he said. "But we want to get down on that curve. And there are a lot of companies out there trying to advance the technology in this space. How quickly will they succeed? I don't know the answer to that."

Murray pointed out the subsidies Exxon Mobil has received through the 2022 Inflation Reduction Act that are geared at encouraging low-carbon energy solutions. But Woods said that too is a Band-Aid solution. "The way that the government is incentivized and trying to catalyze investments in this space is through subsidies," he said. "Driving significant investments at a scale that even gets close to moving the needle is going to cost a lot of money."

The U.S. government is trying to "get things moving" through those subsidies, he added. "But I would tell you building a business on government subsidy is not a long-term sustainable strategy—we don't support that." Exxon Mobil has committed to using its IRA subsidies to advance its low-carbon energy solutions, "but at the same time, we're advocating to move to market forces, either through regulation and prices on carbon."

The challenge with all those solutions, he said, "is the cost ultimately, explicitly bears itself in the price of products out there." And nobody wants to pay up.

Weekly commentary

BlackRock

February 20, 2024

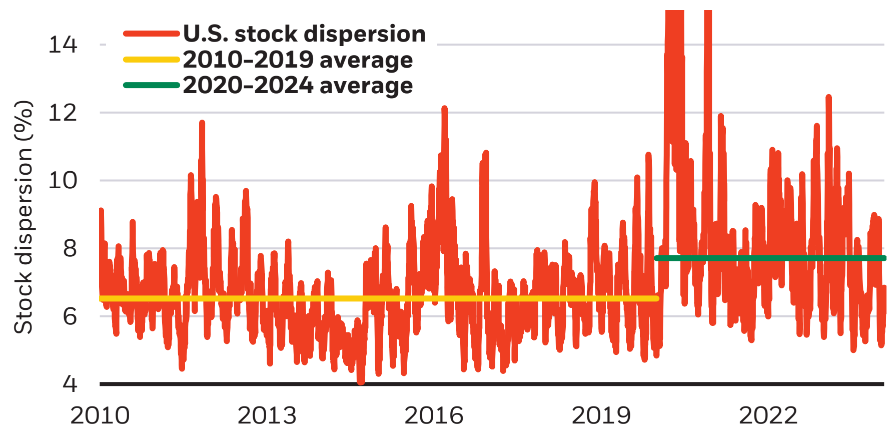
Strategic reasons to get active

- We think market optimism can persist for now but stay nimble. We get more active in our long-term portfolios given a greater dispersion of returns.
- U.S. stocks steadied after a brief dip on stronger-than-expected inflation data last week. We think that shows one data release won't spoil upbeat risk appetite.
- Global manufacturing and services activity is in focus this week. The data may offer an early gauge of Q1 GDP growth as central banks hold policy rates steady.

U.S. stocks recovered after a hit from strong inflation data last week, highlighting one data point won't disrupt buoyant risk appetite. We're tactically overweight U.S. stocks as we think market optimism can persist for now. Yet we are strategically active – or ready to pivot our views as we expect resurgent inflation coming into view to spoil sentiment. In the long term, we see a greater role for active strategies that can produce above-benchmark returns due to richer asset valuations broadly.

Uncertainty spurs dispersion

Dispersion of S&P 500 performance, 2010-2024



Past performance is not a reliable indicator of current or future results, and index returns do not account for fees. It is not possible to invest directly in an index. Source: BlackRock Investment Institute, with data from LSEG Datastream, February 2024. Notes: The chart shows the dispersion in S&P 500 monthly stock returns on a daily basis and the median level of dispersion from July 2010 after the global financial crisis through 2019, and from 2020 through Jan. 31, 2024.

We believe there is less consensus and more uncertainty about key macro variables, like inflation, than in the past. Elevated uncertainty is reflected in the heightened dispersion of returns in the new regime, we find. Monthly returns of individual S&P 500 stocks (orange line in the chart) have deviated more from their average since 2020 (green line) than in the prior decade (yellow line). We opted to be selective in U.S. stocks as a result last year, leaning into the artificial intelligence (AI) theme and away from the broad market. Last month, we turned overall overweight U.S. stocks on a six- to 12-month tactical horizon, while still preferring tech. That's because we think positive market sentiment can persist and broaden out for now as the Federal Reserve readies to cut interest rates and inflation falls nears its 2% target this year.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Yet we are nimble in reassessing our views given our expectation inflation will resurge in 2025. We think mega forces – big structural shifts like geopolitical fragmentation, demographic divergence and the low-carbon transition – are set to make inflation more volatile and settle higher than before the pandemic. On a strategic horizon of five years and more, our stance on developed market (DM) stocks is less positive than our tactical view and we stay neutral. Persistent inflation means real returns, or those exceeding inflation, will be lower over a strategic horizon. Long-term valuations for some asset classes look too high when baking in this outlook and our expectation for interest rates to settle higher than before the pandemic.

That return outlook means that the traditional portfolio approach of static asset allocations won't work as well as in recent decades, in our view. We stay dynamic in our strategic views as one part of the solution. We trim our overweight to inflation-linked DM bonds as real yields have slid. We up investment grade credit to neutral on a preference for Europe, where credit risk seems better rewarded. In addition to being more dynamic, we think active strategies will play a greater role in strategic portfolios. Our work finds that the difference in our estimate of active returns between the top and bottom 25% of managers is near its widest since 2011. Skill and acting more frequently on good insights can be better rewarded now, in our view.

Top managers may have more potential for active returns in private markets. Dispersion across them has risen in the new regime and tops public markets, based on the limited data available from NCREIF. We prefer income private markets over growth as a shifting U.S. corporate funding landscape likely boosts demand for private credit – part of the future of finance mega force. We see infrastructure equity as a bright spot within growth private markets as it cuts across all mega forces. Private markets are complex, with high risk and volatility, and aren't suitable for all investors.

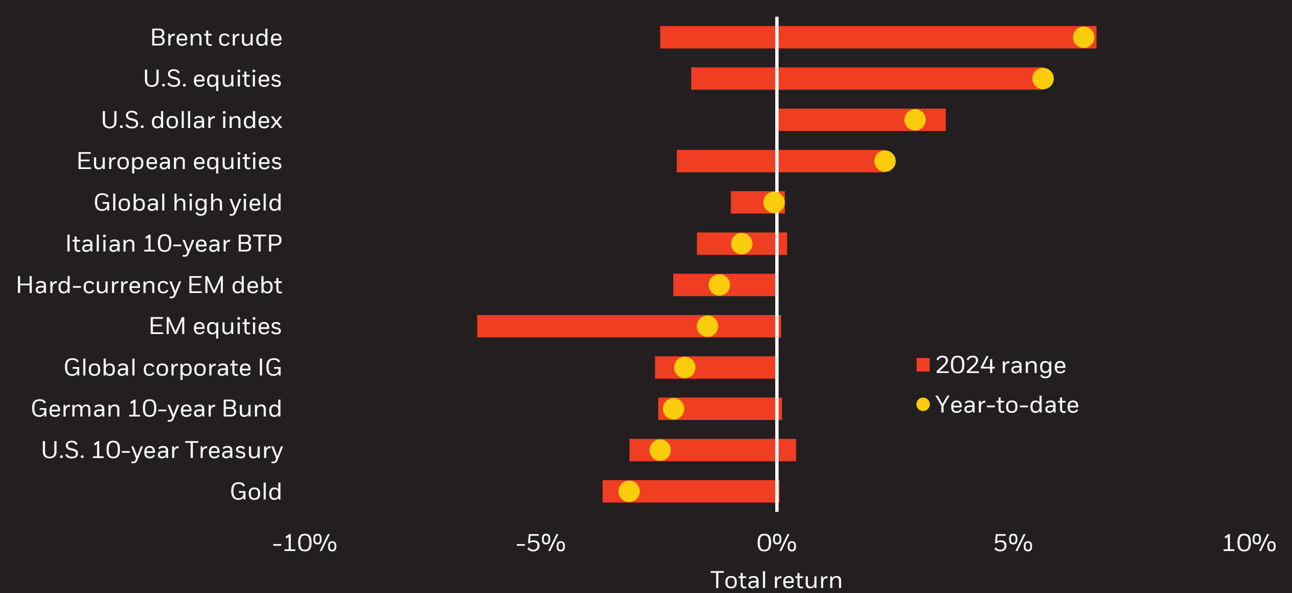
Bottom line: We're being strategically active in our portfolios. We're overweight U.S. stocks tactically as we think positive risk appetite can persist for now, yet we stay nimble. We take a more active approach in the long run as structural shifts play out. Professional investors can visit our Capital market assumptions website for more details on our strategic return expectations.

Market backdrop

U.S. stocks steadied last week, recovering from a brief dip after U.S. CPI inflation data for January was stronger than expected. U.S. 10-year Treasury yields jumped as markets priced out Fed rate cuts – bringing markets closer to our expectations for rate cuts. We think the quick recovery in stocks highlights that one data release is not enough to spoil positive market sentiment for now. The Fed starting to cut rates and inflation nearing 2% should support stocks in the near term, but we stay nimble.

Assets in review

Selected asset performance, year-to-date return and range



Past performance is not a reliable indicator of current or future results. Indexes are unmanaged and do not account for fees. It is not possible to invest directly in an index.

Sources: BlackRock Investment Institute, with data from LSEG Datastream as of Feb. 15, 2024. Notes: The two ends of the bars show the lowest and highest returns at any point year to date, and the dots represent current year-to-date returns. Emerging market (EM), high yield and global corporate investment grade (IG) returns are denominated in U.S. dollars, and the rest in local currencies. Indexes or prices used are: spot Brent crude, ICE U.S. Dollar Index (DXY), spot gold, MSCI Emerging Markets Index, MSCI Europe Index, LSEG Datastream 10-year benchmark government bond index (U.S., Germany and Italy), Bank of America Merrill Lynch Global High Yield Index, J.P. Morgan EMBI Index, Bank of America Merrill Lynch Global Broad Corporate Index and MSCI USA Index.

Week ahead

Feb. 21	Euro area consumer confidence survey; Japan trade data	**Feb. 23**	Germany Ifo Business Climate Index
Feb. 22	Global flash PMIs		

Global manufacturing and services activity is in focus this week, with global PMIs due for release, including for the U.S. and Europe. We look to the data as an early indication of Q1 GDP growth. We see interest rates in most developed markets remaining higher for longer than before the pandemic due to persistent inflationary pressures in the long term.

Big calls

Our highest conviction views on tactical (6-12 month) and strategic (long-term) horizons, February 2024

Tactical	Reasons
U.S. equities	• Our macro view has us neutral at the benchmark level. But the AI theme and its potential to generate alpha – or above-benchmark returns – push us to be overweight overall.
Income in fixed income	• The income cushion bonds provide has increased across the board in a higher rate environment. We like short-term bonds and are now neutral long-term U.S. Treasuries as we see two-way risks ahead.
Geographic granularity	• We favor getting granular by geography and like Japan equities in DM. Within EM, we like India and Mexico as beneficiaries of mega forces even as relative valuations appear rich.
Strategic	**Reasons**
Private credit	• We think private credit is going to earn lending share as banks retreat – and at attractive returns relative to credit risk.
Inflation-linked bonds	• We see inflation staying closer to 3% in the new regime on a strategic horizon.
Short- and medium-term bonds	• We overall prefer short-term bonds over long term. That's due to more uncertain and volatile inflation, heightened bond market volatility and weaker investor demand.

Note: Views are from a U.S. dollar perspective, February 2024. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding any particular funds, strategy or security.

Tracking five mega forces

Mega forces are big, structural changes that affect investing now – and far in the future. As key drivers of the new regime of greater macroeconomic and market volatility, they change the long-term growth and inflation outlook and are poised to create big shifts in profitability across economies and sectors. This creates major opportunities – and risks – for investors. See our web hub for our research and related content on each mega force.

1. **Demographic divergence:** The world is split between aging advanced economies and younger emerging markets – with different implications.
2. **Digital disruption and artificial intelligence (AI):** Technologies that are transforming how we live and work.
3. **Geopolitical fragmentation and economic competition:** Globalization is being rewired as the world splits into competing blocs.
4. **Future of finance:** A fast-evolving financial architecture is changing how households and companies use cash, borrow, transact and seek returns.
5. **Transition to a low-carbon economy:** The transition is set to spur a massive capital reallocation as energy systems are rewired.

