Energy Tidbits

Vortexa Floating Oil Storage is Lowest Since Covid at 56.75 mmb: Positive if Revisions Keep it in 60's & 60's are Maintained.

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Table 1. Summary of natural gas supply and disposition in the United States, 2019-2024

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]
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 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	E3,820	E3,429	R272	RE3,157	7	-333	456	R17	3,304
February	E3,456	E3,103	R249	RE2,854	6	-331	399	R20	2,948
March	E3,858	E3,475	286	E3,189	6	-401	224	R-4	3,014
April	E3,729	E3,362	R281	RE3,081	5	-400	-269	R3	2,421
May	E3,869	E3,500	R290	E3,210	6	-422	-452	-27	2,315
June	E3,720	E3,375	278	RE3,097	4	-376	-344	-19	2,363
July	E3,827	E3,495	R292	RE3,203	6	-378	-134	R-31	2,666
August	E3,850	E3,534	R295	RE3,239	5	-388	-133	R-50	2,673
September	E3,761	E3,426	R293	RE3,133	3	-396	-323	R-44	2,373
October	E3,909	E3,537	R303	RE3,233	3	-421	-321	R-56	2,438
November	E3,841	E3,469	R293	RE3,176	5	-403	65	-21	2,822
December	E3,994	E3,592	R296	RE3,297	6	-432	284	R14	3,169
Total	**E45,633**	**E41,296**	**R3,427**	**RE37,869**	**63**	**-4,681**	**-548**	**R-197**	**32,506**
2024									
January	E3,872	E3,480	269	RE3,210	6	-350	844	-14	3,695
February	E3,723	E3,349	276	E3,073	5	-385	R263	12	2,968
March	RE3,880	RE3,487	R304	RE3,183	6	-424	48	R-20	2,793
April	RE3,710	RE3,347	301	RE3,046	6	-345	-258	R-54	2,395
May	E3,827	E3,455	314	E3,142	6	-408	-363	-49	2,328
2024 5-month YTD	**E19,012**	**E17,118**	**1,464**	**E15,654**	**29**	**-1,911**	**533**	**-125**	**14,179**
2023 5-month YTD	**E18,732**	**E16,868**	**1,377**	**E15,491**	**30**	**-1,888**	**358**	**10**	**14,001**
2022 5-month YTD	**17,821**	**15,963**	**1,245**	**14,718**	**30**	**-1,711**	**1,224**	**-227**	**14,035**

[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 2019 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; and -8 for 2019. 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: 2019-2022: 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 2019 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, 2022-2024

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

	2024 5-month YTD	2023 5-month YTD	2022 5-month YTD	May	April	March	2024 February
Exports							
Volume (million cubic feet)							
Pipeline							
Canada	463,455	460,950	420,970	67,063	73,117	116,204	114,539
Mexico	938,123	859,291	862,834	211,478	R190,281	181,856	R169,433
Total pipeline exports	**1,401,578**	**1,320,240**	**1,283,804**	**278,541**	**R263,398**	**298,060**	**R283,972**
LNG							
Exports							
By vessel							
Antigua and Barbuda	17	12	8	0	5	3	7
Argentina	26,144	43,096	30,044	17,470	8,674	0	0
Bahamas	202	209	185	52	39	35	34
Bangladesh	6,569	6,931	12,663	0	3,289	3,281	0
Barbados	121	0	92	17	16	29	37
Belgium	33,786	27,669	50,004	0	3,247	6,899	9,386
Brazil	21,778	9,128	48,968	5,941	1,364	0	6,180
Chile	26,427	16,997	19,849	7,330	5,441	6,439	3,522
China	73,941	35,613	21,101	22,284	10,025	17,376	16,312
Colombia	22,420	2,847	486	436	1,444	7,974	6,101
Croatia	26,613	18,709	33,617	3,570	0	10,202	3,377
Dominican Republic	37,538	22,805	21,786	5,946	R12,446	4,552	7,106
El Salvador	0	0	0	0	0	0	0
Finland	6,536	13,397	0	3,321	3,215	0	0
France	195,452	206,728	257,639	19,797	37,672	60,572	49,363
Germany	98,802	81,932	0	26,177	21,479	17,060	16,715
Greece	18,712	21,547	27,999	5,182	0	3,240	3,136
Haiti	36	50	66	10	3	0	6
India	104,169	52,976	45,888	45,269	20,843	13,842	13,530
Indonesia	432	805	717	432	0	0	0
Italy	71,333	74,401	64,969	10,814	14,040	10,256	11,455
Jamaica	7,173	1,128	568	0	3	3	590
Japan	138,051	96,752	86,694	44,734	22,227	28,923	22,827
Jordan	10,805	0	0	3,676	3,652	3,477	0
Kuwait	17,598	7,509	26,779	7,216	0	7,207	3,175
Lithuania	11,898	20,772	37,355	0	0	3,641	7,174
Malta	0	2,592	2,345	0	0	0	0
Mexico	3,277	6,270	0	3,190	0	0	87
Netherlands	229,723	261,544	130,088	37,694	47,486	57,169	45,501
Pakistan	0	0	3,074	0	0	0	0
Panama	10,390	9,215	9,053	0	R3,265	3,448	0
Philippines	0	0	0	0	0	0	0
Poland	38,073	53,708	47,107	14,363	3,576	3,685	10,702
Portugal	32,526	33,748	27,818	4,238	6,469	2,932	9,384
Singapore	27,545	0	6,725	6,851	3,617	7,031	6,851
South Korea	103,714	93,678	99,954	28,401	17,457	21,023	16,193
Spain	92,849	110,166	228,557	8,399	10,127	21,849	13,660
Taiwan	53,683	40,374	50,003	10,256	13,347	10,374	13,151
Thailand	58,081	14,041	11,789	7,289	19,342	14,737	8,809
Turkiye	75,167	78,501	119,325	0	3,057	8,963	20,454
United Kingdom	104,696	306,310	192,544	7,100	6,887	13,663	34,117
By truck							
Canada	23	20	40	15	8	0	0
Mexico	74	418	685	13	14	12	14
Re-exports							
By vessel							
United Kingdom	607	0	0	0	0	0	607
Total LNG exports	**1,797,209**	**1,772,600**	**1,716,583**	**367,713**	**303,776**	**369,898**	**359,563**
CNG							
Canada	0	1	*	0	0	0	0
Total CNG exports	**0**	**1**	*	**0**	**0**	**0**	**0**
Total exports	**3,198,787**	**3,092,841**	**3,000,387**	**646,254**	**R567,174**	**667,958**	**R643,534**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2022-2024

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

	2024						2023
	January	Total	December	November	October	September	August
Exports							
Volume (million cubic feet)							
Pipeline							
Canada	92,532	1,026,097	111,869	89,446	66,936	76,619	68,390
Mexico	185,076	2,241,553	174,602	179,002	200,466	202,402	213,050
Total pipeline exports	**277,607**	**3,267,651**	**286,471**	**268,448**	**267,402**	**279,021**	**281,440**
LNG							
Exports							
By vessel							
Antigua and Barbuda	2	47	6	4	7	7	5
Argentina	0	76,921	0	0	0	0	0
Bahamas	42	499	32	34	34	51	47
Bangladesh	0	24,147	3,257	3,240	0	0	7,095
Barbados	22	11	11	0	0	0	0
Belgium	14,255	97,017	14,272	10,288	20,775	13,697	3,363
Brazil	8,292	38,595	3,708	3,563	3,720	6,561	3,287
Chile	3,696	31,217	0	0	0	0	3,065
China	7,944	173,247	13,949	25,601	18,013	10,222	14,252
Colombia	6,465	32,014	7,162	1,844	6,689	10,322	3,149
Croatia	9,464	55,439	3,050	9,995	0	10,542	3,023
Dominican Republic	7,489	73,761	3,177	8,647	8,826	6,734	10,055
El Salvador	0	1	0	0	0	0	0
Finland	0	38,469	2,762	3,335	0	7,057	6,630
France	28,049	492,906	40,692	58,907	54,072	32,016	34,332
Germany	17,371	204,605	19,439	14,382	17,901	17,228	20,709
Greece	7,153	39,426	8,287	0	0	1,968	4,700
Haiti	16	113	13	8	8	10	9
India	10,685	164,325	17,062	7,441	13,698	24,452	13,713
Indonesia	0	3,157	0	0	0	489	766
Italy	24,767	197,816	21,283	23,786	6,850	22,094	21,519
Jamaica	6,576	9,048	480	122	1,831	4,038	3
Japan	19,340	310,190	27,461	24,896	24,357	33,375	31,302
Jordan	0	3,282	0	0	0	0	0
Kuwait	0	35,185	0	0	0	6,636	3,289
Lithuania	1,083	55,332	3,409	0	6,476	10,666	7,005
Malta	0	2,592	0	0	0	0	0
Mexico	0	13,661	3,660	0	1,776	0	0
Netherlands	41,873	588,557	48,658	36,150	49,701	39,745	53,596
Pakistan	0	3,141	3,141	0	0	0	0
Panama	3,677	19,565	328	3,530	0	3,196	0
Philippines	0	6,823	0	3,445	3,378	0	0
Poland	5,746	139,635	10,862	14,500	14,213	14,121	10,550
Portugal	9,503	72,856	2,945	3,204	7,125	6,135	6,660
Singapore	3,194	23,320	0	0	3,279	6,649	3,384
South Korea	20,640	275,779	35,187	26,140	28,224	24,112	34,932
Spain	38,812	269,504	15,629	17,280	49,792	10,234	20,023
Taiwan	6,555	104,075	6,655	3,104	6,686	13,201	14,117
Thailand	7,904	59,477	3,818	7,581	7,538	0	14,793
Turkiye	42,693	156,403	42,304	27,560	4,507	3,531	0
United Kingdom	42,928	450,181	60,209	47,642	24,900	7,464	3,655
By truck							
Canada	0	85	7	7	0	16	8
Mexico	21	604	20	26	27	35	19
Re-exports							
By vessel							
United Kingdom	0	0	0	0	0	0	0
Total LNG exports	**396,260**	**4,343,027**	**422,935**	**386,262**	**384,403**	**346,604**	**353,059**
CNG							
Canada	0	1	0	0	0	0	0
Total CNG exports	**0**	**1**	**0**	**0**	**0**	**0**	**0**
Total exports	**673,868**	**7,610,678**	**709,406**	**654,710**	**651,805**	**625,625**	**634,499**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2022-2024

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

	2023						
	July	June	May	April	March	February	January
Exports							
Volume (million cubic feet)							
Pipeline							
Canada	76,567	75,320	77,984	75,674	106,178	95,691	105,422
Mexico	208,625	204,115	193,623	169,179	177,653	152,807	166,028
Total pipeline exports	**285,193**	**279,435**	**271,608**	**244,853**	**283,832**	**248,498**	**271,450**
LNG							
Exports							
By vessel							
Antigua and Barbuda	4	3	3	3	2	2	4
Argentina	11,162	22,663	26,930	11,536	2,343	2,287	0
Bahamas	47	45	45	43	53	27	42
Bangladesh	0	3,624	3,561	0	0	0	3,369
Barbados	0	0	0	0	0	0	0
Belgium	0	6,953	3,809	4,844	8,053	7,322	3,640
Brazil	0	8,628	4,196	3,598	1,334	0	0
Chile	7,144	4,011	6,419	0	7,271	0	3,307
China	35,337	20,261	6,593	3,426	5,132	2,565	17,896
Colombia	0	0	2,847	0	0	0	0
Croatia	10,121	0	2,932	3,163	3,694	6,006	2,913
Dominican Republic	6,076	7,443	7,871	6,901	876	3,514	3,643
El Salvador	1	0	0	0	0	0	0
Finland	3,666	1,622	6,935	0	6,462	0	0
France	20,589	45,569	51,355	53,211	28,581	39,457	34,124
Germany	17,245	15,769	16,002	18,546	24,841	8,229	14,314
Greece	0	2,924	4,498	3,905	3,156	6,781	3,207
Haiti	8	6	12	11	8	11	8
India	20,494	14,488	7,140	14,585	10,230	14,064	6,956
Indonesia	1,097	0	0	0	0	0	805
Italy	13,923	13,959	18,845	17,378	13,699	17,555	6,925
Jamaica	1,443	3	289	31	540	161	107
Japan	44,016	28,031	31,208	13,687	20,102	14,058	17,696
Jordan	3,282	0	0	0	0	0	0
Kuwait	7,081	10,670	3,802	3,707	0	0	0
Lithuania	3,375	3,629	7,048	3,412	3,599	0	6,713
Malta	0	0	0	0	0	0	2,592
Mexico	1,954	0	0	0	3,051	0	3,219
Netherlands	53,296	45,866	64,538	60,234	61,017	39,301	36,453
Pakistan	0	0	0	0	0	0	0
Panama	3,295	0	3,289	0	3,209	0	2,718
Philippines	0	0	0	0	0	0	0
Poland	3,635	18,046	17,422	7,165	7,236	10,347	11,538
Portugal	9,845	3,194	10,424	4,237	6,133	6,138	6,816
Singapore	0	10,009	0	0	0	0	0
South Korea	16,462	17,044	10,958	24,734	10,807	22,672	24,507
Spain	34,106	12,274	12,266	13,680	38,096	32,138	13,987
Taiwan	13,090	6,848	10,262	9,774	10,311	6,557	3,471
Thailand	7,463	4,242	0	4,225	4,249	1,829	3,738
Turkiye	0	0	0	13,908	11,866	13,444	39,283
United Kingdom	0	0	25,242	75,836	70,499	71,702	63,032
By truck							
Canada	8	17	7	7	7	0	0
Mexico	25	34	26	58	96	106	133
Re-exports							
By vessel							
United Kingdom	0	0	0	0	0	0	0
Total LNG exports	**349,292**	**327,872**	**366,774**	**375,843**	**366,552**	**326,275**	**337,155**
CNG							
Canada	0	0	0	0	*	*	*
Total CNG exports	**0**	**0**	**0**	**0**	*	*	*
Total exports	**634,485**	**607,307**	**638,382**	**620,697**	**650,384**	**574,773**	**608,605**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2022-2024

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

	2022						
	Total	December	November	October	September	August	July
Exports							
Volume (million cubic feet)							
Pipeline							
Canada	959,630	98,718	90,179	72,738	61,926	75,220	69,774
Mexico	2,078,627	158,638	160,986	171,766	169,159	182,596	189,652
Total pipeline exports	**3,038,257**	**257,355**	**251,165**	**244,505**	**231,086**	**257,816**	**259,426**
LNG							
Exports							
By vessel							
Antigua and Barbuda	22	1	2	2	3	2	2
Argentina	66,939	0	0	0	0	2,202	9,448
Bahamas	489	42	35	40	43	53	45
Bangladesh	12,663	0	0	0	0	0	0
Barbados	93	0	1	0	0	0	0
Belgium	80,245	3,274	0	7,190	9,165	3,589	0
Brazil	71,998	0	0	3,439	0	10,542	5,192
Chile	30,131	0	0	0	3,365	0	6,917
China	96,659	6,992	17,308	22,598	10,275	10,272	784
Colombia	5,703	0	0	3,699	0	606	0
Croatia	77,286	6,204	5,122	2,922	9,073	7,824	4,600
Dominican Republic	50,824	6,644	0	3,469	3,196	3,357	6,532
El Salvador	0	0	0	0	0	0	0
Finland	329	329	0	0	0	0	0
France	571,399	38,311	50,655	41,959	57,943	33,885	53,443
Germany	7,113	7,112	1	0	0	0	0
Greece	69,031	2,869	421	4,424	0	10,763	12,922
Haiti	115	9	0	0	8	11	8
India	122,518	14,139	10,138	7,005	10,528	10,265	13,902
Indonesia	6,579	3,256	505	625	509	967	0
Italy	116,034	6,992	3,205	0	8,355	15,462	9,914
Jamaica	1,516	147	137	144	240	110	121
Japan	209,220	20,535	24,396	10,684	7,005	20,156	18,189
Jordan	0	0	0	0	0	0	0
Kuwait	57,018	0	0	3,299	7,038	6,415	5,382
Lithuania	77,212	3,281	3,708	7,072	3,541	7,579	7,947
Malta	5,273	0	2,928	0	0	0	0
Mexico	3,832	539	0	0	0	0	0
Netherlands	378,329	39,893	20,645	39,703	30,924	50,020	32,637
Pakistan	3,074	0	0	0	0	0	0
Panama	13,759	249	3,833	0	0	0	0
Philippines	0	0	0	0	0	0	0
Poland	127,404	13,885	3,453	7,095	16,917	6,885	17,780
Portugal	69,583	10,025	3,732	7,005	5,806	3,202	6,412
Singapore	22,980	0	0	6,628	0	0	6,275
South Korea	292,732	24,700	14,069	38,844	19,736	36,033	34,342
Spain	426,657	33,847	26,445	26,369	21,263	26,140	34,396
Taiwan	106,738	9,203	3,592	9,041	9,753	8,901	9,353
Thailand	25,988	0	0	0	3,673	3,607	0
Turkiye	192,067	17,979	31,430	10,333	5,458	0	0
United Kingdom	464,462	69,332	76,693	46,040	51,467	21,263	3,797
By truck							
Canada	76	8	0	19	0	0	0
Mexico	1,552	160	153	175	94	103	76
Re-exports							
By vessel							
United Kingdom	0	0	0	0	0	0	0
Total LNG exports	**3,865,643**	**339,960**	**302,608**	**309,823**	**295,379**	**300,215**	**300,415**
CNG							
Canada	2	0	*	1	*	*	1
Total CNG exports	**2**	**0**	*	**1**	*	*	**1**
Total exports	**6,903,902**	**597,316**	**553,774**	**554,328**	**526,465**	**558,031**	**559,842**

See footnotes at end of table.

Table 5. U.S. natural gas exports, 2022-2024

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

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

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2019-2024

million cubic feet

Year and month	Alaska	Arkansas	California	Colorado	Kansas	Louisiana	Montana	New Mexico	North Dakota	Ohio
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 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	E32,602	E10,908	E157,416	E11,305	E360,678	E3,579	E271,482	E100,209	E186,975
November	30,734	E31,377	E10,272	E154,244	E10,869	E343,826	E3,376	E270,985	E98,324	E185,717
December	33,356	E32,093	E10,619	E160,934	E10,952	E345,516	E3,621	E288,346	E103,484	E186,819
Total	**368,027**	**E393,193**	**E129,747**	**E1,824,228**	**E133,657**	**E4,305,988**	**E42,174**	**E3,164,408**	**E1,120,237**	**E2,263,473**
2024										
January	34,077	E29,234	E10,457	E155,450	E10,083	E339,634	E3,478	E275,658	E89,672	E179,681
February	31,472	E29,775	E9,726	E149,839	E10,092	E329,471	E3,371	E273,048	E94,200	E179,998
March	33,621	RE31,746	RE10,441	RE161,097	RE10,747	RE332,315	RE3,646	RE295,357	RE98,792	RE184,582
April	31,174	RE30,213	RE10,033	RE152,586	RE10,082	RE300,509	RE3,566	RE282,030	RE98,181	RE180,229
May	31,962	E31,018	E10,407	E155,972	E10,634	E298,833	E3,658	E293,825	E102,294	E190,037
2024 5-month YTD	**162,307**	**E151,986**	**E51,065**	**E774,944**	**E51,637**	**E1,600,762**	**E17,720**	**E1,419,919**	**E483,140**	**E914,525**
2023 5-month YTD	**159,394**	**E166,900**	**E53,893**	**E736,771**	**E56,534**	**E1,829,572**	**E17,389**	**E1,280,046**	**E433,278**	**E951,346**
2022 5-month YTD	**157,938**	**175,566**	**55,741**	**764,573**	**61,238**	**1,601,240**	**15,811**	**1,041,079**	**395,468**	**924,365**

See footnotes at end of table.

Table 7. Marketed production of natural gas in selected states and the Federal Gulf of Mexico, 2019-2024

million cubic feet – continued

Year and month	Oklahoma	Pennsylvania	Texas	Utah	West Virginia	Wyoming	Other states	Federal Gulf of Mexico	U.S. total
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 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	E241,437	E646,645	E935,962	E22,310	E256,931	E79,538	E31,536	E67,666	E3,428,769
February	E217,813	E572,742	E842,907	E18,969	E231,585	E69,492	E27,372	E59,490	E3,102,781
March	E240,498	E642,354	E961,177	E22,752	E266,638	E78,520	E27,921	E64,871	E3,474,934
April	E232,276	E619,656	E932,661	E22,593	E256,029	E75,109	E30,110	E58,454	E3,362,007
May	E237,558	E648,124	E982,394	E24,031	E268,279	E81,880	E30,706	E56,290	E3,499,909
June	E233,220	E627,912	E949,437	E24,338	E266,083	E80,375	E31,225	E57,076	E3,375,450
July	E238,429	E643,265	E985,195	E24,165	E279,996	E70,816	E32,548	E63,043	E3,494,802
August	E236,507	E648,577	E996,400	E25,154	E282,678	E79,142	E32,273	E59,986	E3,533,722
September	E234,235	E616,784	E966,776	E24,587	E268,946	E78,776	E31,376	E62,802	E3,426,002
October	E239,892	E640,992	E999,974	E25,742	E284,310	E85,128	E32,256	E61,707	E3,536,693
November	E229,910	E643,405	E974,811	E25,583	E282,583	E84,830	E30,876	E57,038	E3,468,760
December	E235,522	E669,263	E1,012,273	E26,418	E295,117	E87,440	E31,385	E59,102	E3,592,260
Total	**E2,817,297**	**E7,619,721**	**E11,539,96**	**E286,642**	**E3,239,174**	**E951,046**	**E369,584**	**E727,526**	**E41,296,088**
2024									
January	E225,757	E666,020	E972,060	E26,309	E287,332	E84,996	E30,998	E58,709	E3,479,605
February	E219,966	E617,929	E942,372	E24,097	E269,068	E81,306	E29,139	E54,000	E3,348,871
March	RE232,361	RE601,193	RE1,010,598	RE25,726	E284,527	RE85,486	RE30,596	RE54,491	RE3,487,321
April	RE225,713	RE584,079	RE970,105	RE24,897	E276,227	RE79,867	RE29,916	RE57,510	RE3,346,918
May	E235,494	E603,628	E1,015,232	E25,742	E280,998	E81,452	E30,714	E53,351	E3,455,251
2024 5-month YTD	**E1,139,291**	**E3,072,849**	**E4,910,368**	**E126,771**	**E1,398,151**	**E413,106**	**E151,363**	**E278,061**	**E17,117,966**
2023 5-month YTD	**E1,169,582**	**E3,129,523**	**E4,655,100**	**E110,655**	**E1,279,461**	**E384,539**	**E147,644**	**E306,772**	**E16,868,399**
2022 5-month YTD	**1,100,131**	**3,122,288**	**4,376,558**	**104,287**	**1,166,605**	**428,350**	**159,905**	**312,318**	**15,963,459**

RE Revised estimated data.