Granular views

Six- to 12-month tactical views on selected assets vs. broad global asset classes by level of conviction, February 2024

Our approach is to first determine asset allocations based on our macro outlook – and what's in the price. **The table below reflects this and, importantly, leaves aside the opportunity for alpha, or the potential to generate above-benchmark returns.** The new regime is not conducive to static exposures to broad asset classes, in our view, but is creating more space for alpha**.**

Underweight | Neutral | Overweight | ● Previous view

	Asset		View	Commentary
Equities	**Developed markets**			
	United States	Benchmark	Neutral	We are neutral in our largest portfolio allocation. Falling inflation and coming Fed rate cuts can underpin the rally's momentum. We are ready to pivot once the market narrative shifts.
		Overall	+1	We are overweight overall when incorporating our U.S.-centric positive view on artificial intelligence (AI). We think AI beneficiaries can still gain while earnings growth looks robust.
	Europe		-1	We are underweight. The ECB is holding policy tight in a slowdown. Valuations are attractive, but we don't see a catalyst for improving sentiment.
	UK		Neutral	We are neutral. We find attractive valuations better reflect the weak growth outlook and the Bank of England's sharp rate hikes to fight sticky inflation.
	Japan		+1	We are overweight. We see stronger growth helping earnings top expectations. Stock buybacks and other shareholder-friendly actions are positives. Policy tightening is a near-term risk.
	Emerging markets		Neutral	We are neutral. We see growth on a weaker trajectory and see only limited policy stimulus from China. We prefer EM debt over equity.
	China		Neutral	We are neutral. Modest policy stimulus may help stabilize activity, and valuations have come down. Structural challenges such as an aging population and geopolitical risks persist.
Fixed Income	Short U.S. Treasuries		+1	We are overweight. We prefer short-term government bonds for income as interest rates stay higher for longer
	Long U.S. Treasuries		Neutral	We are neutral. The yield surge driven by expected policy rates has likely peaked. We now see about equal odds that long-term yields swing in either direction.
	U.S. inflation-linked bonds		Neutral	We are neutral. We see higher medium-term inflation, but cooling inflation and growth may matter more near term.
	Euro area inflation-linked bonds		-1	We are underweight. We prefer the U.S. over the euro area. We see markets overestimating how persistent inflation in the euro area will be relative to the U.S.
	Euro area govt bonds		Neutral	We are neutral. Market pricing reflects policy rates in line with our expectations and 10-year yields are off their highs. Widening peripheral bond spreads remain a risk.
	UK gilts		Neutral	We are neutral. Gilt yields have compressed relative to U.S. Treasuries. Markets are pricing in Bank of England policy rates closer to our expectations.
	Japanese govt bonds		-1	We are underweight. We see upside risks to yields from the Bank of Japan winding down its ultra-loose policy.
	China govt bonds		Neutral	We are neutral. Bonds are supported by looser policy. Yet we find yields more attractive in short-term DM paper.
	Global IG credit		-1	We are underweight. Tight spreads don't compensate for the expected hit to corporate balance sheets from rate hikes, in our view. We prefer Europe over the U.S.
	U.S. agency MBS		Neutral	We are neutral. We see agency MBS as a high-quality exposure in a diversified bond allocation and prefer it to IG.
	Global high yield		Neutral	We are neutral. Spreads are tight, but we like its high total yield and potential near-term rallies. We prefer Europe.
	Asia credit		Neutral	We are neutral. We don't find valuations compelling enough to turn more positive.
	Emerging hard currency		+1	We are overweight. We prefer EM hard currency debt due to its relative value and quality. It is also cushioned from weakening local currencies as EM central banks cut policy rates.
	Emerging local currency		Neutral	We are neutral. Yields have fallen closer to U.S. Treasury yields. Central bank rate cuts could hurt EM currencies, dragging on potential returns.

Past performance is not a reliable indicator of current or future results. It is not possible to invest directly in an index. Note: Views are from a U.S. dollar perspective. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast or guarantee of future results. This information should not be relied upon as investment advice regarding any particular fund, strategy or security.

IFIC Monthly Investment Fund Statistics – January 2024
Mutual fund and exchange-traded fund (ETF) assets and sales

February 26, 2024 (Toronto) – The Investment Funds Institute of Canada (IFIC) today announced investment fund net sales and net assets for January 2024.

Mutual fund assets totalled $1.955 trillion at the end of January, up by $15.6 billion or 0.8 per cent since December. Mutual fund net redemptions were $0.7 billion in January.

ETF assets totalled $388.3 billion at the end of January, up by $5.4 billion or 1.4 per cent since December. ETF net sales were $3.2 billion in January.

January insights

- Mutual fund and ETF assets increased for the third consecutive month. For mutual funds, assets increased by 8 per cent, or by $144.1 billion since October 2023. For ETFs, assets increased by 12.4 per cent or by $42.9 billion.
- Mutual fund net sales were negative overall; however, bond, money market, and specialty funds all saw positive inflows.
- Bond mutual funds were positive for the second consecutive month, bringing in $3.7 billion in net sales – the highest amount, in dollar terms, on record.
- All ETF asset classes had positive net sales except for specialty funds, which experienced outflows driven primarily by net redemptions from Bitcoin ETFs.
- Equity funds brought in just over 75 per cent of total ETF net sales.

Mutual fund net sales/net redemptions ($ millions)*

Asset Class	Jan 2024	Dec 2023	Jan 2023
Long-term funds			
Balanced	(4,544)	(4,584)	(4,400)
Equity	(1,119)	(2,283)	(668)
Bond	3,730	817	3,462
Specialty	747	175	626
Total long-term funds	(1,186)	(5,875)	(981)
Total money market funds	487	790	1,057
Total	(699)	(5,086)	76

Mutual fund net assets ($ billions)*

Asset Class	Jan 2024	Dec 2023	Jan 2023
Long-term funds			
Balanced	904.1	904.3	911.8
Equity	725.5	714.5	683.9
Bond	245.7	242.5	232.3
Specialty	27.9	27.0	23.0
Total long-term funds	1,903.2	1,888.4	1,851.0
Total money market funds	51.8	51.0	35.6
Total	1,955.0	1,939.4	1,886.7

* Please see below for important information regarding this data.

ETF net sales/net redemptions ($ millions)*

Asset Class	Jan 2024	Dec 2023	Jan 2023
Long-term funds			
Balanced	403	237	65
Equity	2,389	1,762	(383)
Bond	321	1,816	(940)
Specialty	(345)	219	492
Total long-term funds	2,768	4,035	(766)
Total money market funds	401	(271)	275
Total	3,168	3,763	(491)

ETF net assets ($ billions)*

Asset Class	Jan 2024	Dec 2023	Jan 2023
Long-term funds			
Balanced	15.6	15.1	12.7
Equity	238.5	233.4	206.6
Bond	94.1	94.6	81.6
Specialty	14.3	14.4	11.4
Total long-term funds	362.5	357.6	312.4
Total money market funds	25.7	25.3	16.5
Total	388.3	382.9	328.9

* See below for important information regarding this data.

IFIC direct survey data (which accounts for approximately 87 per cent of total mutual fund industry assets and approximately 80 per cent of total ETF industry assets) is complemented by estimated data to provide comprehensive industry totals.

IFIC makes every effort to verify the accuracy, currency and completeness of the information; however, IFIC does not guarantee, warrant, represent or undertake that the information provided is correct, accurate or current.

*** Important Information Regarding Investment Fund Data:**

1. Mutual fund data is adjusted to remove double counting arising from mutual funds that invest in other mutual funds.
2. Starting with January 2022 data, ETF data is adjusted to remove double counting arising from Canadian-listed ETFs that invest in units of other Canadian-listed ETFs. Any references to IFIC ETF assets and sales figures prior to 2022 data should indicate that the data has not been adjusted for ETF of ETF double counting.

3. The balanced funds category includes funds that invest directly in a mix of stocks and bonds or obtain exposure through investing in other funds.
4. Mutual fund data reflects the investment activity of Canadian retail investors.
5. ETF data reflects the investment activity of Canadian retail and institutional investors.

About IFIC

The Investment Funds Institute of Canada is the voice of Canada's investment funds industry. IFIC brings together 150 organizations, including fund managers, distributors and industry service organizations, to foster a strong, stable investment sector where investors can realize their financial goals. By connecting Canada's savers to Canada's economy, our industry contributes significantly to Canadian economic growth and job creation. Learn more about IFIC

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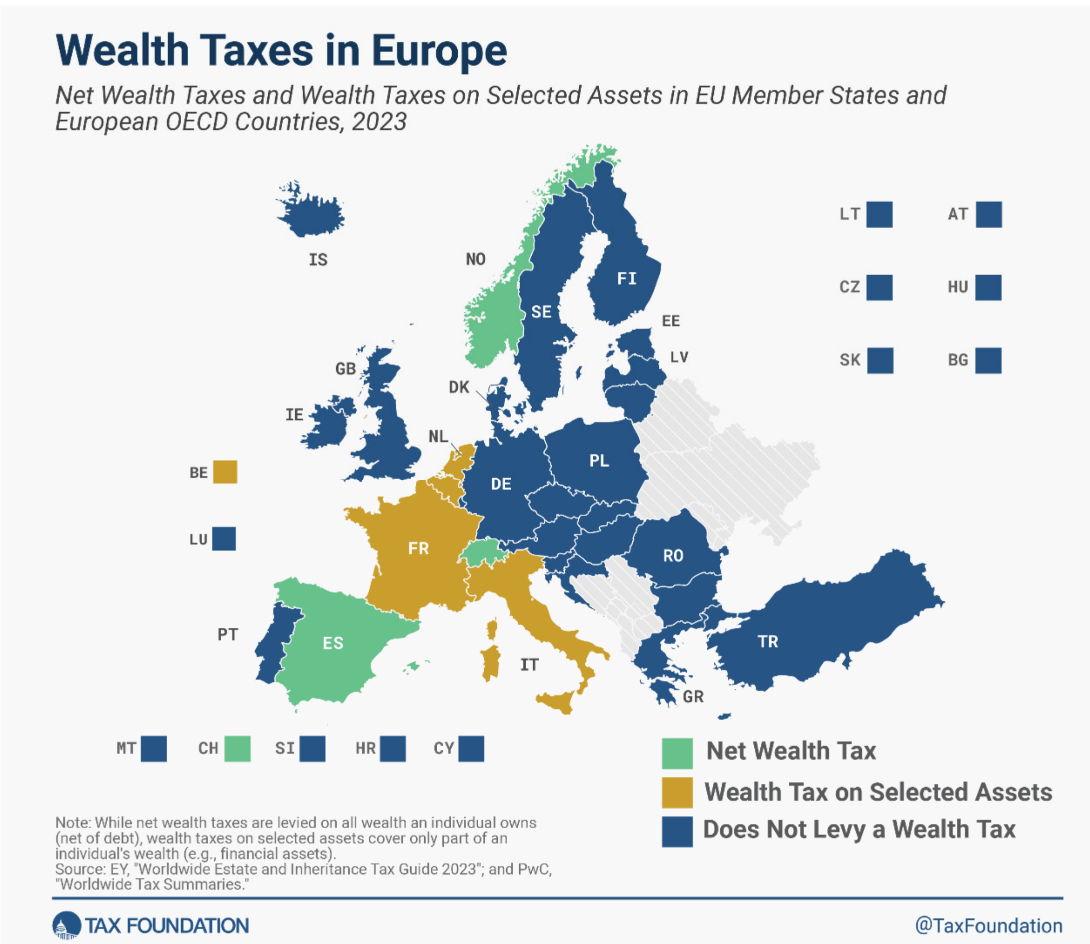
Wealth Taxes in Europe, 2024

February 27, 20244 min readBy: **Cristina Enache**

Net wealth taxes are recurrent taxes on an individual's wealth, net of debt. The concept of a net wealth tax is similar to a real property tax. But instead of only taxing real estate, it covers all wealth an individual owns. As today's map shows, only three countries levy net wealth taxes in Europe—Norway, Spain, and Switzerland. France and Italy levy wealth taxes on selected assets but not on an individual's net wealth per se.



Net Wealth Taxes in Europe

Norway levies a net wealth tax of 1 percent on individuals' wealth stocks exceeding NOK 1.7 million (EUR 150,000 or USD 160,000), with 0.7 percent going to municipalities and 0.3 percent to the central government. Norway's net wealth tax dates to 1892. Additionally, for net wealth exceeding NOK 20 million (USD 1.94 million), the tax rate is 1.1 percent.

Spain's net wealth tax is a progressive tax ranging from 0.16 percent (in Navarra) to 3.5 percent on wealth stocks above EUR 700,000 (USD 757,850; lower in some regions), with rates varying substantially across Spain's autonomous regions (Madrid, Andalusia, Cantabria, and Extremadura offer a 100 percent relief). Spanish residents are subject to the tax on a worldwide basis while nonresidents pay the tax only on assets located in Spain.

Additionally, the Spanish central government introduced a "solidarity wealth tax" in 2022 and 2023 (to be collected in 2023 and 2024) ranging from 1.7 percent to 3.5 percent on individuals with net assets exceeding EUR 3 million (USD 3.25 million). Under this new tax scheme, the central government collects any additional revenue from the solidarity tax once the regional wealth tax collection is deducted. Three regional governments of Madrid, Andalusia, and Galicia appealed the solidarity wealth tax to the Constitutional Court. When the court ruled in December 2023 that the solidarity wealth tax is constitutional (despite what experts argued), the Spanish central government extended the solidarity tax's application until the regional financing system is reformed. Consequently, Madrid, Cantabria, Extremadura, and Andalusia restored the wealth tax so that the regional governments retain the revenues the central government plans to collect in 2024.

Meanwhile, Portugal's decision to extend its tax regime for nonresidents is timely, since more Spanish taxpayers are considering changing their tax residence.

Switzerland levies its net wealth tax at the cantonal level and covers worldwide assets (except real estate and permanent establishments located abroad). The tax rates and allowances vary significantly across cantons. The Swiss net wealth tax was first implemented in 1840.