E Estimated data.

Source: 2019-2022: 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.

Executive Summary

May 2024

Summary

In May 2024, the United States exported 646.3 Bcf and imported 247.8 Bcf of natural gas, which resulted in 398.5 Bcf of net exports.

U.S. LNG Exports

The United States exported 367.7 Bcf (56.9% of total U.S. natural gas exports) of natural gas in the form of liquefied natural gas (LNG) to 32 countries.

- Asia (186.6 Bcf, 50.8%), Europe (140.7 Bcf, 38.3%), Latin America/ Caribbean (40.4 Bcf, 11.0%)
- 21.0% increase from April 2024
- 0.3% increase from May 2023
- 84.8% of total LNG exports went to non-Free Trade Agreement countries (nFTA), while the remaining 15.2% went to Free Trade Agreement countries (FTA).

U.S. LNG exports to the top five countries of destination accounted for 48.6% of total U.S. LNG exports.

- India (45.3 Bcf, 12.3%), Japan (41.2 Bcf, 11.2%), Netherlands (37.7 Bcf, 10.3%), South Korea (28.4 Bcf, 7.7%), and Germany (26.2 Bcf, 7.1%).

U.S. Imports and Exports by Pipeline and Truck with Mexico

The United States exported 211.5 Bcf of natural gas to Mexico and imported less than 0.1 Bcf of natural gas from Mexico, which resulted in 211.5 Bcf of net exports.

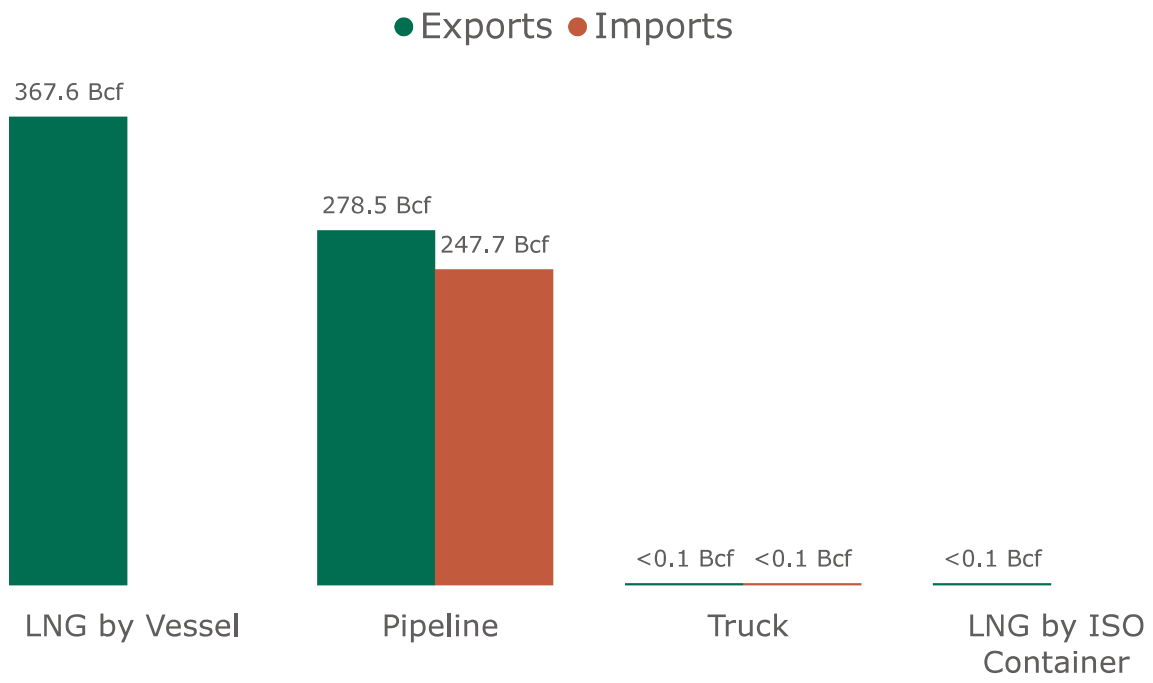
- 11.1% increase from April 2024
- 9.2% increase from May 2023

U.S. Imports and Exports by Pipeline and Truck with Canada

The United States exported 67.1 Bcf of natural gas to Canada and imported 247.7 Bcf of natural gas from Canada, which resulted in 180.7 Bcf of net imports.

- 14.9% increase from April 2024
- 24.8% increase from May 2023

U.S. Natural Gas Imports & Exports by Mode of Transport (May 2024)



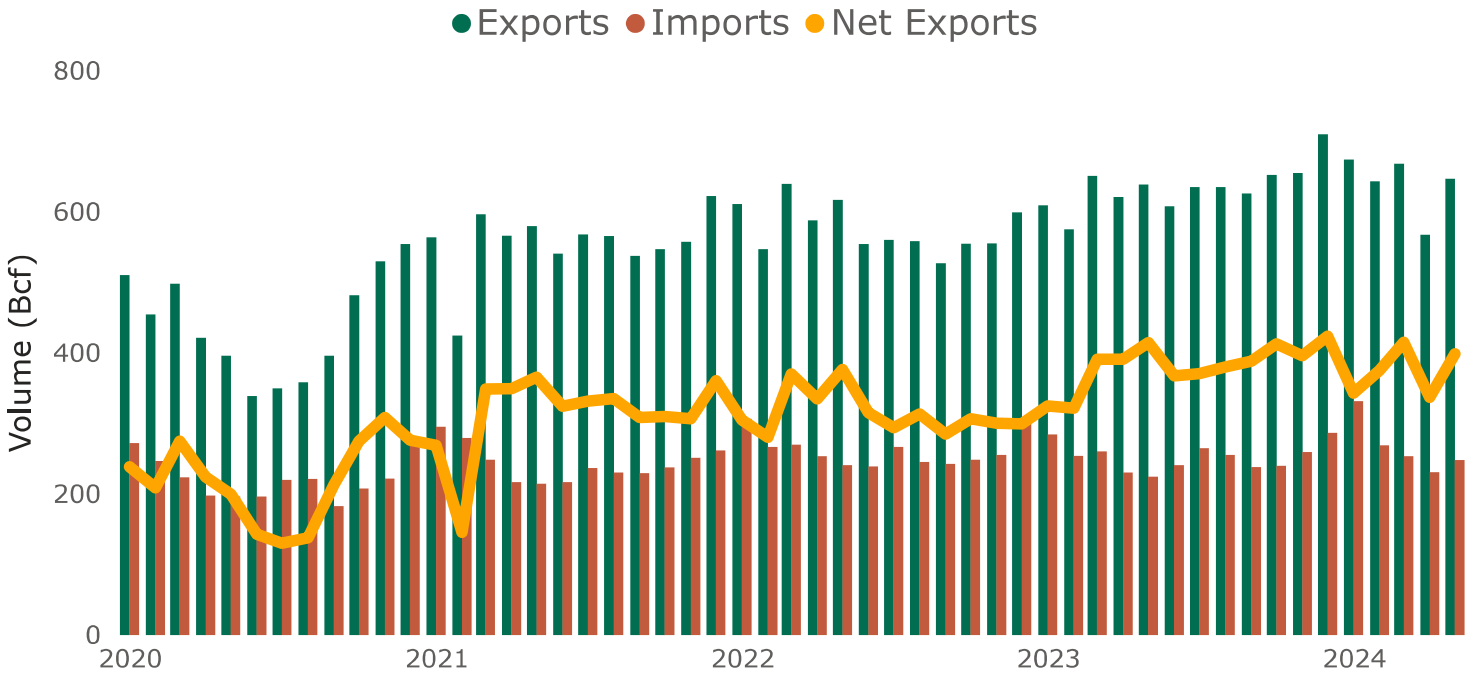
1a. Monthly Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)	Monthly			Percentage Change	
Mode of Transport	May 2024	Apr 2024	May 2023	May 2024 vs. Apr 2024	May 2024 vs. May 2023
Exports					
LNG by Vessel	367.6	303.7	366.7	21%	<1%
Pipeline	278.5	263.4	271.6	6%	3%
Truck	<0.1	<0.1	<0.1	28%	-14%
LNG by ISO Container	<0.1	<0.1	<0.1	21%	29%
Total	**646.3**	**567.2**	**638.4**	**14%**	**1%**
Imports					
LNG by Vessel	0	0	1.4	–	-100%
Pipeline	247.7	230.3	222.5	8%	11%
Truck	<0.1	<0.1	0.3	-28%	-81%
LNG by ISO Container	0	0	0	–	–
Total	**247.8**	**230.4**	**224.2**	**8%**	**11%**
Net Exports	**398.5**	**336.8**	**414.2**	**18%**	**-4%**

Notes

- Natural gas imports & exports by truck included compressed natural gas (CNG) and liquefied natural gas (LNG).
- Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.
- Totals may not equal sum of components because of independent rounding.
- not applicable(-).

U.S. Natural Gas Imports & Exports



1b. Year-to-Date and Annual Summary: U.S. Natural Gas Imports & Exports by Mode of Transport

Volume (Bcf)	Year-to-Date (Jan-May)			Annual		
Mode of Transport	**YTD 2024**	**YTD 2023**	**% Change**	**2023**	**2022**	**% Change**
Exports						
LNG by Vessel	1,796.1	1,771.5	1%	4,341.2	3,861.9	12%
Pipeline	1,401.6	1,320.2	6%	3,267.7	3,040.8	7%
Truck	<0.1	0.4	-78%	0.7	1.6	-58%
LNG by ISO Container	0.4	0.7	-44%	1.1	2.1	-48%
Total	**3,198.2**	**3,092.8**	**3%**	**7,610.7**	**6,906.4**	**10%**
Imports						
LNG by Vessel	11.5	9.3	24%	13.2	23.5	-44%
Pipeline	1,318.8	1,241.0	6%	3,016.8	3,104.0	-3%
Truck	0.6	0.8	-32%	2.4	2.1	14%
LNG by ISO Container	0	0	–	0	0	–
Total	**1,330.9**	**1,251.0**	**6%**	**3,032.4**	**3,129.6**	**-3%**
Net Exports	**1,867.9**	**1,841.8**	**1%**	**4,578.3**	**3,776.8**	**21%**

Notes

- Does not include LNG Re-Exports or Puerto Rico LNG Imports or Exports. See Table 6 for LNG Re-Exports and Table 8 for Puerto Rico LNG Imports and Exports.
- Totals may not equal sum of components because of independent rounding.
- not applicable(-).

https://group.met.com/en/media/press-releases/met-group-secures-long-term-us-lng-source-from-shell

MET Group secures long-term US LNG source from Shell

July 9, 2024

Swiss-based MET Group has entered into a long-term FOB (Free-On-Board) LNG purchase agreement, by signing a 10-year agreement with Shell. MET's primary objective is to supply its European customers with US LNG.