Wealth Taxes on Selected Assets

France abolished its net wealth tax in 2018 and replaced it that year with a real estate wealth tax. French tax residents whose net worldwide real estate assets are valued at or above EUR 1.3 million (USD 1.41 million) are subject to the tax, as well as non-French tax residents whose net real estate assets located in France are valued at or above EUR 1.3 million. Depending on the net value of the real estate assets, the tax rate ranges as much as 1.5 percent.

Italy taxes financial assets held abroad without Italian intermediaries by individual resident taxpayers at 0.2 percent and 0.4 percent for assets held in certain countries. In addition, real estate properties held abroad by Italian tax residents are taxed at 1.06 percent in 2024, up from 0.76 percent in 2023.

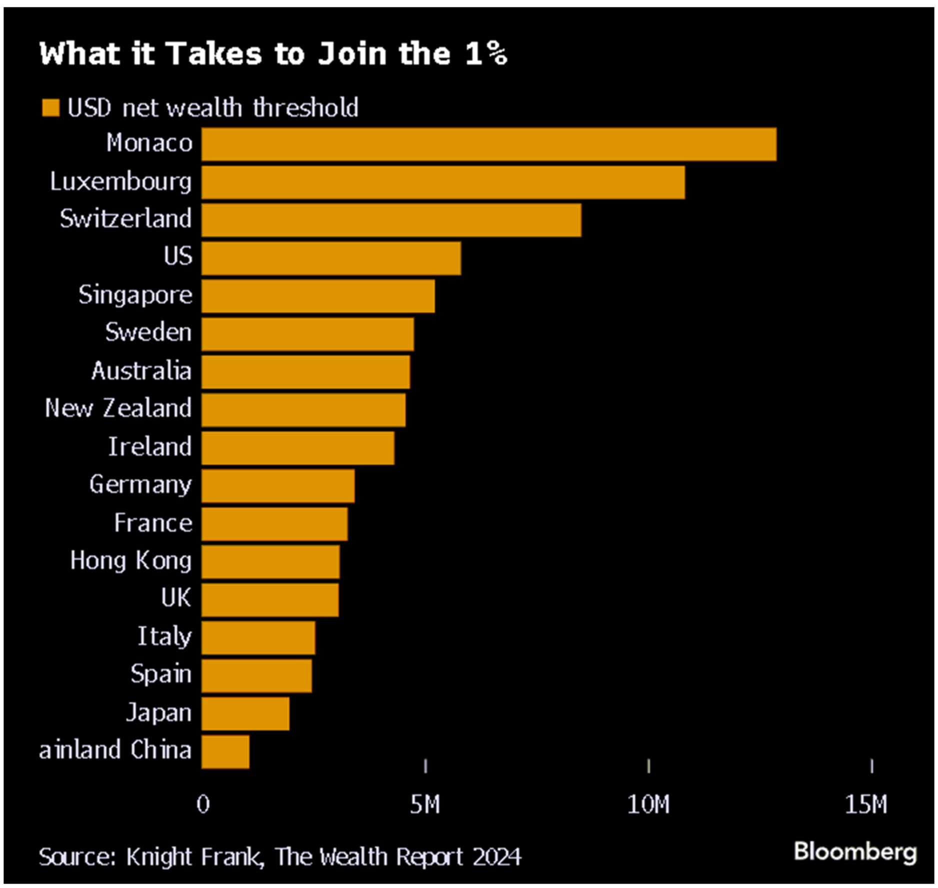
Since 2021**, Belgium** has had a solidarity tax or tax on securities accounts (TSA) of 0.15 percent on securities accounts with an average value of EUR 1 million (USD 1.08 million).

In the **Netherlands**, the value of net wealth, excluding primary residence and substantial interests in companies, is included in the income tax. Nevertheless, the Dutch Supreme Court ruled in 2021 that this system violates European law regarding property rights and non-discrimination. In 2022, a new temporary alternative system for the years 2023, 2024, and 2025 was proposed where each asset category (e.g., savings, debts, and others) would have its own deemed return. For 2024, the weighted average yield over all categories will be applied to the total assets above a personal exemption of EUR 57,000 (USD 61,697) to determine the taxable benefit that will be subject to tax at a flat rate of 36 percent. The government is aiming to have a new system based on actual returns by 2026.

Wealth taxes not only collect little revenue and create legal uncertainty, but an OECD report argues that they can also disincentivize entrepreneurship, harming innovation and impacting long-term growth. Instead of reforming and hiking wealth taxes in Europe, countries should repeal it.

Having $5 Million Is No Longer Enough to Crack the Top 1% in US
2024-02-28 00:01:13.106 GMT

By Benjamin Stupples
(Bloomberg) -- Breaking into the top 1% of wealth in the US is getting harder.
It now takes at least $5.8 million to join the richest echelon in the world's largest economy, almost 15% more than about 12 months ago, according to research from Knight Frank.
Monaco retains the top spot for the highest threshold worldwide at $12.8 million, an increase of 3.2% from a year earlier, while in Luxembourg and Switzerland one needs more than $8 million to make the cut, according to the property broker's 2024 Wealth Report.
The findings underscore how rebounding markets in the US and other Western nations are widening the gap between rich and poor countries. Monaco's gross domestic product per person of roughly $240,000 is more than 900 times greater than that of East Africa's Burundi, according to World Bank data.



Russia's 2022 invasion of Ukraine damaged a global economy just recovering from the pandemic, sending prices for energy and food surging. While that caused problems worldwide, poorer nations that have to import those goods were especially hard hit as borrowing costs increased.
Still, not everyone felt the squeeze. The world's 500 richest people added $1.5 trillion to their combined fortunes

last year, with Tesla Inc. Chief Executive Officer Elon Musk adding the most, according to the Bloomberg Billionaires Index. "Our findings confirm the substantial differences in wealth distribution between countries," Knight Frank said in its report. "Expect greater policy focus on where wealth is located, how it is distributed across economies and how governments can both tax it and encourage its growth."

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Plenary session of the World Russian People's Council

Vladimir Putin addressed, via videoconference, the plenary session of the World Russian People's Council. The key topic of the forum, dedicated to the 30th anniversary of the organisation's establishment, is the Present and Future of the Russian World.

November 28, 202317:55Sochi

During the plenary session of the World Russian People's Council (via videoconference).

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Patriarch Kirill of Moscow and All Russia, as well as representatives of the Russian Orthodox Church and other centralised religious organisations of Russia, government bodies, public associations, prominent academic and cultural figures took part in the event.

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President of Russia Vladimir Putin: Your Holiness, friends,

I would like to welcome all the participants in the World Russian People's Council.

The Council was established in 1993. We remember that time as a very difficult turning point for the country. The Council managed to unite around a common set of goals representatives of the Russian Orthodox Church and other religious organisations, political parties and movements, cultural workers, scholars and scientists, entrepreneurs and people of different beliefs, views and ethnicities who were nonetheless united in one important respect, in their firmly rooted patriotism.

First of all, I want to thank you for your support and contribution to strengthening the Russian state, civil peace and accord, and consolidating society, and for the help you always offer to your compatriots and everybody who is part of the big Russian world.

I know that many representatives of the World Russian People's Council are currently in Donbass and Novorossiya as volunteers and members of military units, protecting our brothers and sisters, millions of people in the Donetsk and Lugansk people's republics, the Kherson and Zaporozhye regions, alongside their brothers-in-arms. I sincerely value the help that the World Russian People's Council provides to the front and the families of our fallen heroes. They fought for us and for our Motherland. They will rest in peace and remain in our memory for eternity. Let us observe a moment of silence.

(A moment of silence.)

Friends, our fight for sovereignty and justice is, without exaggeration, one of national liberation, because we are upholding the security and well-being of our people, and our supreme historical right to be Russia – a strong independent power, a civilisation state. It is our country, it is the Russian world that has blocked the way of those who aspired to world domination and exceptionalism, as it has happened many times in history.

We are now fighting not just for Russia's freedom but for the freedom of the whole world. We can frankly say that the dictatorship of one hegemon is becoming decrepit. We see it, and everyone sees it now. It is getting out of control and is simply dangerous for others. This is now clear to the global majority. But again, it is our country that is now at the forefront of building a fairer world order. And I would like to stress this: without a sovereign and strong Russia, no lasting and stable international system is possible.

We know the threat we are opposing. Russophobia and other forms of racism and neo-Nazism have almost become the official ideology of Western ruling elites. They are directed not only against ethnic Russians, but against all groups living in Russia: Tatars, Chechens, Avars, Tuvinians, Bashkirs, Buryats, Yakuts, Ossetians, Jews, Ingush, Mari and Altai. There are many of us, I might not be able to name every group now, but again, the threat is directed against all the peoples of Russia.

The West has no need for such a large and multi-ethnic country as Russia as a matter of principle. Our diversity and unity of cultures, traditions, languages, and ethnicities simply do not fit into the logic of Western racists and colonisers, into their cruel plans for total depersonalisation, separation, suppression, and exploitation. That is why they have started their old rant again: they say that Russia is a “prison of nations” and that Russians are a “nation of slaves.” We have heard this many times throughout the centuries. Now we have also heard that Russia apparently needs to be “decolonised.” But what do they really want? They want to dismember and plunder Russia. If they cannot do it by force, they sow discord.

I would like to emphasise that we view any outside interference or provocations to incite ethnic or religious conflict as acts of aggression against our country, and an attempt to once again wield terrorism and extremism as a weapon against us, and we will respond accordingly.

We have a large and diverse country. This diversity of cultures, traditions and customs creates greater strength, a tremendous competitive advantage and potential. We must continuously strengthen it, treasure this diverse accord, which is our common asset. I would like all the regional governors to focus on this, and I count on the authority of the pastors in our traditional religions and the responsibility of all political forces and public organisations.

I believe we all remember, and must remember, the lessons of the 1917 revolution, the subsequent Civil War, and the disintegration of the USSR in 1991. It may seem like many years have passed since then, but people of all ethnicities living today, even those born in the 21st century are still paying now, decades later, for the miscalculations made at that time – indulgences in separatist illusions, the weakness of the central authority, and a policy of artificial, forced division in this large Russian nation, a triune of Russians, Belarusians and Ukrainians. The bloody conflicts that emerged after the

Russian Empire and the Soviet Union not only continue to smoulder but sometimes flare up with renewed energy. These wounds will not be healed for a long time.

We will never forget these mistakes and should not repeat them. I would like to emphasise once again – any attempt to sow ethnic or religious discord, to split our society is betrayal, a crime against all of Russia. We will never allow anyone to divide Russia – the only country we have. Our prayers are for this, our homeland, and they are expressed in different languages.

I would like to recall for this audience the words of St Gregory of Nazianzus: "Honouring your mother is a sacred thing. But everyone has their own mother, whereas the Motherland is our common mother."

Your Holiness, colleagues. The theme of this Council session is "The Present and Future of the Russian World." The Russian world embraces all generations of our predecessors and our descendants that will live after us. The Russian world means Ancient Rus, the Tsardom of Muscovy, the Russian Empire, the Soviet Union, and modern Russia that is reclaiming, consolidating, and augmenting its sovereignty as a global power. The Russian World unites all those who feel a spiritual affinity with our Motherland, who consider themselves Russian speakers, and carriers of Russian history and culture regardless of their ethnicity or religion.

But I would like to emphasise that the Russian world and Russia itself do not and cannot exist without Russians as an ethnicity, without the Russian people. This statement does not contain any claim to superiority, exclusivity or chosenness. This is simply a fact just like our Constitution's clear definition of the status of the Russian language as the language of a state-forming nation.

Being Russian is more than a nationality. By the way, this has always been the case throughout our country's history. Among other things, it includes cultural, spiritual, and historical identity. Being Russian is, above all, a responsibility. To reiterate, it is about the enormous responsibility to safeguard Russia, and this is what true patriotism is all about. As a Russian, I am here to say that only a united, strong, and sovereign Russia can guarantee the future and independent development of the Russian people and all other peoples who have lived within the borders of our country for centuries and are united by a common historical destiny.

What does sovereignty mean for our state, for each family, and for each person? What is its value and true essence? Primarily, it is freedom. Freedom for Russia and our people and, therefore, for each one of us, because in our tradition, a person cannot feel free unless his loved ones, his children and his Fatherland are free. Our soldiers and officers, men and women of our country, are defending this genuine freedom.

A free nation that understands its responsibility before current and future generations is the only source of power, sovereign power, which is called upon to serve all people, rather than someone's private, corporate, class, or even foreign interests.

A truly free person is a creator. We will support everyone's aspiration to be useful to the country, society, and people. This is what sovereign development in the national interests is made of.

We are faced with the daunting task of developing vast areas from the Pacific to the Baltic Sea and the Black Sea. Our economy, industry, agriculture, innovative industries, creative industries, and national businesses must increase their capacity multiple times over.

I am now reaching out to entrepreneurs who I know are many in this audience. I would like to thank you, friends, for your coordinated efforts. We have thwarted the unprecedented economic aggression of the West by uniting the efforts of the state and business. Its sanctions Blitzkrieg has failed.

Russia will step up support for sovereign national entrepreneurship. We have fundamentally new tools being developed for that right now. Invest in Russia, create new jobs, expand production, and participate in personnel training. If you do that, the national economy will grow, creating more success and opportunities for your companies. By focusing on strengthening sovereignty, national businesses are growing stronger and more sovereign themselves as they shed dependence on the components of the current world order.

The sovereign development of the country, its economy, business, the social sector should bring well-being to all people, all Russian families, and, thus, be fair. This is not about a primitive one-size-fits-all approach. Justice means primarily decent living conditions, modern facilities for culture, healthcare and sports in all regions of the country. This means a qualified and well-paid job and high public prestige for workers, engineers, teachers, doctors, artists, cultural figures, entrepreneurs, every responsible specialist and master. Justice means equal, broad opportunities for study, for a start in life and self-fulfilment for youth.

The West is now pursuing a “cancel culture” policy, but this is, in fact, a renunciation of humanitarian education. As a result, both culture and education are becoming primitive. Many traditional subjects are simply being thrown out of Western academic programmes and replaced by some gender or other similar sciences – pseudo sciences, of course. In the meantime, we need a real breakthrough in cultural life. And we have a lot to learn in this respect from our predecessors that set the tone for the entire world in both traditional and, by the way, avant-garde art. I am convinced that the country’s sovereignty and strengthening its role in the world are impossible without a flourishing, distinctive culture in all of its manifestations.

And, of course, we should take all the best achievements made by the domestic and global systems of traditional education. Importantly, our schools and universities must be modern and open to all advanced ideas.

We need an integral holistic approach to education with family, education, national culture, children’s, youth, sports and military-patriotic organisations, large-scale mentoring movements; and let me add, the wise word of our spiritual clergy harmoniously supplement each other. The latter is simply essential.

Yes, the Church is separate from the state and the Patriarch [Kirill] has told me more than once that despite this fact we have developed unique relations between the Church and the state. I would like to note in this context that the Church cannot be separated from society or from people. I fully agree with this. And this is why I would like to emphasise again the importance of the participation of representatives of all traditional Russian religions in the education and upbringing of our youth, and of course, in the consolidation of spiritual, moral, and family values. The involvement of the clergy from all traditional religions is an enduring value.

Your Holiness, friends,

You know that the Executive Order declaring next year – 2024 – the Year of the Family in Russia has already been signed. And I would like to say that this decision is indeed based on the position of the absolute majority of our society. I am sure the World Russian People's Council unanimously supports it as well.

Here is what I would like to say and make clear. We will not overcome the daunting demographic challenges facing us solely with money, social benefits, allowances, privileges, or dedicated programmes. True, the amount of the budget's demographic spending is extremely important, but that is not all there is to it. A person's points of reference in life matter more. Love, trust, and a solid moral foundation are what the family and the birth of a child are built on. We must never forget this.

Thankfully, many of our ethnic groups have preserved the tradition of having strong multigenerational families with four, five, or even more children. Let us remember that Russian families, many of our grandmothers and great-grandmothers had seven, eight, or even more children.

Let us preserve and revive these excellent traditions. Large families must become the norm, a way of life for all Russia's peoples. The family is not just the foundation of the state and society, it is a spiritual phenomenon, a source of morality.

All levels of government, our economic, social and infrastructure policies, education and awareness-raising, and healthcare should be engaged without exception in the work of supporting families, mothers and children. All public organisations and our traditional religions should focus on strengthening families as well. Preserving and increasing the population of Russia is our goal for the coming decades and even generations ahead. This is the future of the Russian world, the millennium-old, eternal Russia.

Your Holiness, friends, we have many ambitious goals before us, and fulfilling them requires a truly concerted effort, which we are ready for. We have become stronger. Our historical regions have returned to Russia. Society is rejecting everything superficial and turning to true and genuine values.

Pyotr Stolypin emphasised that law based on national power takes precedence. Together, we have shown such national strength and national will, the determination to uphold our fundamental interests, the fundamental interests of the people of Russia, to be guided not by someone else's borrowed views, but by our own sovereign worldviews, our understanding of how the family and the entire country should live, and to build Russia for ourselves and our children.

I would like to thank you again for your support and patriotism and, of course, to congratulate you on the occasion of the 30th anniversary of the World Russian People's Council.

I would like to address special words of thanks to its head, Patriarch Kirill of Moscow and All Russia.

I am aware of your tireless work, Your Holiness, to bring about the spiritual revival of Russia and of the importance and influence of your position. I want to emphasise this. Under your leadership, the Russian Orthodox Church, clergy, and laity do much to implement social, charitable, and volunteer projects. I am also aware of the support provided to our servicemen and their families and how eagerly our soldiers and officers on the frontlines seek out the Patriarch's words.

I am pleased today, at the World Russian People's Council, to congratulate you on being awarded the 2023 Presidential Prize for your contribution to strengthening the unity of the Russian nation. You have my deepest respect. I wish the Council every success in its work.

Thank you.

<…>

Vladimir Putin: Your Holiness, friends.

If I may, just two or three words about what has just been said.

Firstly, I agree that we still need to do a lot to improve the living conditions of large families and families with children in general. As you can probably see, the government is constantly focusing on this. It is no coincidence that we are declaring next year the Year of the Family: to look for the most effective, relevant, important and feasible measures for the state to support families with children in today’s conditions, at events like this and during discussions with deputies and representatives of various factions in the State Duma and public organisations.

This also includes, of course, preferential mortgages and more; but also unifying or focusing on the most effective ways of support in the form of various benefits, or combining various things. But I will not repeat this now; we have an entire big programme built, which probably has no precedent in the history of Russia. Of course, there is always something to work on; I understand perfectly what my colleague meant.

Of course, a large family with a large number of members needs separate housing, and housing construction needs to be improved. That is what we are doing. The point is that all this, everything that is being done, must be more accessible than today. This is obvious. This also applies to various options for supporting families.

But, let me say this again, I am very thankful to His Holiness the Patriarch for organising events like this one, because this provides us with the opportunity to talk, discuss, and hear each other. We will certainly work on this.

Now, concerning the fact that, 12 years after the Great Patriotic War, the entire world learned the Russian word "sputnik," it signifies the progress that the country was able to achieve even during the most difficult times. I want to emphasise that it became possible because, even during the most critical moments of the Great Patriotic War, our nuclear physicists and missile developers continued to work on those technologies, on what was strategically important and necessary, even though at that time, there was nothing more important than, say, guarding the front or achieving another victory on the battlefield. However, the country always thought about the future.

Of course, we must do the same. We must always, regardless of circumstances, think about the future of our people and our state. We do so and we will in the future.

(Applause)

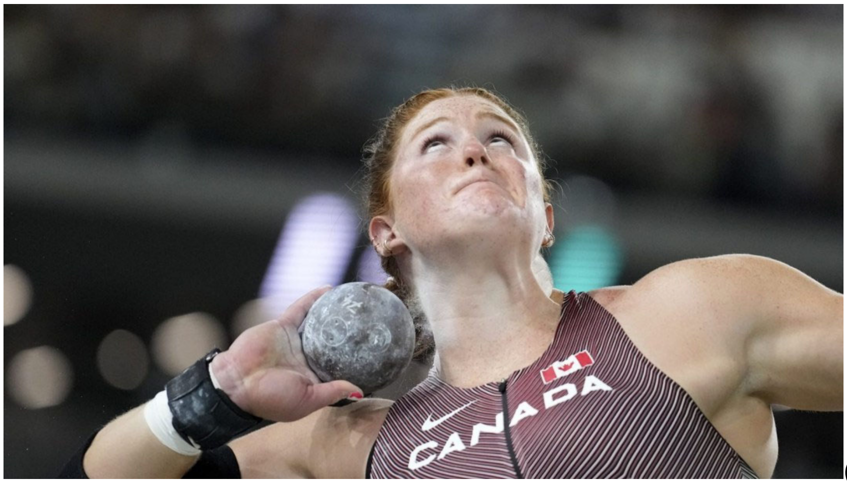
Thank you for your applause.

Finally, I would like to draw your attention to certain things that the Holy Patriarch mentioned. He quoted a Soviet song, "We will destroy the old world…" and so on. As His Holiness said, we will create a new building on the debris. That was what the Soviet government planned after the 1917 Socialist revolution. Everything seemed to be debris. But I believe that it was not debris but seeds from which a new Russian and Soviet statehood grew. Because only 24 years later, despite all the attempts to root out both the religious mindset and our cultural roots… Still, 24 years later… Let me just remind you, the Great Patriotic War started – and what happened? Remember how Molotov addressed the Soviet people with news about the war breaking out? How did he address them? "Citizens." And, a few days later, Stalin addressed them as "brothers and sisters." They immediately remembered about God, church and our eternal traditions.

The same continues today. It is not possible to root it out. It is the very essence of Russia and our nation. We will always look forward and move forward while relying on our centuries-long traditions and spiritual roots.

Thank you for doing this. Thank you and all the best.

https://olympic.ca/2024/02/27/shot-putter-sarah-mitton-on-her-olympic-goals-and-inspiring-the-next-generation/



(AP Photo/Matthias Schrader)

Shot putter Sarah Mitton on her Olympic goals and inspiring the next generation

February 27, 2024

By Caela Fenton

In 2022, Sarah Mitton made the world take notice as, after years of steady work, she emerged as one of the best shot putters in the world.
That season saw her capture three Diamond League medals, finish fourth at the World Athletics Championships, and get a gold medal at the Commonwealth Games. She also became the first Canadian woman to surpass the 20-metre mark in shot put.

The 2023 season saw even more greatness from Mitton as she snagged her first Diamond League win along with two silver medals. But her biggest breakthrough was winning Canada's first ever world championship medal in women's shot put with her silver medal performance in Budapest.

Canada's Sarah Mitton from Brooklyn, N.S. reacts to a throws on the way to winning a gold medal in the shot put at the Commonwealth Games in Birmingham, England on Wednesday, Aug. 3, 2022. THE CANADIAN PRESS/Andrew Vaughan

Mitton will certainly be one to watch heading into the Paris 2024 Olympic Games. After years of being considered a dark horse or underdog, the 27-year-old from Brooklyn, Nova Scotia is embracing her new status with humility and grace. Alongside pole vaulter Alysha Newman, Mitton will captain Team Canada's squad at the 2024 World Athletics Indoor Championships, taking place March 1-3 in Glasgow, Scotland.
We caught up with the proud East Coaster to chat about her incredible performance trajectory, her goals heading towards her second Olympic Games, and what it means to her to inspire a younger generation of Canadian throwers.

O.ca: What's it like having that small town and provincial love supporting you?
SM: It's pretty much this unconditional love. Most of the people who are in my hometown either know my parents, they babysat me, they coached me or taught me or checked me out at the grocery store, so it just feels like they've all been on this journey with me and watched me grow up.
When 2021 didn't go the way that I wanted it to, still when I went home for a visit I was just met with nothing but absolute positivity and excitement. And it was almost overwhelming because I didn't feel that way necessarily. The support they've given me over the last 26 years is incredible.

You were so close to the World Athletics Championships podium in 2022–it went into tiebreakers! How did that result impact your mindset and preparation heading into 2023?
SM: It was a super interesting moment for me because I had gone the year before [to the world championships] and I was [ranked] in the low 20s at the Olympics. So I'd gone from being someone who didn't make the final to someone who auto-qualified on the second throw. That's a big difference.
Someone afterwards was like 'Oh man, fourth place!' and I realized that I guess I was supposed to be a little sad about that. But that part didn't really click in until afterwards because I was just so proud of where I had come from.

Canadian shot put thrower Sarah Mitton throws during the group A qualification round during the Tokyo 2020 Olympic Games on Friday, July 30, 2021. Photo by Mark Blinch/COC

So then 2023 happens and you get your world championship medal and you get a Pan Am gold. How does that reshuffle again your perspective on goals looking towards 2024?

SM: At the 2023 World Championships, I was looking for that gold medal. But having never won a world championship medal before, I was happy to come away with the silver. I have a Commonwealth gold medal, a Pan Am gold medal, so I want the World Championship and Olympic golds to complete the set!

But I do think coming second this year was kind of a blessing. I'm not defending anything. I proved that I'm no longer an underdog, but I still have lots of goals to chase.

What does it mean to be a history-making athlete for Canada?

SM: The 2023 World Athletics Championships were such a historic championship for Canada.

Watching Camryn Rogers and Ethan Katzberg come out and destroy the fields, I was like okay–let's go throwers! I wanted to be a part of the throwing history that was happening.

READ: 5 fun facts about world champion hammer thrower Ethan Katzberg

And the only way to do that was go out there and put out the best performance of my life.

I was so inspired by Camryn and Ethan's performances, and then I was down there on the field in the mix of the rankings, and the next thing I know, Marco Arop is running by to win the gold medal in the men's 800m.

I looked over at my coach, and he goes: your turn. So many of my own teammates inspire me.


Sarah Mitton of Canada wins the gold medal in the Women's Shot Put finals during the Santiago 2023 Pan American Games on Thursday, November 02, 2023. Photo by Thomas Skrlj/COC

What advice would you give to someone watching shot put for the first time?
SM: That's an interesting question. I would say that if they're watching qualification rounds, there's a line called the auto-qualification line. If you throw over it, you're automatically advanced to the final. It doesn't matter if it's your first throw or your third. Sometimes people get a little lost when all of a sudden half the field is no longer throwing.
My second advice would be to watch for the big throws and the celebrations. The amount of energy and effort that goes into creating a big throw is huge, but sometimes watching the post-throw celebration is even more fun. We're all a little quirky in the throws, so sometimes they're kind of dorky and fun and whatnot, but there's so much energy and excitement. We really do put on a show.