Through the long-term contract with Shell, MET Group is able to further diversify its LNG supply portfolio, helping to ensure security of supply for its customers across Europe, ranging from its own gas-fired power plant demand to energy-intensive industrial companies and SMEs and households. Alongside bolstering security of supply for MET's European portfolio, this flexible LNG supply enables its diversification ambitions, allowing the company to extend its geographical scope to new regions such as Asia.

MET has one of the most diversified LNG import structures from a geographical perspective in Europe. The integrated energy company has long-term regasification capacity bookings in Germany, Croatia and Spain, and has imported into 8 different countries in recent years – including around the Mediterranean (Greece, Italy, Croatia, Spain), Northwest Europe (UK, Belgium, Germany) and the Nordic region (Finland). In 2023, MET delivered more than 30 cargoes of LNG to Europe.

György Vargha, CEO of MET International AG said: "The long-term FOB source fits perfectly into MET's LNG strategy. We have a diverse European downstream position building on a regasification capacity portfolio around Europe, optimizing our downstream requirements with flexible supply sources. As a natural next step, we have entered a long-term FOB position enabling diversification to the global LNG markets."

Tom Summers, Senior Vice President of Shell LNG Marketing and Trading, said: "LNG has a crucial role to play in delivering energy security and agreements such as this are instrumental in achieving that. We look forward to working with MET Group to fulfil their gas requirements and help to meet the needs of its diverse customer base."

MET Group

MET Group is an integrated European energy company, headquartered in Switzerland, with activities and assets in natural gas and power markets. MET is present in 15 countries through subsidiaries, 30 national gas markets, and 39 international trading hubs. MET has extensive experience in operating green (renewable) and flexible (conventional) energy assets, thus providing the widest possible support to the energy transition. In 2023, MET Group's consolidated sales revenue amounted to EUR 24.5 billion, with a total traded volume of natural gas amounting to 88 BCM and total traded electricity of 68 TWh.

Table 1. Production of crude oil and lease condensate in the United States
thousand barrels per day

State	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024												
Alabama	9	9	9	10	9							
Alaska	427	432	433	430	417							
Arizona	0	0	0	0	0							
Arkansas	11	12	12	11	11							
California	299	293	294	291	289							
Colorado	446	470	475	457	453							
Florida	3	2	3	2	3							
Idaho	0	0	0	0	0							
Illinois	17	20	19	19	20							
Indiana	4	5	5	5	5							
Kansas	61	73	75	75	75							
Kentucky	4	7	7	6	6							
Louisiana	87	89	89	88	86							
Michigan	11	10	10	10	10							
Mississippi	33	35	34	34	34							
Missouri	0	0	0	0	0							
Montana	61	67	72	74	74							
Nebraska	3	4	4	4	4							
Nevada	0	1	1	0	0							
New Mexico	1,862	1,983	2,013	1,995	2,015							
New York	1	1	1	1	1							
North Dakota	1,102	1,248	1,215	1,225	1,182							
Ohio	88	81	82	95	95							
Oklahoma	388	397	400	409	396							
Pennsylvania	14	12	13	12	13							
South Dakota	2	2	3	2	2							
Tennessee	0	0	0	0	0							
Texas	5,373	5,548	5,583	5,632	5,667							
Utah	167	160	162	174	187							
Virginia	0	0	0	0	0							
West Virginia	46	42	39	42	42							
Wyoming	279	298	296	297	291							
Federal Offshore Gulf of Mexico	1,743	1,790	1,815	1,828	1,782							
Federal Offshore Pacific	10	11	11	11	10							
U.S. Total	**12,554**	**13,102**	**13,171**	**13,239**	**13,178**							
2023												
Alabama	10	10	10	10	9	10	10	10	10	10	10	10
Alaska	448	446	435	434	430	423	397	396	415	426	428	433
Arizona	0	0	0	0	0	0	0	0	0	0	0	0
Arkansas	12	12	12	13	12	12	12	12	12	12	12	12
California	324	331	330	337	336	342	337	334	307	306	305	303
Colorado	429	420	437	450	457	464	457	466	459	472	483	488
Florida	3	1	2	3	3	3	3	3	3	3	3	3
Idaho	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	19	20	19	18	19	19	18	19	19	19	19	19
Indiana	4	4	4	4	4	4	4	4	4	4	4	4
Kansas	75	77	79	78	78	78	74	77	75	74	74	71
Kentucky	3	4	6	6	2	10	2	7	7	3	4	7

See notes and sources at end of table.

Table 1. Production of crude oil and lease condensate in the United States, continued

thousand barrels per day

State	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Louisiana	101	99	97	95	94	93	92	94	92	92	89	88
Michigan	13	13	13	13	14	13	13	14	13	13	13	13
Mississippi	34	35	34	35	35	34	34	34	35	35	35	35
Missouri	0	0	0	0	0	0	0	0	0	0	0	0
Montana	62	64	65	62	61	60	57	62	63	63	63	63
Nebraska	4	5	5	5	5	5	5	5	4	5	5	4
Nevada	1	1	1	1	1	1	1	1	1	1	1	1
New Mexico	1,838	1,805	1,841	1,851	1,799	1,735	1,748	1,799	1,811	1,804	1,894	1,953
New York	1	1	1	1	1	1	1	1	1	1	1	1
North Dakota	1,053	1,147	1,112	1,122	1,127	1,160	1,173	1,207	1,287	1,253	1,278	1,275
Ohio	78	78	78	82	82	82	77	77	77	91	91	91
Oklahoma	425	426	440	435	452	435	439	433	421	416	418	415
Pennsylvania	13	13	13	14	14	13	13	13	12	13	15	13
South Dakota	3	2	3	3	3	2	2	3	3	2	2	2
Tennessee	0	0	0	0	0	0	0	0	0	0	0	0
Texas	5,316	5,291	5,454	5,408	5,500	5,538	5,560	5,603	5,570	5,586	5,658	5,631
Utah	126	130	136	145	152	157	156	163	170	172	174	173
Virginia	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia	49	54	52	48	50	52	54	55	51	53	49	43
Wyoming	245	241	258	252	261	266	264	272	270	275	288	292
Federal Offshore Gulf of Mexico	1,914	1,854	1,877	1,750	1,721	1,845	1,925	1,876	1,974	1,935	1,856	1,852
Federal Offshore Pacific	6	5	5	6	9	9	9	9	10	10	10	10
U.S. Total	**12,611**	**12,591**	**12,815**	**12,680**	**12,730**	**12,866**	**12,935**	**13,047**	**13,177**	**13,149**	**13,281**	**13,308**
U.S. Total												
2022	**11,442**	**11,467**	**11,875**	**11,812**	**11,742**	**11,913**	**11,992**	**12,123**	**12,439**	**12,431**	**12,467**	**12,175**
2021	**11,137**	**9,916**	**11,351**	**11,318**	**11,390**	**11,366**	**11,392**	**11,276**	**10,921**	**11,564**	**11,782**	**11,678**
2020	**12,850**	**12,844**	**12,795**	**11,911**	**9,714**	**10,446**	**11,004**	**10,579**	**10,926**	**10,456**	**11,196**	**11,172**
2019	**11,871**	**11,652**	**11,911**	**12,145**	**12,153**	**12,216**	**11,896**	**12,479**	**12,584**	**12,805**	**13,000**	**12,980**
2018	**10,000**	**10,262**	**10,466**	**10,499**	**10,434**	**10,640**	**10,896**	**11,391**	**11,443**	**11,508**	**11,885**	**11,944**

Notes: Volumes are rounded to the nearest whole number; a zero may indicate volume of less than 0.5 thousand barrels per day. The sum of individual states/areas may not equal total U.S. volumes due to independent rounding.
Data are subject to revision.

Sources: All data for Alaska are sourced directly from Alaska Oil and Gas Conservation Commission.
For 2023 and 2024, data collected on Form EIA-914, *Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report*, have been used to estimate the following states/areas: Arkansas, California, Colorado, Federal Offshore Gulf of Mexico, Kansas, Louisiana, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, West Virginia, and Wyoming. The remaining states/areas are estimated based on various sources including first purchase volumes collected on Form EIA-182, Domestic Crude Oil First Purchase Report, state regulatory agencies, the Bureau of Safety and Environmental Enforcement (BSEE), Enverus, and S&P Global.
For 2018-2022, volumes originally estimated have typically been revised using data sourced from various state regulatory agencies and the Bureau of Safety and Environmental Enforcement. Commercial data sources may also have been used for revision purposes (e.g., Enverus, S&P Global).

https://www.state.gov/assessing-the-results-of-venezuelas-presidential-election/

Assessing the Results of Venezuela's Presidential Election

Press Statement

Antony J. Blinken, Secretary of State

August 1, 2024

The United States applauds the Venezuelan people for their participation in the July 28 presidential election despite significant challenges. At least 12 million Venezuelans peacefully went to the polls and exercised one of the most powerful rights given to people in any democracy: the right to vote. Unfortunately, the processing of those votes and the announcement of results by the Maduro-controlled National Electoral Council (CNE) were deeply flawed, yielding an announced outcome that does not represent the will of the Venezuelan people.

The CNE's rapid declaration of Nicolás Maduro as the winner of the presidential election came with no supporting evidence. The CNE still has not published disaggregated data or any of the vote tally sheets, despite repeated calls from Venezuelans and the international community to do so. As the independent Carter Center's observation mission reported, the CNE's failure to provide the precinct-level official results, as well as irregularities throughout the process, have stripped the CNE's announced outcome of any credibility.

Meanwhile, the democratic opposition has published more than 80 percent of the tally sheets received directly from polling stations throughout Venezuela. Those tally sheets indicate that Edmundo González Urrutia received the most votes in this election by an insurmountable margin. Independent observers have corroborated these facts, and this outcome was also supported by election day exit polls and quick counts. In the days since the election, we have consulted widely with partners and allies around the world, and while countries have taken different approaches in responding, none have concluded that Nicolás Maduro received the most votes this election.

Given the overwhelming evidence, it is clear to the United States and, most importantly, to the Venezuelan people that Edmundo González Urrutia won the most votes in Venezuela's July 28 presidential election.

In addition, the United States rejects Maduro's unsubstantiated allegations against opposition leaders. Maduro and his representatives' threats to arrest opposition leaders, including Edmundo González and María Corina Machado, are an undemocratic attempt to repress political participation and retain power. The safety and security of the democratic opposition leaders and members must be protected. All Venezuelans arrested while peacefully exercising their right to participate in the electoral process or demand transparency in the tabulation and announcement of results should be released immediately. Law enforcement and security forces should not become an instrument of political violence used against citizens exercising their democratic rights.

We congratulate Edmundo González Urrutia on his successful campaign. Now is the time for the Venezuelan parties to begin discussions on a respectful, peaceful transition in accordance with Venezuelan electoral law and the wishes of the Venezuelan people. We fully support the process of re-establishing democratic norms in Venezuela and stand ready to consider ways to bolster it jointly with our international partners.

https://avn.info.ve/presidente-maduro-eeuu-debe-sacar-sus-narices-de-venezuela-2/

President Maduro: U.S. Must Stick Its Noses Out of Venezuela

APERTURE August 2, 2024 | **Updated:** August 2, 2024

Share

Caracas, Aug 01. AVN.- The President of the Republic, Nicolás Maduro, referred to the recognition that the Government of the United States gave this Thursday to the former candidate defeated in the elections of last Sunday, July 28, Edmundo González, for which he urged Washington to stick its nose out of Venezuela.

"Now, then, the United States comes out to say that Venezuela has another president. The United States must stick its nose out of Venezuela, because the sovereign people are the ones who rule in Venezuela, the ones who put in, the ones who choose, the ones who say, the ones who decide. It is a horrific contradiction," he emphasized in a day of work in the Ayacucho Hall of the Miraflores Palace, Caracas.

The head of state explained that the National Electoral Council (CNE) suffered a brutal attack for which Anonymous claimed responsibility, as well as the attack on 25 institutions to prevent electoral results.

In this regard, he recalled that on Wednesday he filed an electoral appeal before the Supreme Court of Justice (TSJ) to review the entire electoral process.

"So, the process in Venezuela, legally, constitutionally and institutionally, is still to be completed and the United States says that it has the minutes and the evidence 'because they are the CNE'...," he said.

Likewise, regarding the process before the TSJ, he said that Edmundo González was an agent of the U.S. Central Intelligence Center. He is expected to assume his responsibility and attend the summons made by the highest court.

Earlier, the president of the TSJ and the Electoral Chamber, Caryslia Beatriz Rodríguez, announced that they admit, undertake and initiate the process of investigation and verification to certify the electoral results in an unrestricted manner, after the contentious appeal filed by President Maduro.

The court summoned for this Friday at 2:00 p.m. Maduro, Luis Martínez, Edmundo González, Daniel Ceballos, Antonio Ecarri, Benjamín Rausseo, Enrique Márquez, José Brito, Javier Bertucci and Claudio Fermín, in their capacity as candidates.

Maduro won the elections with 51.20% of the votes, according to the first CNE bulletin with 80% of the data transmitted, which shows a forceful and irreversible trend.

The far right, which supports candidate Edmundo González, did not recognize the result and launched a violent plan that also consisted of a stage prior to the bulletin, attacking the CNE's transmission platform.

END/AVN/ AM/

THE LATES

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Operates Norma
August 2, 2024

07/26/2024 09:49:45 [BN] Bloomberg News

Russia Oil–Refining Rate Edges Closer to 2024 High as Works End

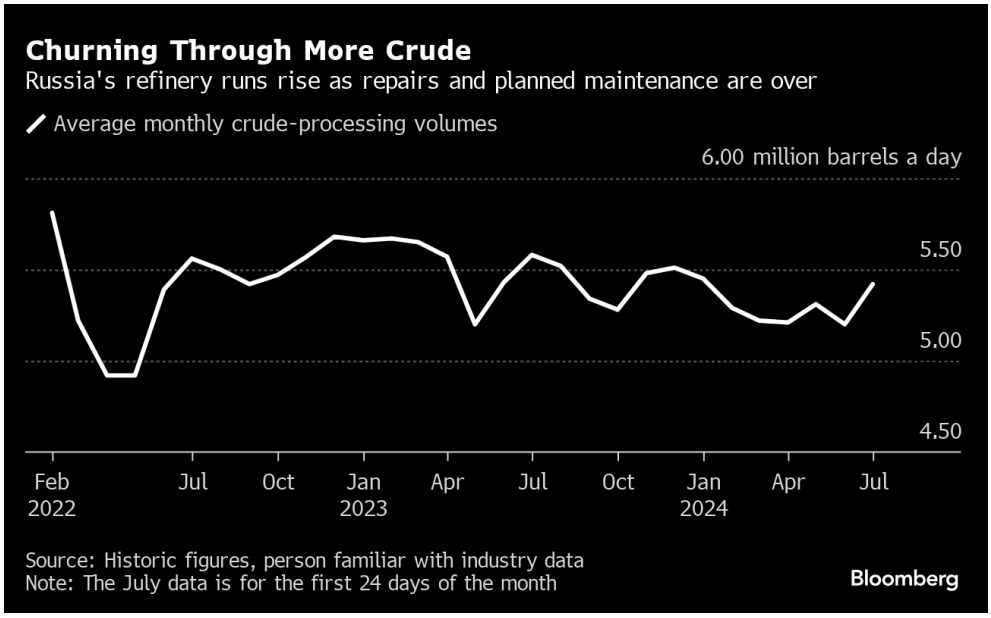
- Oil processing averaged 5.42 million b/d between July 1–24
- Domestic oil consumption grows while seaborne exports decline

By Bloomberg News

(Bloomberg) –– Russia's oil–refining rate so far in July has been close to the highest seen at the start of the year after the completion of seasonal maintenance works.

The country's facilities processed an average of 5.42 million barrels a day of crude from July 1 to 24, according to a person with knowledge of industry data. That's only marginally below the average runs seen in January, when the government in Kyiv started attacking Russian oil–processing plants in retaliation for the invasion of Ukraine.

Kyiv last conducted a drone attack on a major Russian refinery on July 22, causing a fire at Rosneft PJSC's Tuapse plant close to the Black Sea coast. The facility continued operations following the strike, Deputy Prime Minister Alexander Novak said a day later, according to Russian media.



Russia's refinery runs remain one of the key indicators – alongside the nation's seaborne shipments to foreign markets – for market watchers to understand trends in its oil industry, since the government classified official output data following Western sanctions.

As the nation's oil producers complete planned downstream maintenance, they're re–directing export flows to supply the domestic market with more fuel ahead of peak demand during vacations and the harvest season. As of July 21,

Russia's four-week average seaborne crude shipments slumped to 3.06 million barrels a day, the lowest since December, according to ship-tracking data gathered by Bloomberg.

Daily refinery runs grew to an average 5.45 million barrels a day for July 18 to 24, according to the person. That's some 133,000 barrels a day above the average for the previous seven days, with the increase driven by a gradual return of several facilities online after maintenance, the person said.

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07/30/2024 07:41:54 [BN] Bloomberg News

Russia's Seaborne Crude Exports Slump to 11-Month Low

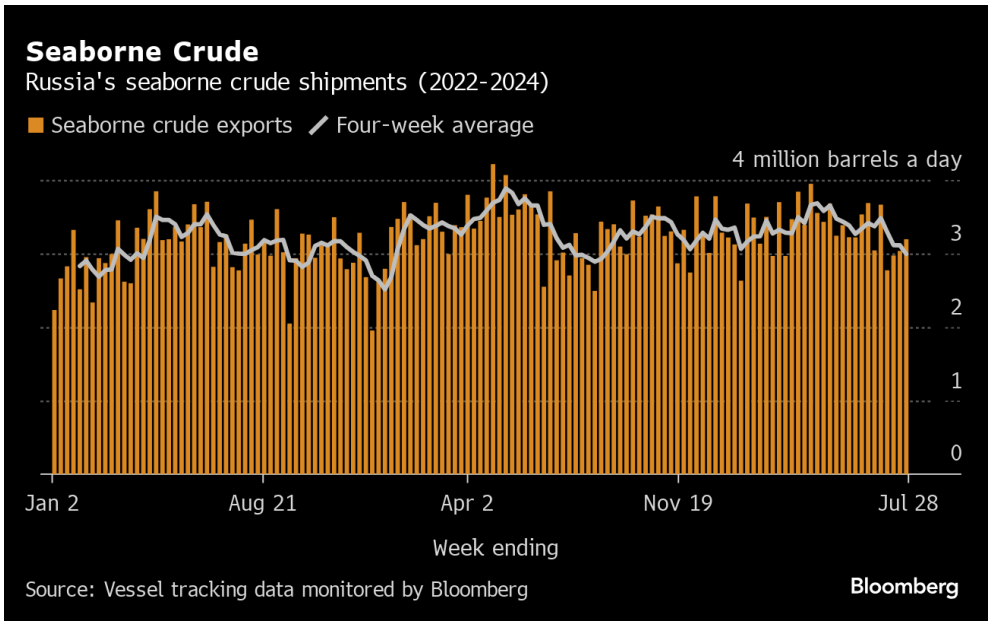
Shipments from Baltic ports equaled their lowest since December 2022

By Julian Lee

(Bloomberg) -- Russia's four-week average crude exports dropped to the lowest since late August of last year amid a plunge that's cut 710,000 barrels a day from the recent peak in April. The slump comes despite a small increase in weekly flows.

The decline – the fourth straight – likely stems from Russia's improving compliance with an OPEC+ output target, coupled with a recovery in domestic refining. Moscow plans to make extra production cuts later this year and during the warmer months of 2025 to compensate for pumping above its quota, set by the group, earlier this year. Meanwhile, refinery runs are edging closer to a six-month high in July. A Ukrainian drone attack on July 22 caused a fire at Rosneft's Tuapse refinery, but didn't stop the plant from running.

A five-day gap in the loading program for Ust-Luga, covering most of the past week, suggests that maintenance cut into flows from the port, with just a single tanker leaving in the seven days to July 28. Shipments from Baltic ports fell below 1 million barrels a day, equaling their lowest since December 2022. But the drop was offset by an increase in shipments from other terminals.



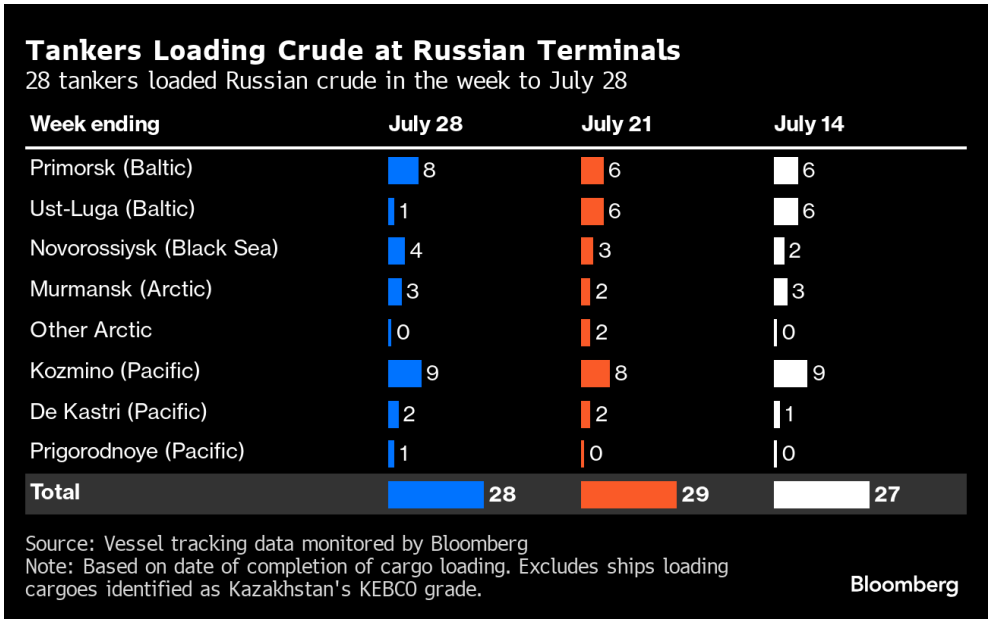
Separately, Ukraine has toughened sanctions on Russia's Lukoil PJSC, preventing it from supplying piped crude to refineries in Central Europe across Ukrainian territory. Lukoil will divert about 90,000 barrels a day of crude that it is unable to deliver to Hungary and Slovakia to other destinations. Two late-July Lukoil cargoes have been added to the loading program from Primorsk, also on the Baltic.