How quickly do you know whether you've had a good throw?
SM: Immediately. I know if it's a good throw and I know if it's a bad throw. You know if it's a good throw when you can feel the ball pushing and pushing on your fingertips and then it just comes out with a flick and it's gone. It's such a smooth feeling. But if you muscle it too much, it feels like it's all arm.

Sarah Mitton of Canada competes in the Women's Shot Put finals during the Santiago 2023 Pan American Games on Thursday, November 02, 2023. Photo by Thomas Skrlj/COC

For you now, what do you consider a good throw?

SM: I would say anything over 19.80 [metres] for me right now, I would think is a great throw. If I throw above 19.50, I'm content, I know I can build off of it, especially if it's in the early rounds. But as we look towards Paris, I'm looking to be more in the 20.50s range, potentially higher depending on how well my training is coming together. Just trying to create another historic moment in Paris!

On days when training is tough and it's a grind, what motivates you to keep pushing through?

SM: Hmm. I would say I'm divided between motivation and discipline. I'm definitely not motivated every day…I'm not motivated to do most of my workouts every day–they're really hard! But for me, the motivation comes from little things that people have told me over the years about the impact that, as silly as it sounds, this ball that I throw has had on them.

One of the things that I love hearing is that a young girl wants to try shot put because of me. This has been a male dominated sport for so long and hearing that motivates me.

It's super inspiring to see more and more young girls in any sport, but in my own sport, which is such a strength and power sport, hearing young girls say that they want to be like me, or like Camryn, just really makes me feel like I'm seeing the fruits of my labour.

https://jamesclear.com/great-speeches/dont-give-up-by-jim-valvano

"Don't Give Up"

delivered by **JIM VALVANO**

Background

Jim Valvano (Jimmy V) was an American basketball player, coach, and broadcaster. In this speech, given shortly before he died from cancer, Valvano announced the beginning of the V Foundation for Cancer Research. This speech was originally delivered at the ESPYs on March 4, 1993.

Speech Transcript

I can't tell you what an honor it is to even be mentioned the same breath with Arthur Ashe. This is something I certainly will treasure forever. But as was said on the tape, and also, I don't have one of those things going with the cue cards, so I'm going to speak longer than anybody else who's spoken tonight. That's the way it goes. Time is very precious to me. I don't know how much I have left and I have some things that I would like to say. Hopefully at the end, I'll have something that will be important to other people, too, but I can't help it. Now when I'm fighting cancer, everybody knows that, and people ask me all the time about how you go through your life and, "How's your day?"

And nothing has changed for me, as Dick said. I'm a very emotional, passionate man. I can't help it, that's being the son of Rocco and Angelina Valvano. It comes with the territory, right? We hug, we kiss, we love.

And when people say to me, "How do you get through life?" Each day's the same thing. To me, there are three things we all should do every day. If we do this every day of our life, you're going to … What a wonderful … Number one is laugh. You should laugh every day. Number two is think, you should spend some time in thought. And number three is you should have your emotions moved to tears. Could be happiness or joy, but think about it. If you laugh, you think, and you cry, that's a full day. That's a heck of a day. You do that seven days a week, you're going to have something special.

And so, I can't help … I rode on the plane up today with Mike Krzyzewski, my good friend, and a wonderful coach. What people don't realize, he's a 10 times better person than he is a coach and we know he's a great coach. He's meant a lot to me in these last five or six months with my battle. But when I look at Mike, I think we competed against each others as players. I coached against him 15 years, and I always have to think about what's important in life. To me, it's three things: where you started, where you are, and where you're going to be. Those are the three things that I try and do every day. And when I think about getting up and giving a speech, I can't help it. I have to remember the first speech I ever gave. I was coaching at Rutgers University. That was my first job.

And I was the freshman coach. That's when freshmen played on freshmen teams. And I was so fired up about my first job. I see Lou Holtz, Coach Holtz here. What was it like the first job you had, right? The very first time you stood in the locker room to give a pep talk. That's a special place, the locker room, for a coach to give a talk. So my idol as a coach was Vince Lombardi. And I read this book called Commitment to Excellence by Vince Lombardi. And in the book, Lombardi talked about the first time he spoke before his Green Bay Packer team in a locker room, they were perennial losers. And I'm reading this, and Lombardi said, he was thinking, "Should it be a long talk? A short talk?" But he wanted to be emotionally, so he said, Be brief."

And this is what he did. Normally, you get in a locker room, I don't know, 25 minutes, a half hour before the team takes the field. You do your little X and O's, and then you give the great Knute Rockne talk, we all do. Speech number 84, you pull them right out, you get ready, get your squad ready. Was the first one I ever gave. And I read this thing, Lombardi, what he said was, he didn't go in, he waited. His team was wondering, "Where is he? Where's this great coach?" He's not there. 10 minutes, he's still not there. Three minutes before they have to take the field, Lombardi comes in, bangs the door open, and I think you all remember what great presence he had, right? Great presence. And he walked in and he just walked back and forth like this, just staring at the players. And he said, "All eyes on me."

And I'm reading this in his book, I'm getting a picture of Vince Lombardi before his first game. And he said, "Gentlemen, we will be successful this year. You can focus on three things and three things only. Your family, your religion, and the Green Bay Packers." And the rest of them, they knocked the walls down, the rest was history. I said, "That's beautiful! I'm going to do that." Your family, your religion and Rutgers basketball. That's it. I had it. Listen, I'm 21 years old. The kids I'm coaching are 19, all right? And I'm going to be the greatest coach in the world, the next Lombardi. And I'm practicing right beside the locker room, the manager's telling me, "You gotta go in." Not yet, not yet. Family, religion, Rutgers basketball. All eyes on me. I got it, I got it.

And now finally he said, "Three minutes!" I said, "Fine." True story, I go to knock the doors open just like Lombardi. Boom. It didn't open. I almost broke my arm. It didn't open, now I'm down, the players are looking. "Yo, coach. Help the coach up, help him up." And now I did like Lombardi, I walked back and forth, and I was going like that with my arm, get the feeling back in it. And finally I said, "Gentlemen, all eyes on me." and these kids wanted to play, they're 19, "Let's go." I said, "Gentlemen, we'll be successful this year. If you could focus on three things and three things only." I said, "Your family, your religion, and the Green Bay Packers." I did that. I remember that.

I remember where I came from. It's so important to know where you are. I know where I am right now. How do you go from where you are to where you want to be? And I think you have to have an enthusiasm for life. You have to have a dream, a goal you have to be willing to work for.

I talked about my family. My family is so important. People think I have courage. The courage in my family is my wife Pam, my three daughters here, Nicole, Jamie, Leanne, my mom who is right here, too.

I just got one last thing. I urge all of you, all of you, to enjoy your life, the precious moments you have to spend each day with some laughter and some thought, to get your emotions going, to be enthusiastic every day. Ralph Waldo Emerson said, “Nothing great can be accomplished without enthusiasm to keep your dreams alive in spite of problems.” Whatever you have, the ability to be able to work hard for your dreams to come true, to become a reality. Now I look at where I am now and I know what I want to do. What I would like to be able to do is to spend whatever time I have left and to give maybe some hope to others. The Arthur Ashe foundation is a wonderful thing. And AIDS, the amount of money pouring in for AIDS is not enough, but it is significant.

But if I told you it’s 10 times the amount that goes in for cancer research, I also tell you that 500,000 people will die this year of cancer. And I’ll also tell you that one in every four will be afflicted with this disease. And yet somehow we seem to have put it in a little bit of the back burner. I want to bring it back on the front table. We need your help. I need your help. We need money for research. It may not save my life, it may save my children’s lives. It may save someone you love. And it’s important. And ESPN has been so kind to support me in this endeavor and allow me to announce tonight that with ESPN’s support, which means what? Their money, and their dollars, and they’re helping me. We are starting the Jimmy V Foundation for cancer research.

And its motto is, “Don’t give up. Don’t ever give up.” And that’s what I’m going to try to do every minute that I have left. I will thank God for the day and the moment I have. And if you see me smile and maybe give me a hug cause that’s important to me, too. But try if you can, to support, whether it’s AIDS or the cancer foundation, so that someone else might survive, might prosper, and might actually be cured of this dreaded disease.

I can’t thank ESPN enough for allowing this to happen and I’m going to work as hard as I can for cancer research. And hopefully we’ll be … maybe we’ll have some cures and some breakthroughs, and I’d like to think I’m gonna fight my brains out to be back here again next year for the Arthur Ashe recipient. I want to give it next year.

I know I’ve got to go. I’ve got to go, and I got one last thing. I’ve said it before and I’m gonna say it again. Cancer can take away all my physical abilities. It cannot touch my mind. It cannot touch my heart. And it cannot touch my soul. And those three things are going to carry on forever. I thank you and God bless y’all.

Dan Tsubouchi @Energy_Tidbits · 50m ·

Kurdistan #Oil exports shut at least 2 more months?

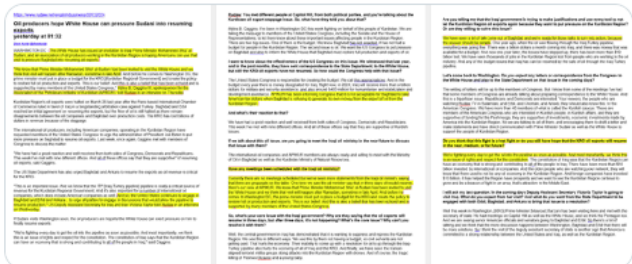
AKIPUR hopes US can pressure Iraq PM Sudani to resume exports at his late Apr White House visit.

AKIPUR reminds Iraq budget depends on US funding!

Great interview @diyarkurda!

#OOTT...

Show more



Dan Tsubouchi @Energy_Tidbits · 13h ·

Breaking!

AKIPUR (Kurdistan oil industry association) says no deal has been made to restart Kurdistan #Oil exports

...

1 1 716

Dan Tsubouchi @Energy_Tidbits · 41m

Who did it?

Feb 24: "*3 submarine internet cables running through the region [Red Sea] suddenly dropped service in some of their markets. The cuts weren't enough to disconnect any country ...*" Houthis said not them.

Reports @DrewFitzGerald

#OOTT

...

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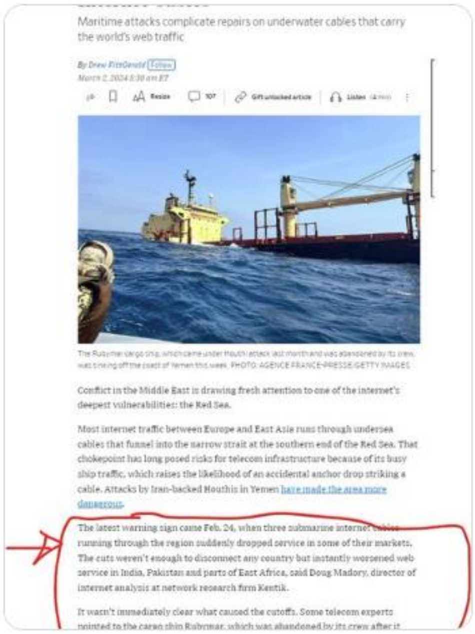

Maritime attacks complicate repairs on underwater cables that carry the world's web traffic

By Drew FitzGerald Follow

March 2, 2024 5:30 am ET

Resize 107 Gift unlocked article Listen

The Rubymar cargo ship, which came under Houthi attack last month and was abandoned by its crew, was sinking off the coast of Yemen this week. PHOTO: AGENCE FRANCE-PRESSE/GETTY IMAGES

Conflict in the Middle East is drawing fresh attention to one of the internet's deepest vulnerabilities: the Red Sea.

Most internet traffic between Europe and East Asia runs through undersea cables that funnel into the narrow strait at the southern end of the Red Sea. That chokepoint has long posed risks for telecom infrastructure because of its busy ship traffic, which raises the likelihood of an accidental anchor drop striking a cable. Attacks by Iran-backed Houthis in Yemen have made the area more dangerous.

The latest warning sign came Feb. 24, when three submarine internet cables running through the region suddenly dropped service in some of their markets. The cuts weren't enough to disconnect any country but instantly worsened web service in India, Pakistan and parts of East Africa, said Doug Madory, director of internet analysis at network research firm Kentik.

It wasn't immediately clear what caused the cutoffs. Some telecom experts pointed to the cargo ship Rubymar, which was abandoned by its crew after it

2 1 392

SAF

Dan Tsubouchi @Energy_Tidbits · 5h ·

Breaking!

AKIPUR (Kurdistan oil industry association) says no deal has been made to restart Kurdistan #Oil exports

Rather, AKIPUR hasn't even seen any proposal to restart and see "*no concrete progress towards that end*" since Jan 7-9 Baghdad meetings.

#OOTT

https://www.apikur.uk/publications/apikur-denies-government-of-iraq-claims-of-a-deal-to-resume-oil-exports-from-iraq-s-kurdistan-region/

02 MAR 2024

APIKUR denies Government of Iraq claims of a deal to resume oil exports from Iraq's Kurdistan Region

APIKUR denies claims by Government of Iraq (GoI) officials that an agreement has been reached among the GoI, the Kurdistan Regional Government (KRG), and international oil companies (IOCs) to resume oil exports through the Iraq-Türkiye All changes have been saved

APIKUR's member companies would welcome the reopening of ITP. Regrettably, to date, we have not even seen any proposals from GoI or KRG for the agreements that would be required to do so.

Recently there have been several unfounded media statements by senior GoI officials that a deal has been reached for IOCs to resume exports through the ITP. We do not understand the motivation for such misinformation but note that Iraq is reportedly losing $1 billion for each month that ITP remains closed.

APIKUR, also, notes that meetings were held in Baghdad on January 7-9, 2024, between representatives of the GoI, the KRG, and IOCs — including representatives of several APIKUR member companies. But, thus far, there has been no concrete progress towards that end presented to the members of APIKUR.

APIKUR member companies stand ready to meet again with GoI and KRG officials to swiftly resolve the issues to the benefit of all.

About APIKUR:

APIKUR's objective and purpose is to promote the KRI as an attractive destination for international oil and gas companies, service providers and investors. In addition, APIKUR aims to advocate for and represent the common interests of its members, function as a joint and effective voice towards all relevant stakeholders whether in the KRI, or elsewhere, and provide a forum for its members to share appropriate public industry information and best practices.

For more information, visit www.apikur.uk

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Find APIKUR on Social Media:
X: @apikur_oil
LinkedIn: https://www.linkedin.com/company/apikur

3 15 2.4K

SAF

Dan Tsubouchi @Energy_Tidbits · 6h

#Oil floating storage 67.43 mmb Mar 1,

Seems floating is normalizing at lower (<80 mmb) levels as refiners/tankers have had ~5 wks to work in longer tanker trips.

ie. longer tanker trips = lower floating storage especially if OPEC+ keeps cuts?

Thx @vortexa @business #OOTT

Vortexa Crude Oil Floating Storage Estimate Jan 1, 2020 – Mar 1, 2024, Posted as of 9am MT, Mar 2

Source: Bloomberg, Vortexa

Posted Mar 2, 9am MT | Feb 24, 9am MT | Feb 17, 9am MT

Source: Bloomberg, Vortexa

Vortexa Crude Oil Floating Storage by Region (mmb)				Original Posted	Recent Peak	
Region	Mar 1/24	Feb 23/24	WoW	Feb 23/24	Jun 23/23	Mar 1 vs Jun 23
Asia	32.53	40.51	-7.98	40.21	73.45	-40.92
Europe	6.83	4.57	2.26	3.66	6.21	0.62
Middle East	7.69	7.08	0.61	5.29	6.76	0.93
West Africa	5.10	5.92	-0.82	4.68	7.62	-2.52
US Gulf Coast	0.13	0.13	0.00	0.18	1.05	-0.92
Other	15.15	13.55	1.60	10.49	37.45	-22.30
Global Total	67.43	71.76	-4.33	64.45	132.54	-65.11

Vortexa crude oil floating storage posted on Bloomberg 9am MT on Mar 2
Source: Vortexa, Bloomberg

5 · 21 · 1.7K

SAF

Dan Tsubouchi @Energy_Tidbits · 21h

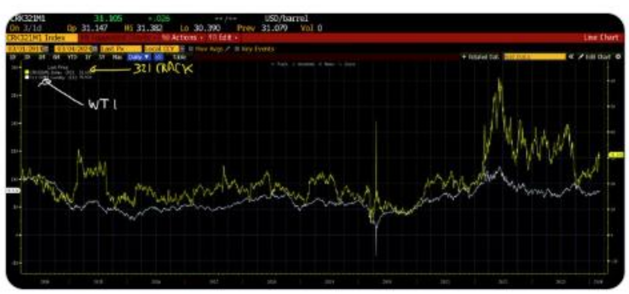
Positive for Oil next week.

321 crack spreads +$0.50 WoW to close at $31.11 .

Spreads >$30 provide big incentive for refineries to keep up runs and, if possible, defer maintenance.

Refineries taking as much #Oil as possible tends to drag up Oil prices a bit. #OOTT Thx...

Show more



11 · 49 · 4.7K

Dan Tsubouchi @Energy_Tidbits · Mar 1

Breaking!

State of Nuevo Leon authorities closed Pemex Cadereyta refinery Following Pemex "refusal to collaborate with the state Ministry of the Environment" reports @ElFinanciero_Mx

Cadereyta processed 169,413 b/d in Jan so, until reopened, frees up more MEX oil for export....

Show more

> **Dan Tsubouchi** @Energy_Tidbits · Feb 29
>
> Another positive for Cdn WCS oil in 2024 is ramping up.
>
> Increased #Oil refined in MEX Pemex refineries = less heavy/medium oil for export
>
> ...
>
> Show more

Pemex Refineries Process Most Crude in More Than 6 Years
2024-02-29 18:00:51.160 GMT

By Lucia Kassai
(Bloomberg) -- Pemex cranked up rates at its domestic refineries to the highest utilization rates since May 2017, according to company data compiled by Bloomberg.
* Utilization rate rose to 58.6% in January vs 50.6% in December
** Mexico's six refineries have capacity to process 1.627m b/d of crude, according to Pemex
* Pemex didn't disclose data for its new Olmeca refinery, also known as Dos Bocas, which started operations in September
** Refinery should start producing fuels on Feb. 28, president Andres Manuel Lopez Obrador said on the X platform
* Unclear if company will be able to maintain high utilization rates in coming months after an incident at the Tula refinery this month
* Here's the data by refinery:

Refinery	January (b/d)	m/m	y/y	Capacity use	NOTE
Cadereyta	169,413	8.7%	68%	61.6%	highest since April 2017
Madero	117,531	16%	27%	61.9%	highest since March 2016
Tula	179,604	4.6%	-21%	57.0%	
Salamanca	135,967	16%	-1.0%	61.8%	highest in 12 months
Minatitlan	141,665	-0.6%	19%	49.7%	
Salina Cruz	209,905	54%	33%	63.6%	4-month high
Dos Bocas	not available				
Total	954,085	16%	14%	58.6%	highest since May 2017

To contact the reporter on this story:
Lucia Kassai in Houston at lkassai@bloomberg.net
To contact the editors responsible for this story:
Catherine Traywick at ctraywick@bloomberg.net
Simar Khanna

To view this story in Bloomberg click here:https://blinks.bloomberg.com/news/stories/S9MNQ8T0G1KW

1 · 7 · 2.1K

Dan Tsubouchi @Energy_Tidbits · Mar 1

Sustainable Aviation Fuel is very, very expensive!.

Similar to @qatarairways CEO 06/19/23, Exxon CEO Woods "*We could, today, make sustainable aviation fuel for the airline business, but the airline companies can't afford to pay.*"

#OOTT Thx @thier_jane
fortune.com/2024/02/27/exx...

> **Dan Tsubouchi** @Energy_Tidbits · Jun 19, 2023
>
> Blunt reality check comments on Sustainable Aviation Fuel from @qatarairways CEO.
>
> Being pushed to get SAF into airplanes, SAF is "exorbitantly expensive & unavailable"...
> Show more

SAF Group created transcript of Qatar Airways CEO Akbar Al Baker comments with Bloomberg's Guy Johnson on June 19, 2023. https://www.bloomberg.com/news/videos/2023-06-19/qatar-airways-ceo-at-paris-airshow-video

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

At 3:15 min mark, after talking about supply chain issues impacting aircraft and engine supply at a time where back to 2019 levels and high fares is all because of supply and demand, Al Baker "*I think fares are going to stay high. Also keep in mind that the oil prices are high. We are now being pushed to get SAF* [Sustainable Aviation Fuel] *into our airplanes. Again, which is exorbitantly expensive and unavailable So all this is a factor that is increasing the cost of the value that you have to pay to travel.*" Johnson "*So the move to SAF is going to be inflationary so you think?*" Al Baker "*Absolutely. If you are paying four times the price of Avgas to have SAF, what do you expect?*" Johnson "*And do you think the 2050 targets are looking achievable at this point?*" Al Baker "*No. I don't think so. Please explain to me one SAF manufacturer undertaking that they will be able to fill in the demand of 2050. I don't think so. Let us not fool ourself. First let us see from them, from Shell, ExxonMobil, TotalEnergies, all these people, ask them what is the volume they will [xxx?] produce? And they will never give you an answer.*"

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

2 · 6 · 2.6K

Dan Tsubouchi @Energy_Tidbits · Mar 1

Reality check on Direct Air Capture!

Exxon CEO Woods "*We just built a pilot plant prototype that we're working on to try and cut the cost in half—which by the way, will still be too expensive,*" reports @thier_jane

#OOTT

From fortune.com

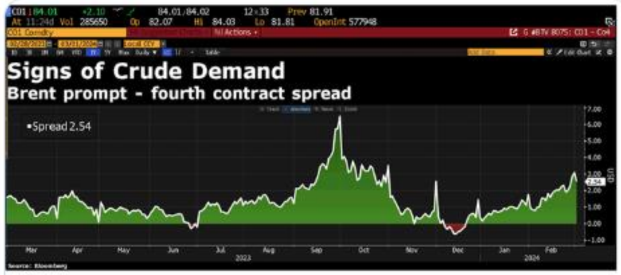
1 · 1 · 9 · 1.9K

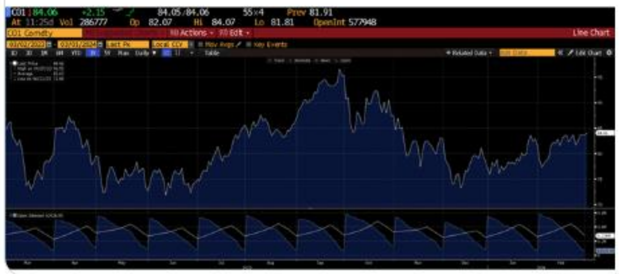
Dan Tsubouchi @Energy_Tidbits · Mar 1

Brent +$0.62 since Wed close but still Brent backwardation.

updated brent spread and price graph as of 9:24am MT vs Wed night.

#OOTT





> **Dan Tsubouchi** @Energy_Tidbits · Feb 28
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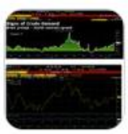
> 
>
> Brent backwardation
>
> Chart on a few minutes ago on @business China Open. @YvonneManTV
> ...

1 · 3 · 8 · 3.4K

SAF

Dan Tsubouchi @Energy_Tidbits · Mar 1 ···

Data centers/AI growth = massive need for 24/7, not intermittent, power

$D highlights 74% of electricity growth is commercial driven by data centers/AI.

Can do so only because of its #Nuclear #NatGas #Coal

Green energy was 14% of 2022 capacity but only 5% of actual.

#OOTT

SAF **Dan Tsubouchi** @Energy_Tidbits · Feb 6

Data centers/AI growth = massive need for power.

Data centers don't run less when the sun goes down or the wind isn't blowing.

...

5 15 5.1K

SAF

Dan Tsubouchi @Energy_Tidbits · Mar 1 ···

Looks like Trans Mountain 590,000 b/d TMX expansion is on track to start in June.

@business headlines out of MEG Q4 call right now.

"*Trans Mountain seeks 2.1M bbl in April, 2.1M bbl in May: MEG*". So calling for line-fill of 70,000 b/d in Apr & May.

#OOTT

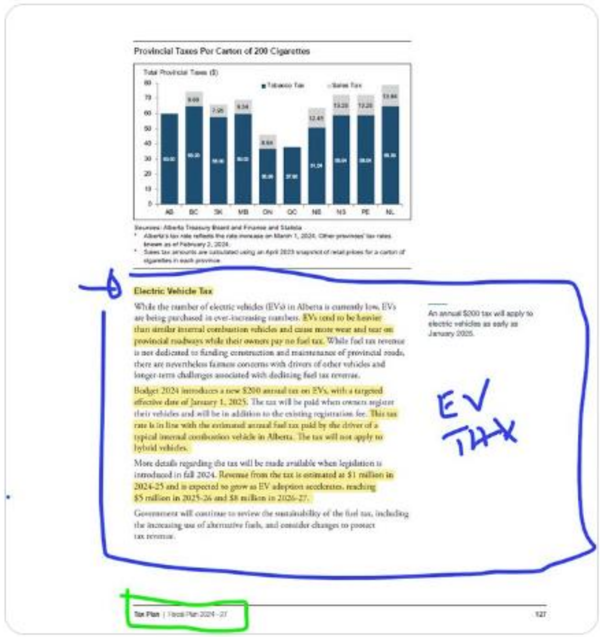
8 18 68 8.5K

Dan Tsubouchi @Energy_Tidbits · Feb 29

Alberta introduces #EV tax so EVs pay their fair share towards roads maintenance.

This will be an issue that all provinces/states will have to deal with sooner or later - how do they roll in EVs to pay a fair share to fund maintenance of an aging road system.

#OOTT



Provincial Taxes Per Carton of 200 Cigarettes

Sources: Alberta Treasury Board and Finance and Statista

* Alberta's tax rate reflects the rate increase on March 1, 2024. Other provinces' tax rates known as of February 2, 2024.
* Sales tax amounts are calculated using an April 2023 snapshot of retail prices for a carton of cigarettes in each province.