A fourth sanctioned Russian tanker has now loaded a cargo. The Viktor Bakaev left Primorsk on July 21 and is now heading for the Northern Sea Route to China. All three of the other designated vessels that have hauled Russian crude subsequently switched their cargoes onto other ships while obscuring their positions from automated tracking systems. The first barrels have now been offloaded in China, according to TankerTrackers.com Inc., which specializes in detecting secretive cargo movements. The other two appear to have been transferred onto the supertanker Oxis in the Gulf of Oman and area now heading through the Strait of Malacca.

Sanctions are increasingly delaying or disrupting payments to and from places like China, India and Turkey. That's making it difficult, and sometimes impossible, to execute transactions, particularly with China.

Crude Shipments

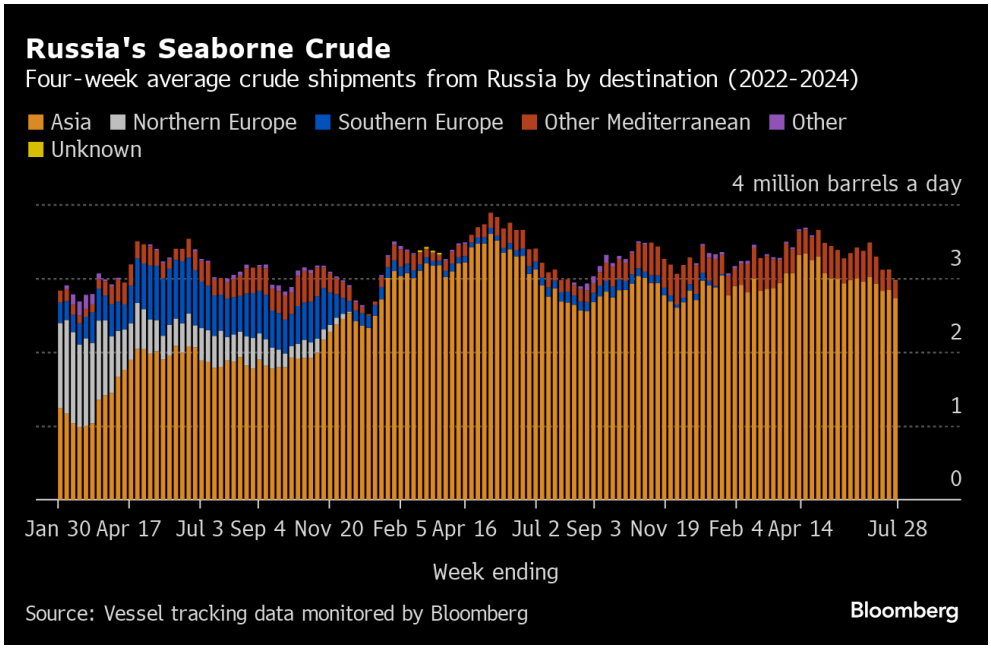
A total of 28 tankers loaded 21.78 million barrels of Russian crude in the week to July 28, vessel-tracking data and port-agent reports show. The volume was up from a revised 21.24 million barrels on 29 ships the previous week, which included one of the Arctic Gates shuttle tankers that headed directly to China via the Northern Sea Route and another small tanker that loaded the first cargo in at least a year from the small oil field on Kolguyev Island.



It means Russia's seaborne daily crude flows in the week to July 28 rose by about 75,000 barrels to 3.11 million, their third straight increase. But it wasn't enough to reverse the continuing fall in the less volatile four-week average, which dropped by another 140,000 barrels a day to 2.97 million, its lowest since August 2023.

The Sakhalin Island terminal of Prigorodnoye saw its first crude shipment of the month. Only one of the shuttle tankers used by the Sakhalin 2 project appears to be operating normally. One other has been at a Chinese shipyard since mid-June and the third remains anchored off the export terminal after loading a partial cargo in late June.

Crude shipments so far this year are about 30,000 barrels a day below the average for the whole of 2023.



Russia terminated its export targets at the end of May, opting instead to restrict production, in line with its partners in the OPEC+ oil producers' group. The country's output target is set at 8.978 million barrels a day until the end of September, after which it is scheduled to rise at a rate of 39,000 barrels a day each month until September 2025, as long as market conditions allow.

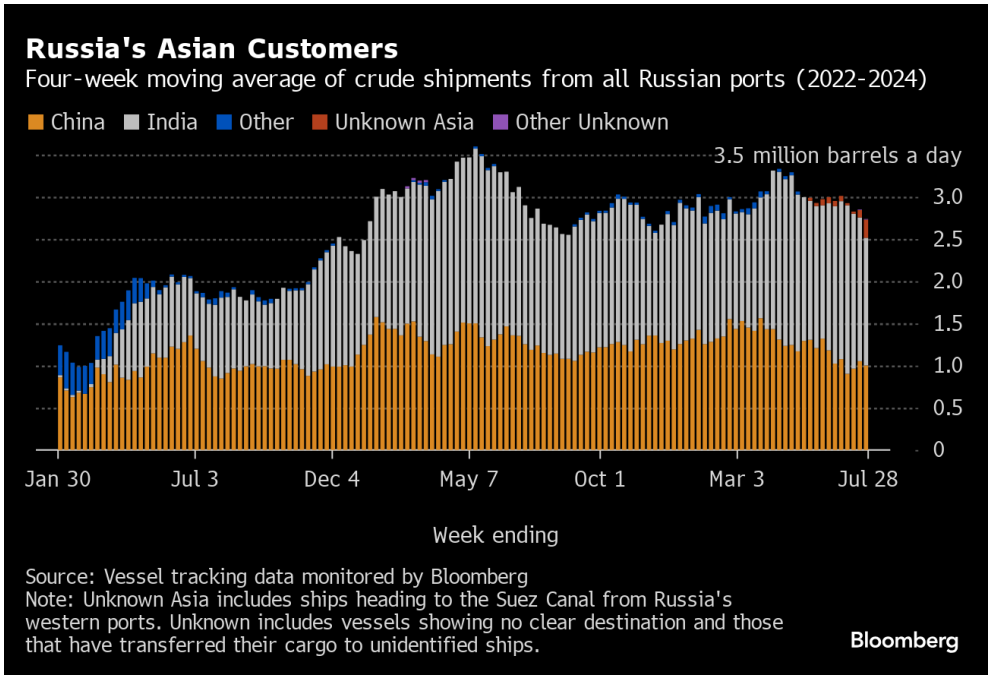
Moscow has also pledged to make deeper output cuts in October and November this year, then between March and September of 2025, to compensate for pumping above its OPEC+ quota earlier this year.

One cargo of Kazakhstan's KEBCO crude was loaded at Novorossiysk and one at Ust-Luga during the week.

Flows by Destination

- **Asia**

Observed shipments to Russia's Asian customers, including those showing no final destination, fell to a seven-month low of 2.74 million barrels a day in the four weeks to July 28.



About 1 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 1.51 million barrels a day, down from the revised figure of 1.7 million for the period to July 21.

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

The equivalent of about 220,000 barrels a day was on vessels signaling Port Said or Suez in Egypt. Those voyages typically end at ports in India or China and show up as "Unknown Asia" until a final destination becomes apparent.

The "Other Unknown" volumes, running at about 10,000 barrels a day in the four weeks to July 28, are those on tankers showing no clear destination. Most originate from Russia's western ports and go on to transit the Suez Canal, but some could end up in Turkey. Others may be moved from one vessel to another, with the majority of such transfers now taking place in the Mediterranean, most recently off Morocco, or near Sohar in Oman.

Russia's oil flows continue to be complicated by the Greek navy carrying out exercises in an area that's become associated with the transfer of Russian crude. These naval drills have now been extended to Sep. 15.

Crude Shipments to Asia
Shipments of Russian crude to Asian buyers in million barrels a day

4 weeks ending	China	India	Other	Unknown Asia	Other Unknown	Total
June 23, 2024	1.02	1.86	0.00	0.06	0.00	2.95
June 30, 2024	1.08	1.87	0.00	0.06	0.00	3.01
July 7, 2024	0.90	2.00	0.00	0.03	0.00	2.93
July 14, 2024	0.96	1.84	0.00	0.03	0.00	2.83
July 21, 2024	1.05	1.70	0.00	0.09	0.01	2.85
July 28, 2024	1.00	1.51	0.00	0.22	0.01	2.74

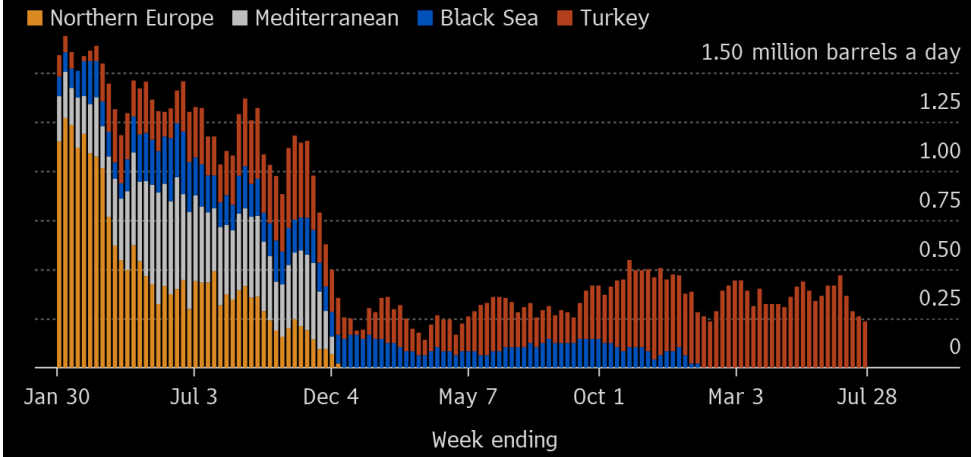
Source: Vessel tracking data compiled by Bloomberg Bloomberg

- **Europe and Turkey**

Russia's seaborne crude exports to European countries have ceased, with flows to Bulgaria halted at the end of last year. Moscow also lost about 500,000 barrels a day of pipeline exports to Poland and Germany at the start of 2023, when those countries stopped purchases.

Turkey is now the only short-haul market for shipments from Russia's western ports, with flows in the 28 days to July 28 edging lower to about 235,000 barrels a day, their lowest since February.