Electric Vehicle Tax

While the number of electric vehicles (EVs) in Alberta is currently low, EVs are being purchased in ever-increasing numbers. EVs tend to be heavier than similar internal combustion vehicles and cause more wear and tear on provincial roadways while their owners pay no fuel tax. While fuel tax revenue is not dedicated to funding construction and maintenance of provincial roads, there are nevertheless fairness concerns with drivers of other vehicles and longer-term challenges associated with declining fuel tax revenue.

Budget 2024 introduces a new $200 annual tax on EVs, with a targeted effective date of January 1, 2025. The tax will be paid when owners register their vehicles and will be in addition to the existing registration fee. This tax rate is in line with the estimated annual fuel tax paid by the driver of a typical internal combustion vehicle in Alberta. The tax will not apply to hybrid vehicles.

More details regarding the tax will be made available when legislation is introduced in fall 2024. Revenue from the tax is estimated at $1 million in 2024-25 and is expected to grow as EV adoption accelerates, reaching $5 million in 2025-26 and $8 million in 2026-27.

Government will continue to review the sustainability of the fuel tax, including the increasing use of alternative fuels, and consider changes to protect tax revenue.

An annual $200 tax will apply to electric vehicles as early as January 2025.

EV TAX

Tax Plan | Fiscal Plan 2024 - 27 127

3 10 44 3.8K

Dan Tsubouchi @Energy_Tidbits · Feb 29

Another positive for Cdn WCS oil in 2024 is ramping up.

Increased #Oil refined in MEX Pemex refineries = less heavy/medium oil for export

Existing refineries processed +130,000 b/d MoM in Jan

This excludes the ramping up of new Olmeca 340,000 b/d refinery.

Thx @lkassai ...
Show more

Pemex Refineries Process Most Crude in More Than 6 Years
2024-02-29 18:00:51.160 GMT

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13 26 4.9K

Dan Tsubouchi @Energy_Tidbits · Feb 29

Continued positive view from China smaller & export oriented firms.

China Caixin Manufacturing PMI Feb 50.9 (est 50.7) vs Jan 50.8, Dec 50.8, Nov 50.7, Oct 49.5.

4th straight month of growth

Thx @SPGlobalPMI #OOTT
#OOTT

1 2 1.2K

Dan Tsubouchi @Energy_Tidbits · 1h

Still no stopping continued monthly net redemptions from balanced & equity mutual funds in Canada.

Flipped from net sales to net redemptions in Q2/22 & hasn't stopped.

@ific net redemptions balanced/equity funds $5.7b in Jan 2024, which followed $82.5b in 2023 & $38.4b in 2022...
Show more

Figure xx: Cdn Mutual Fund Net Sales/Net Redemptions ($ Millions)

Mutual fund net sales/net redemptions ($ millions)*

Asset Class	Jan 2024	Dec 2023	Jan 2023
Long-term funds			
Balanced	(4,544)	(4,584)	(4,400)
Equity	(1,119)	(2,283)	(668)
Bond	3,730	817	3,462
Specialty	747	175	626
Total long-term funds	(1,186)	(5,875)	(981)
Total money market funds	487	790	1,057
Total	(699)	(5,086)	76

Source: IFIC

Figure xx: Cdn Mutual Fund Net Sales/Net Redemptions ($ Millions)

Mutual fund net sales/net redemptions ($ millions)*

Asset class	Dec 2023	Nov 2023	Dec 2022	2023	2022
Long-term funds					
Balanced	(4,612)	(6,510)	(4,935)	(56,866)	(29,959)
Equity	[illegible]	[illegible]	(3,069)	(25,568)	(8,461)
Bond	[illegible]	[illegible]	(2,187)	6,986	(13,811)
Specialty	176	391	102	3,538	1,306
Total long-term funds	(6,105)	(9,732)	(10,088)	(71,909)	(50,925)
Total money market funds	790	1,227	1,802	14,825	7,196
Total	(5,315)	(8,506)	(8,286)	(57,084)	(43,729)

Saved to this PC

Source: IFIC

1 580

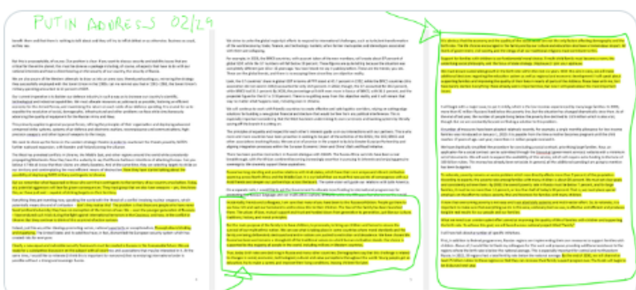
Dan Tsubouchi @Energy_Tidbits · 6h

Pre-Ukraine, Putin's greatest concern was Russia's shrinking population. See 12/28/21 tweet.

That hasn't changed.

Increasing birth rates & family sizes had a huge emphasis in Putin's speech today to Federal Assembly.

#OOTT



Dan Tsubouchi @Energy_Tidbits · Dec 28, 2021

ICYMI. Putin is asked "what is your greatest concern?", he replies "demographics is one of our main problems for our humanitarian and economic considerations" ie. Russia's shrinking population. A big factor why he needs stronger for longer #Oil #NatGas #Metals ...

1 1 1.8K

Dan Tsubouchi @Energy_Tidbits · 6h

Headline from Putin address to Federal Assembly.

"*The strategic nuclear forces are on full combat alert and the ability to use them is assured*" Putin.

Not as specific as Medvedev 👇 02/18 tweet, BUT another reminder RUS is prepared to use nukes.

#OOTT

Dan Tsubouchi @Energy_Tidbits · Feb 18

Scary stuff!

RUS says if try to force them back to old borders, *"can only lead to one thing. To a global war with Western countries with the use of the entire strategic arsenal ...*

1 3 4 1.5K

Dan Tsubouchi @Energy_Tidbits · 7h

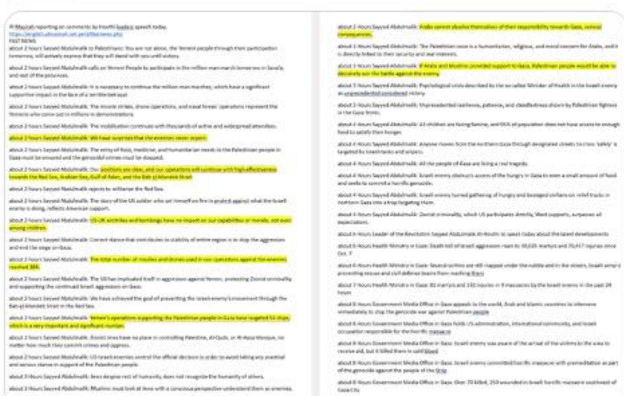
"***We have surprises that the enemies never expect***"

"*US-UK airstrikes and bombings have no impact on our capabilities or morale, not even among children*" says Houthis leader.

Reminds no sign the Houthis are going to give up anytime soon.

No full transcript yet.

#OOTT



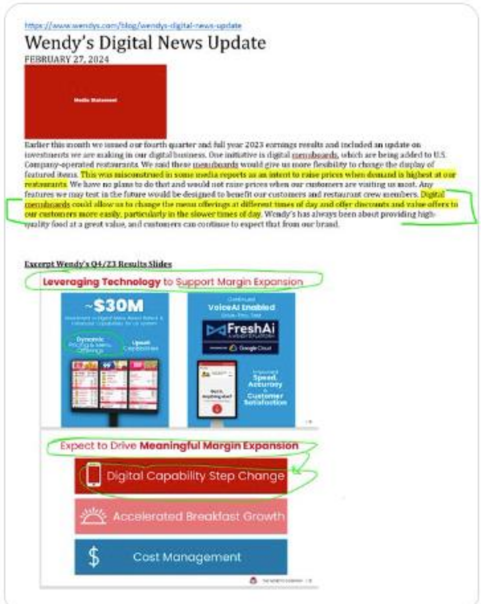
1 3 959

Dan Tsubouchi @Energy_Tidbits · 13h

Hmmm!

Wendy's says digital menuboards are NOT to surge price. Rather *"**could** allow us to change the menu offerings at different times of day and **offer discounts** and value offers"*.

But 👇 digital menuboards to support margin expansion! discounting burgers = higher margins??



https://www.wendys.com/blog/wendys-digital-news-update

Wendy's Digital News Update

FEBRUARY 27, 2024

Earlier this month we issued our fourth quarter and full year 2023 earnings results and included an update on investments we are making in our digital business. One initiative is digital menuboards, which are being added to U.S. Company-operated restaurants. We said these menuboards would give us more flexibility to change the display of featured items. This was misconstrued in some media reports as an intent to raise prices when demand is highest at our restaurants. We have no plans to do that and would not raise prices when our customers are visiting us most. Any features we may test in the future would be designed to benefit our customers and restaurant crew members. Digital menuboards could allow us to change the menu offerings at different times of day and offer discounts and value offers to our customers more easily, particularly in the slower times of day. Wendy's has always been about providing high-quality food at a great value, and customers can continue to expect that from our brand.

Excerpt Wendy's Q4/23 Results Slides

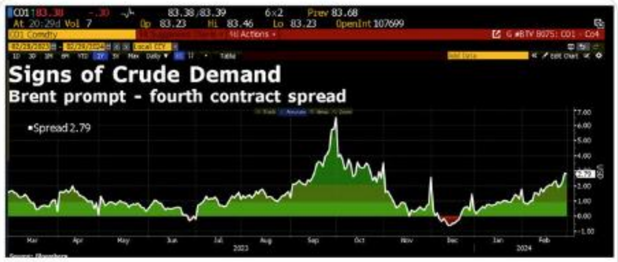
1 · 1 · 1K

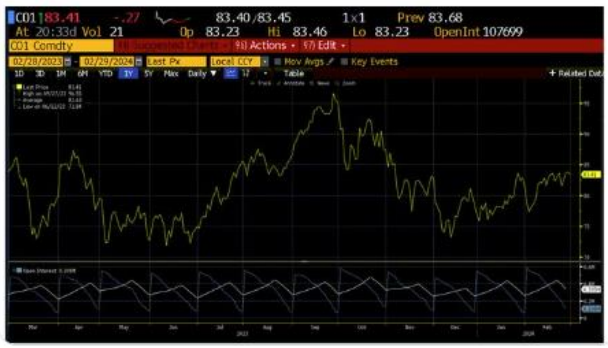
Dan Tsubouchi @Energy_Tidbits · 23h

Brent backwardation

Chart on a few minutes ago on @business China Open. @YvonneManTV

#OOTT





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Dan Tsubouchi @Energy_Tidbits · Feb 28

Toyota will love it - Prius is #1 in @ACEEEdc 2024 GreenerCar Rankings

Full cycle score "*cost to human health from air pollution associated with vehicle manufacturing & disposal, the production & distribution of fuel or electricity, & vehicle tailpipe emissions*".

#OOTT #EV...

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Dan Tsubouchi @Energy_Tidbits · Feb 28

For those not near their laptops, @EIAgov just released at 8:30am MT its #Oil #Gasoline #Distillates inventory as of Feb 23. Table below compares EIA data vs @business expectations and vs @APIenergy yesterday. Prior to release, WTI was $79.30. #OOTT

Oil/Products Inventory Feb 23: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	4.20	3.72	8.40
Gasoline	-2.83	-2.84	-3.30
Distillates	-0.51	-2.00	-0.50
	0.86	-1.12	4.60

Note: Oil is commercial so builds in +0.8 mmb in SPR for the Feb 23 week

Note: Included in the oil data, Cushing had a 1.46 mmb build for Feb 23 week

Source EIA, Bloomberg

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

1 1K

SAF

Dan Tsubouchi @Energy_Tidbits · Feb 28

One for #Oil bulls

"*now you're starting to see [Oil] demand revisions upwards*"

financial markets "*still looking at this saying do we really buy into this demand story that at least the physical market is telling us*"

"*if you're saying demand growth is now, instead of the 1.1...*
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"But now you're starting to see [Oil] demand revisions upwards, and people saying, you're hearing the phrase upside risk a lot more than you have in the past couple years". "a lot of that is financial markets, financial players, macro players still looking at this saying do we really buy into this demand story, that at least the physical market is telling us." **Trafigura Chief Economist Rahim.**

SAF Group created transcript of comments by Trafigura Chief Economist Saad Rahim with Bloomberg's Anna Edwards, Guy Johnson, and Kriti Gupta on Bloomberg Markets Today Feb 28, 2024. [LINK]

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

At 0:15 min mark, Rahim "*I think the fact that rates are closer to 5% than they are to 3% sort of tells you everything you need to know about this market right now is that people are upgrading their growth forecasts. And in particular in demand, that's really been the key theme from the first few days of this week here, at IEE week this year, is that people came into this year expecting a balanced market. 1.1 mmb/d demand growth, about half of what we got last year, and about 1.1 mmb/d of non-OPEC supply. So that sort of suggested that OPEC would need to keep the cuts in place for a long time. But now you're starting to see demand revisions upwards, and people saying, you're hearing the phrase upside risk a lot more than you have in the past couple years. And again even for last year, I think the key story was always demand fears, growth fears, growth angst. And one of the best indicators where oil prices were going was the 2/10 spread, because that was people's proxy for recession risk. As we start to move away from that, as you say the US economy looks like its still very much on fire despite 525 basis points of hikes, you know, we're looking at a very different picture I think for the rest of the year.*"

At 1:45 min mark, Rahim "*but I think really we're saying if we look at that, that's telling you this market does feel relatively tight. And you can look at a number of other physical market indicators – strength in Asia, strength in the US, but even to me strength in Europe as well. So the fact that what we call flat price of Brent really hasn't moved to the higher, or WTI hasn't really moved thru $80. I think that a lot of that is financial markets, financial players, macro players still looking at this saying do we really buy into this demand story, that at least the physical market is telling us.*"

Will Saudi and others be allowed to pump more barrels on the market, at 7:55 min mark, Rahim "*I think if it's coming from a demand side response, I think then potentially they could start to discuss that. June, which is their next meeting, the next time they would adjust relly production, I think maybe that's a little bit early for them to do that. But you know if you're saying demand growth is now, instead of the 1.1 that people were expecting, maybe it is 1.7, 1.8. If it's something like that, if it's like that and that's why prices have moved higher. Rather than just a supply side response, which may be temporary, you don't want to bring barrels back in too early if it's just a supply side issue. Right. But if it's a demand and it looks like it's actually holding up and its structural, then you can start to think about adding some of those barrels back.*"

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

2 24 70 10K

Dan Tsubouchi @Energy_Tidbits · Feb 27

More to support why Biden will back off EV targets as reported 02/17 by 👇 @CoralMDavenport.