Russia's Crude Shipments to Europe and Turkey
Four-week average crude shipments from Russia (2022-2024)



Source: Vessel tracking data monitored by Bloomberg
Note: Four-week moving average of crude shipments from all Russian ports. Bloomberg

Export Value

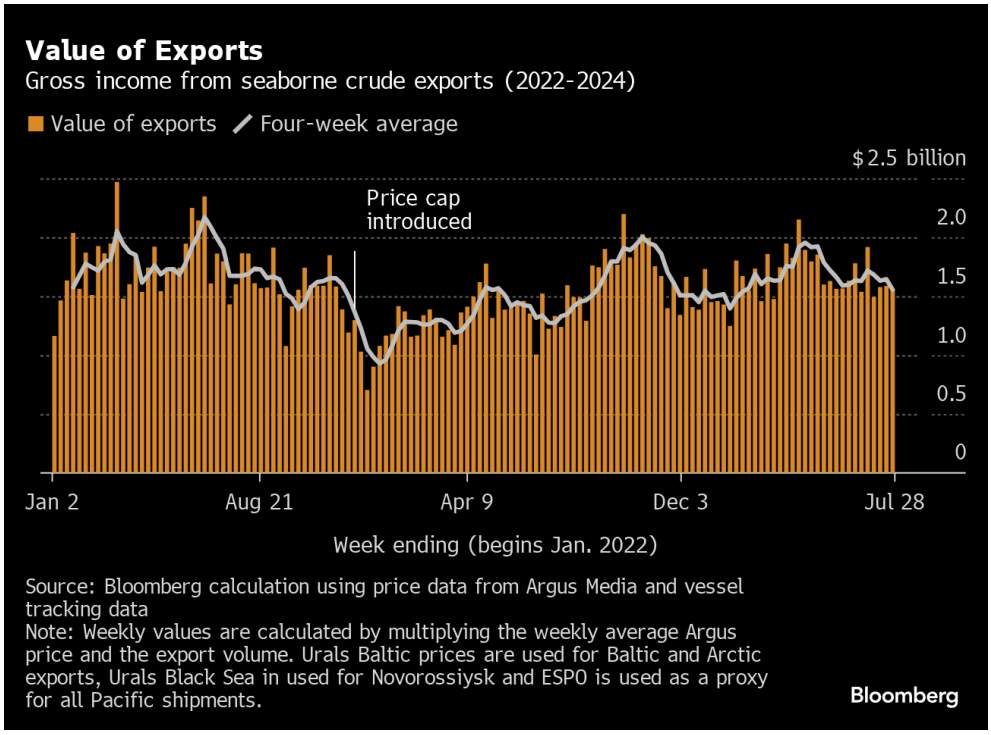
The gross value of Russia's crude exports fell back to $1.56 billion in the seven days to July 28, from a revised

$1.59 billion in the period to July 21. The higher weekly flows were more than offset by a third weekly drop in prices for Russia's major crude streams.

Export values at Baltic and Black Sea ports were down week-on-week by more than $3.50 a barrel, while key Pacific grade ESPO fell by about $3.10 a barrel. Delivered prices in India also dropped, down by about $3.60 a barrel, all according to numbers from Argus Media.

Four-week average income was also down, falling by about $90 million to $1.55 billion a week. The four-week average peak of $2.17 billion a week was reached in the period to June 19, 2022.

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.



NOTES

This story forms part of a weekly series tracking shipments of crude from Russian export terminals and the gross value of those flows. The next update will be on Wednesday, Aug. 14.

All figures exclude cargoes identified as Kazakhstan's KEBCO grade. Those are shipments made by KazTransoil JSC that transit Russia for export through Novorossiysk and 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 stream. Since Russia's invasion of Ukraine, Kazakhstan has rebranded its cargoes to distinguish them from those shipped by Russian companies.

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.

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

--With assistance from Sherry Su.

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https://www.opec.org/opec_web/en/press_room/7359.htm

55th JMMC Meeting Highlights Commitment to Production Conformity and Continued Oil Market Assessment

No 10/2024
Vienna, Austria
01 Aug 2024

The Joint Ministerial Monitoring Committee (JMMC) reviewed the crude oil production data for the months of May and June 2024 and noted the high overall conformity for participating OPEC and non-OPEC countries of the Declaration of Cooperation (DoC).

The Committee noted the Republic of Iraq, the Republic of Kazakhstan, and the Russian Federation assurance during the meeting to achieve full conformity and welcomed the recent submission of their compensation plans for the overproduced volumes since Jan 2024 to the OPEC Secretariat.

During today's meeting, the member countries that participated in the June 2nd, 2024 meeting in Riyadh along with Oman, reiterated that the gradual phase-out of the voluntary reduction of oil production could be paused or reversed, depending on prevailing market conditions. These countries had announced the extension of the voluntary reduction of oil production by 2.2 million barrels per day until the end of September 2024 and outlined plans for this reduction to be gradually phased out on a monthly basis until the end of September 2025.

The Committee will continue to monitor the conformity of the production adjustments decided at the 37th ONOMM held on the 2nd of June 2024, including the additional voluntary production adjustments announced by some participating OPEC and non-OPEC countries and will continue to closely assess market conditions.

The JMMC retains the authority to convene additional meetings or to request an OPEC and non-OPEC Ministerial Meeting, as outlined during the 37th ONOMM held on the 2nd of June 2024.

The next meeting of the JMMC (56th) is scheduled for 02 October 2024.

Excerpt from Blomberg posted:
Secretary Antony J. Blinken At Aspen Security Forum Fireside Chat Moderated by Mary Louise Kelly of National..,sked FINAL
2024-07-19 19:54:14.649 GMT

TRANSCRIPT

SECRETARY ANTONY J. BLINKEN AT ASPEN SECURITY FORUM FIRESIDE CHAT MODERATED BY MARY LOUISE KELLY OF NATIONAL PUBLIC RADIO, AS RELEASED BY THE STATE DEPARTMENT

JULY 19, 2024

SPEAKERS:
SECRETARY ANTONY J. BLINKEN

MS KELLY: Thank you for making the case for hope. Iran, you mentioned - stay there. They just held presidential elections of their own. What opportunities do you see with this new reformist president, President Pezeshkian?

SECRETARY BLINKEN: Well, I think we'll of course look to see what policies Iran pursues. But the reality is, the bottom line is the supreme leader continues to call the shots. So I can't say that we have any great expectations, but let's see what he and his team actually do once they're in office.

As you know, when this administration came in, we tried to pursue again nuclear diplomacy with Iran, because if you can at least take one problem off the board, which is Iran potentially with a nuclear weapon, that's inherently a good thing. We had, as you know, well, an agreement reached during the Obama administration that actually put Iran's nuclear program in a box. And one of the biggest mistakes that we've made in recent years, was throwing out that agreement and allowing Iran to get out of the box that we put it in. So we were testing the proposition about whether we could at least recreate something that looked like that, but --

MS KELLY: Every time I've interviewed you as Secretary, I have asked you the same question: Is U.S. policy still that Iran must not be allowed to get a nuclear weapon?

SECRETARY BLINKEN: It is, resolutely.

MS KELLY: Which is what you always answer. And then I always ask: So how are you going to stop them? How are you going to stop them?

SECRETARY BLINKEN: Well, there are - by far, the preferable way to do it would be through diplomacy. Where we are now is not in a good place. Iran, because the nuclear agreement was thrown out, instead of being at least a year away from having the breakout capacity of producing fissile material for a nuclear weapon, is now probably one or two weeks away from doing that. Now, they haven't developed a weapon itself --

MS KELLY: Just one or two weeks, that's what --

SECRETARY BLINKEN: One or two weeks is probably what the realistic breakout time is. They are - they haven't produced a weapon itself, but that's something of course that we track very, very carefully. And you put those two things together - the fissile material, an explosive device - and you have a nuclear weapon.

So we're focused on that. What we've seen in the last weeks and months is Iran that's actually moving forward with its program. So the first thing we need to see if Iran is serious about engaging is actually pulling back on the work that it's doing on its program.

Second, we of course have been maximizing pressure on Iran across the board. We've imposed more than 600 sanctions on Iranian persons, entities of one kind or another. We haven't lifted a single sanction. And we have much closer coordination now with European partners and allies.

MS KELLY: I guess that gets to my question, though. You're applying every tool in the toolkit, and yet you just told us they are moving forward.

SECRETARY BLINKEN: Well, they're moving forward in terms of the capacity to break out in producing fissile material. We're looking very carefully at anything they might be doing on weaponization. But it's important here as well to make sure that in doing this, we're acting in close concert with partners in Europe, in the region, and we've built that kind of approach in ways that we didn't have a few years ago.

Embargoed until 0945 CST (0145 UTC) 1 August 2024

Caixin China General Manufacturing PMI®

Operating conditions deteriorate amid a renewed fall in new orders

Operating conditions in China's manufacturing sector deteriorated at the start of the second half of 2024. A renewed reduction in new work inflows underpinned a marked slowdown in the pace of output growth. As a result, firms lowered their purchasing activity, though employment conditions remained relatively stable.

On the prices front, input cost inflation eased in the latest survey period, which alongside heightened competition led to Chinese manufacturers lowering average selling prices in July. Despite the latest softening of market conditions, business confidence improved across China's manufacturing sector.

The headline seasonally adjusted Purchasing Managers' Index™ (PMI®) – a composite indicator designed to provide a single-figure snapshot of operating conditions in the manufacturing economy – fell to 49.8 in July, down from 51.8 in June. Easing below the 50.0 neutral mark, the latest data signalled that conditions in the manufacturing sector deteriorated for the first time in nine months, albeit only marginally.

Manufacturing output expansion was the slowest in the nine-month sequence during July, attributed to the first fall in new orders for a year. According to panellists, subdued demand conditions and reductions in client budgets underpinned the latest fall in new work. Export orders meanwhile continued to rise, but the rate of growth slowed from June to a modest pace.

Sub-sector data revealed that reductions in new orders mainly unfolded in the investment and intermediate goods segments while the consumer goods sector expanded slightly in July.

Purchasing activity declined for the first time since October 2023 as Chinese manufacturers reduced their buying activity in a period of falling new orders. This led to a renewed depletion of stocks of purchases.

On the other hand, stocks of finished goods rose again, though this was partially driven by delays in outbound shipments. Supply constraints were further reflected by data on average lead times for the delivery of inputs, which lengthened for a second successive month.

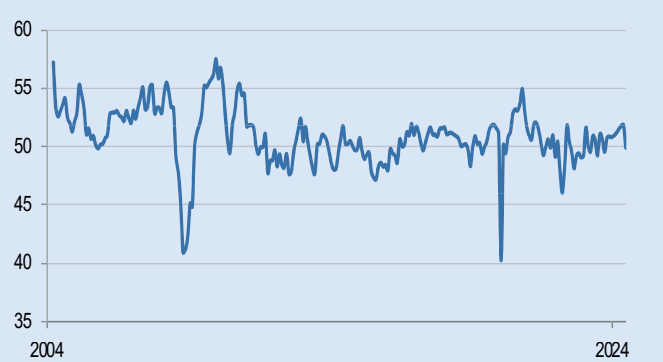
Employment levels remained relatively stable, falling only fractionally in July. While some firms added headcounts to cope with ongoing workloads, others opted to reduce staffing levels, anticipating lower production needs as new orders fell.

Turning to prices, average selling prices declined for the first time since May. Chinese manufacturers indicated reducing selling prices to support sales amid increased competition. This was partially supported by input cost inflation easing to the lowest in the current four-month sequence.

Finally, sentiment in the Chinese manufacturing sector remained positive in July, with the level of confidence rising from June's low. Despite the reduction in new work, firms were positive that business development efforts and the launch of new products can help to drive sales in the year ahead.

China General Manufacturing PMI

sa, >50 = improvement since previous month



Sources: Caixin, S&P Global PMI

Key findings:

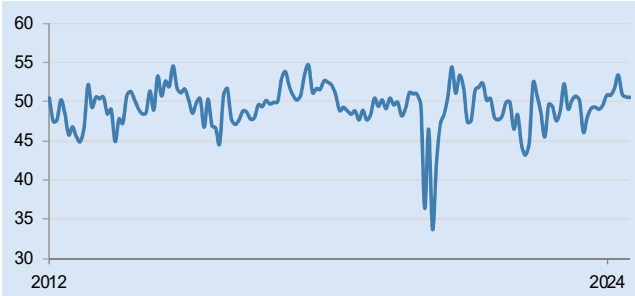
Output expands at the slowest pace in nine months

Average selling prices decline as input cost inflation eases

Business confidence improves in July

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 came in at 49.8 in July, down 2 points from the previous month, falling into contractionary territory for the first time in nine months. That said, the sector somewhat stabilized.