@APIenergy @Ipsos poll: not a banning new ICE vehicles is not a winning issue. A toss up among Dems, more opposed by Independents.

ICE vehicles will be needed for longer!
#OOTT...
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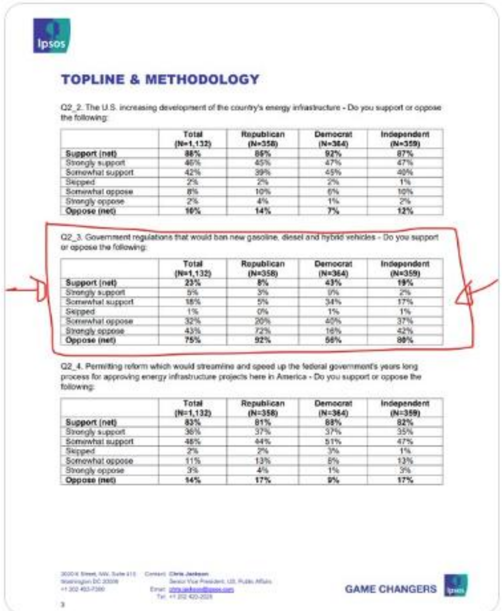


TOPLINE & METHODOLOGY

Q2_2. The U.S. increasing development of the country's energy infrastructure - Do you support or oppose the following:

	Total (N=1,132)	Republican (N=358)	Democrat (N=364)	Independent (N=359)
Support (net)	**88%**	**86%**	**92%**	**87%**
Strongly support	46%	45%	47%	47%
Somewhat support	42%	39%	45%	40%
Skipped	2%	2%	2%	1%
Somewhat oppose	8%	10%	6%	10%
Strongly oppose	2%	4%	1%	2%
Oppose (net)	**10%**	**14%**	**7%**	**12%**

Q2_3. Government regulations that would ban new gasoline, diesel and hybrid vehicles - Do you support or oppose the following:

	Total (N=1,132)	Republican (N=358)	Democrat (N=364)	Independent (N=359)
Support (net)	**23%**	**8%**	**43%**	**19%**
Strongly support	5%	3%	9%	2%
Somewhat support	18%	5%	34%	17%
Skipped	1%	0%	1%	1%
Somewhat oppose	32%	20%	40%	37%
Strongly oppose	43%	72%	16%	42%
Oppose (net)	**75%**	**92%**	**56%**	**80%**

Q2_4. Permitting reform which would streamline and speed up the federal government's years long process for approving energy infrastructure projects here in America - Do you support or oppose the following:

	Total (N=1,132)	Republican (N=358)	Democrat (N=364)	Independent (N=359)
Support (net)	**83%**	**81%**	**88%**	**82%**
Strongly support	36%	37%	37%	35%
Somewhat support	48%	44%	51%	47%
Skipped	2%	2%	3%	1%
Somewhat oppose	11%	13%	8%	13%
Strongly oppose	3%	4%	1%	3%
Oppose (net)	**14%**	**17%**	**9%**	**17%**

Contact: Chris Jackson
Senior Vice President, US, Public Affairs

GAME CHANGERS

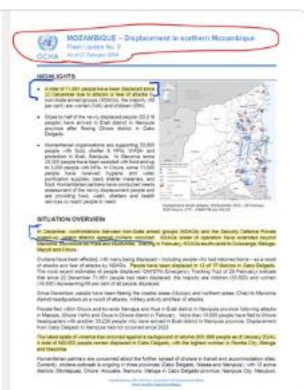
3

1 · 5 · 1.8K

Dan Tsubouchi @Energy_Tidbits · Feb 27

Risk to further delay at $TTE Mozambique LNG restart?

Still ~60 km south of TTE's Palma, but 👇 @UNOCHA 02/27, "*confrontations between non-State armed groups (NSAGs) & the Security Defence Forces scaled-up, violent attacks against civilians occurred*", 72k people displaced
#OOTT



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Dan Tsubouchi @Energy_Tidbits · Feb 27

Another reason why EVs ambitions will take longer.

@markgurman reports Apple cancels the AppleCar project.

Forget the sunk $billions spent to date, it means a technology leader won't be investing $ billions to lead/drive EVs advancements.

#Oil will be needed for longer.
#OOTT

> **Mark Gurman** @markgurman · Feb 27
>
> BREAKING NEWS: Apple cancels the Apple Car project after a decade-long, multi-billion effort to rival Tesla. Some employees shifting to Generative AI teams. bloomberg.com/news/articles/...

3 | 6 | 15 | 5.5K

Dan Tsubouchi @Energy_Tidbits · Feb 27

ICYMI

#BlackRock "*portfolio approach of static asset allocations won't work as well as in recent decades*"

"*active strategies will play a greater role* "

BUT need top managers as "active returns between the top and bottom 25% of managers is near its widest since 2011"

...

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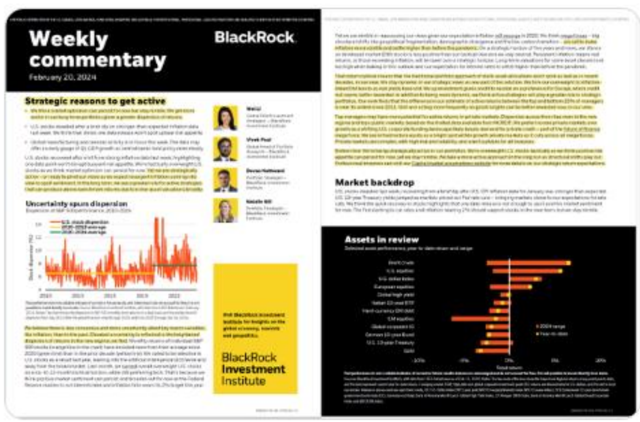

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Dan Tsubouchi @Energy_Tidbits · Feb 27

Don't think it's unreasonable given all recent issues with Offshore Wind, Solar, etc

But worth noting Woodside's "*Global #LNG demand forecast to grow 53% to 2033, driven by Europe, China and emerging Asia*" is "Base case scenario. Wood Mackenzie Global Gas Investment Horizon...

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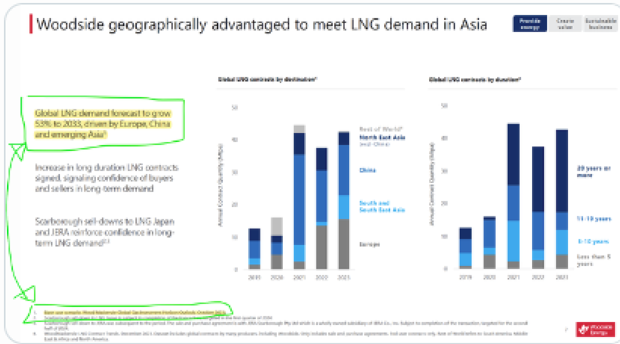

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Dan Tsubouchi @Energy_Tidbits · Feb 26

Record low JKM #LNG futures will keep pressure on US HH #NatGas prices.

Prior to Feb, JKM low was $9, approaching $8 vs >$14 yr ago.

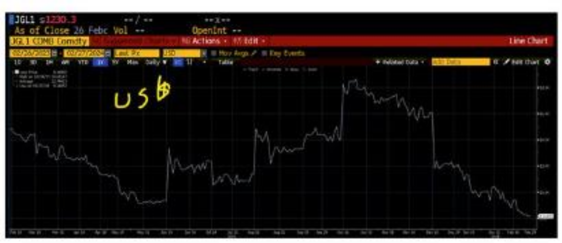
Reminds a hot winter will keep pressuring LNG #NasGas prices at least thru shoulder season.

Thx @SStapczynski daily LNG Wrap.

#OOTT

Futures Prices:

- Japan-Korea Marker futures for April delivery fell 0.4% to $8.125/mmbtu on Friday
  - May contract -0.2% to $8.050



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Dan Tsubouchi @Energy_Tidbits · Feb 26

Stocks 101

Increasing foreign buying of Korea stocks = KOSPI share prices up

US$b net flows by foreigners
MTD Feb $5.4, Jan $2.3, Dec $3.6, Nov $3.3

#KOSPI +16.2% since Oct 31/23

3 922

Dan Tsubouchi @Energy_Tidbits · Feb 26

Protest over after 1 day.

Wafa #Oil field and subsea #NatGas pipeline resumed.

@business Hatem Mohareb reports "protesters withdrew from the facilities following assurances from the govt that their demands would be met".

#OOTT

> Dan Tsubouchi @Energy_Tidbits · Feb 25
>
> LIbya protest #Oil #NatGas impact update.
>
> @business Hatem Mohareb reports exports from Wafa field 40-45,000 b/d oil and subsea pipeline carriying 0.2 bcf/d to Italy were closed following protests....
>
> Show more

1 4 2.3K

Dan Tsubouchi @Energy_Tidbits · Feb 25

Visitors to Macau still 17% below pre-Covid.

Up big YoY as China only relaxed Covid restrictions at the end of 2022.

Total Jan 2024 at 2.862 mm is 83% of pre-Covid Jan 2019 of 3.425 mm.

Mainland China Jan 2024 at 2.056 mm is 82% of Pre-Covid Jan 2019.

#OOTT

Macau Statistics and Census Service https://www.dsec.gov.mo/ts/#!/step2/KeyIndicator/en-US/243

Arrivals for January 2024

Information from the Statistics and Census Service (DSEC) indicated that visitor arrivals soared by 104.7% year-on-year to 2,861,609 in January 2024, recovering to 83.5% of the level in the same month of 2019; however, the figure represented a drop of 2.8% month-on-month. Same-day visitors (1,480,098) and overnight visitors (1,381,511) leapt by 154.5% and 69.3% year-on-year respectively. Meanwhile, the average length of stay of visitors shortened by 0.4 day year-on-year to 1.2 days, with that of overnight visitors (2.2 days) and same-day visitors (0.2 day) decreasing by 0.4 day and 0.1 day respectively.

As regards source of visitors, visitors from mainland China jumped by 107.3% year-on-year to 2,056,133 in January, with those travelling under the Individual Visit Scheme (1,116,184) rising by 57.8%. Visitors from the nine Pearl River Delta cities in the Greater Bay Area hiked by 68.6% year-on-year to 1,025,451. Besides, visitors from Hong Kong (546,277) and Taiwan (59,921) grew by 53.0% and 217.6% year-on-year respectively. The numbers of visitors from Mainland, Hong Kong and Taiwan in January 2024 rebounded to 82.1%, 102.3% and 69.0% of the corresponding levels in the same month of 2019.

International visitors totalled 199,278 in January 2024, back to 66.4% of the figure in the same month of 2019. Regarding the Southeast Asian markets, number of visitors from the Philippines (34,102) exceeded the level in January 2019, rising by 24.3%. Numbers of visitors from Indonesia (13,961), Thailand (13,608) and Malaysia (10,997) returned to 86.9%, 93.1% and 66.2% of the corresponding levels in January 2019. With respect to the Northeast Asian markets, numbers of visitors from the Republic of Korea (50,552) and Japan (10,646) recovered to 50.8% and 34.8% of the respective levels in the same month of 2019. As regards long-haul markets, visitors from the USA (10,922) rebounded to 66.2% of the level in January 2019.

Analysed by checkpoint, number of visitor arrivals by land hiked by 96.5% year-on-year to 2,265,185 in January 2024; among them, 49.2% arrived through the checkpoint of Border Gate (1,115,094), 29.6% came via the Hong Kong-Zhuhai-Macao Bridge (670,776) and 14.9% via the Hengqin port (337,760). Meanwhile, visitor arrivals by sea (352,564) and by air (243,860) showed respective growth of 135.6% and 156.3% year-on-year.

2024/02/23

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Dan Tsubouchi @Energy_Tidbits · Feb 25

LIbya protest #Oil #NatGas impact update.

@business Hatem Mohareb reports exports from Wafa field 40-45,000 b/d oil and subsea pipeline carrying 0.2 bcf/d to Italy were closed following protests.

#OOTT

From bloomberg.com

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