"Supply continued to outpace demand. Manufacturers' output grew for the ninth straight month in July, although the growth was marginal, indicating the production expansion was limited.

"Performance on the demand side was weaker, with total new orders declining for the first time since July last year. Clients' subdued spending budgets resulted in sluggish demand. Sales of consumer products outperformed those of investment and intermediate goods. External demand continued to grow, but at a slightly slower pace. Overall, demand from overseas markets was stable.

"Employment remained steady. The sector's labor market shrank for the 11th straight month in July, but the magnitude of contraction was minimal, indicating the number of companies increasing headcount was roughly equal to those reducing it.

"The backlogs of work for consumer goods manufacturers surpassed those of peers providing investment and intermediate goods. In July, the manufacturing sector's overall backlogs of work expanded for the fifth straight month.

"Price levels were under pressure. An increase in prices for raw materials pushed up input costs moderately, keeping the gauge in expansionary territory for the fourth consecutive month. Output prices, however, decreased amid intensified market competition and sales pressure, with the corresponding gauge in contractionary territory for the sixth time in the past seven months.

"Supplier logistics were delayed, with delivery times extended for the second straight month in July and lengthened compared to the previous month. Manufacturers' purchased items fell for the first time in nine months amid weak demand, bringing down inventories of raw materials accordingly. Meanwhile, inventories of finished goods ticked up.

"Businesses remained optimistic. Some surveyed companies expressed confidence that the release of new products would drive up sales. The gauge for future output expectations rebounded in July, but was still below its historical average, reflecting limited market optimism.

"Overall, the manufacturing sector largely stabilized in July. Supply expanded slightly, while domestic demand declined and external demand was steady. The reduction in business purchases was coupled with decreases in raw material stocks. The job market contraction was steady. Price levels faced pressure while market optimism improved slightly.

"The Third Plenum of the 20th Central Committee of the Communist Party outlined a strategic roadmap to further deepen reform comprehensively and advance Chinese modernization, providing direction for high-quality development of the economy in the future.

"Having said that, the latest data show that the real GDP growth in the second quarter slowed to 4.7% year-on-year. After achieving a good start in the first quarter, the growth rate in the second quarter was significantly lower than market expectations, making the annual growth target of around 5% challenging.

"The most prominent issues are still insufficient effective domestic demand and weak market optimism. Therefore, policy efforts should focus on stabilizing growth, improving employment, safeguarding people's livelihoods, intensifying policy stimulus, ensuring effective implementation of previous policies, and unleashing market vitality."

Air Passenger Market Analysis

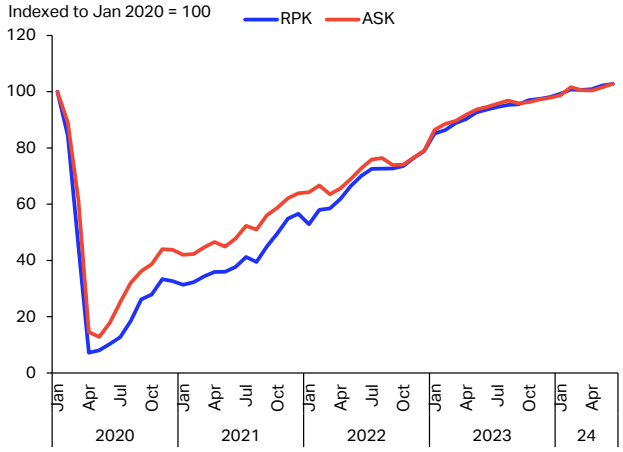
June 2024

Milder passenger demand growth along with near-all-times levels

- Industry total Revenue Passenger-Kilometer (RPK) in June grew 9.1% year-on-year (YoY), versus 8.5% YoY growth in Available Seat-Kilometer (ASK). Passenger load factor (PLF) outgrew the previous year's value, indicating stronger demand for air travel in June.
- Domestic traffic for the industry maintained its growth trend, with 4.3% YoY. Brazil led the pack with a 7.6% annual increase. Japan's RPK contracted for the third month, albeit the negative growth moderated.
- Industry international passenger traffic in June marked 12.3% YoY, gliding towards the industry's long-term average growth levels. Most regions maintained double-digit growth.
- Months ahead of air travel demand look milder compared to the previous year. Ticket sales for both domestic and international travel decelerated vis-à-vis the previous month's figures, with a contraction of 0.9% for the former.

Industry passenger traffic increases while moderating

Chart 1 – Global RPK and ASK, Seasonally Adjusted, Indexed to Jan 2020 = 100

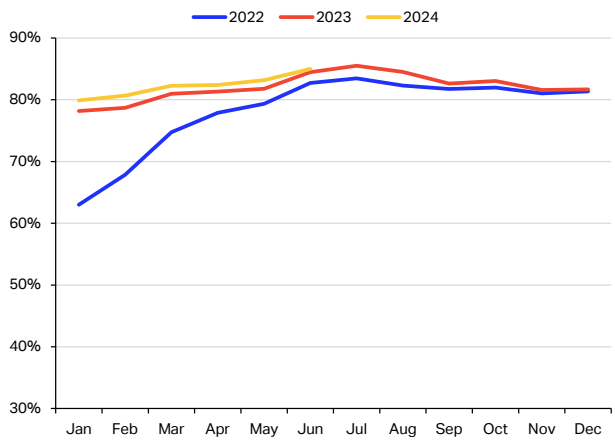


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Commercial air passenger traffic for the industry, measured in Revenue Passenger-Kilometers (RPK), remained on its steady growth trend in June 2024, decelerating only mildly from the previous month. Likewise, levels continued to soar above previous months. Yearly growth stood at 9.1% while 0.6% in Month of Month (MoM) terms, in seasonally adjusted terms (**Chart 1**).

The trend remained positive, with respect to the supply of seats, measured in Available Seat-Kilometers (ASK). Global ASK increased by 8.5% year-on-year (YoY). RPK expansion vastly outpaced ASK's, resulting in an average load factor (PLF) of 85% for the industry. Moreover, June 2024's PLF resulted 0.5 ppt above the previous year (**Chart 2**).

Chart 2 – Industry PLF, %share of ASK



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

The global passenger load factor is consistently above the levels measured in previous years, hinting at higher demand for air travel. In year-to-date terms, PLF stood 1.3 ppt above the previous year's.

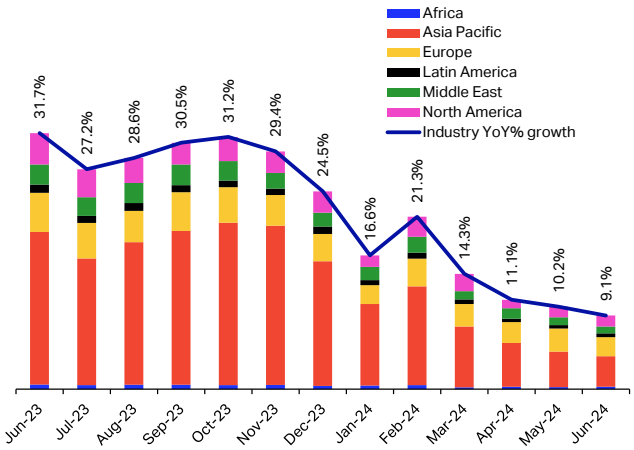
Asia Pacific airlines continue to be the main contributors to the industry's traffic growth in June, as observed in the past years. Growth rates are decreasing across the industry as the pandemic and recovery periods give way to more conservative figures (**Chart 3**).

Air passenger market in detail - June 2024

	World share [1]	June 2024 (% year-on-year)				June 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**9.1%**	**8.5%**	**0.5%**	**85.0%**	**13.4%**	**11.6%**	**1.3%**	**82.3%**
International	*60.1%*	12.3%	12.7%	-0.3%	85.0%	17.4%	17.2%	0.1%	81.9%
Domestic	*39.9%*	4.3%	2.1%	1.7%	85.0%	7.4%	3.6%	3.0%	83.0%

[1] % of industry RPKs in 2023

Chart 3 – Regional contribution to industry annual total RPK growth

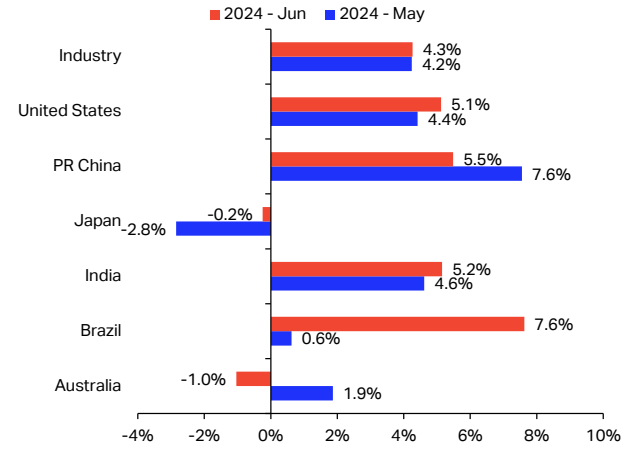


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Particularly, for the Asia Pacific the transition is starker due to traffic surges from low levels in 2023, having a knock-on effect on the industry total passenger traffic growth due to the region's weight in the industry-wide figures (**Chart 3**).

Brazil & PR China lead domestic traffic growth

Chart 4 – Domestic RPK growth by market, YoY%



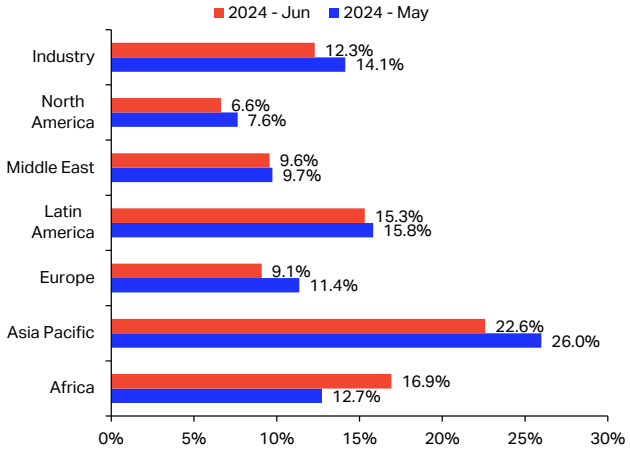
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Industry total domestic RPK rose 4.3% YoY in June, a figure nearly identical to the previous month's value, displaying a return to the stability and consistency of single-digit growth observed in the pre-pandemic period (**Chart 4**). Moreover, levels continue to reach all-time highs.

Passenger traffic in Brazil picked up significantly from May, reaching 7.6% YoY in June. Furthermore, RPK levels have been on an on upward trend since April of the current year. Last month, they have outpaced those of recent years in the same month. The beginning of the summer holidays in PR China, a consequential country for the industry, was met with an increase in air travel demand marked by a 5.5% YoY RPK. Furthermore, air traffic continues to increase without any signs of slowing down. The US and India's domestic traffics in June maintained annual growths of 5.1% and 5.2% respectively, while pushing their respective RPK levels to ever higher values. Passengers demand for Australia and Japan, in RPK YoY terms, both contracted versus last year, respectively -1.0% and -0.2%.

International traffic growth remain strong, as do levels of traffic

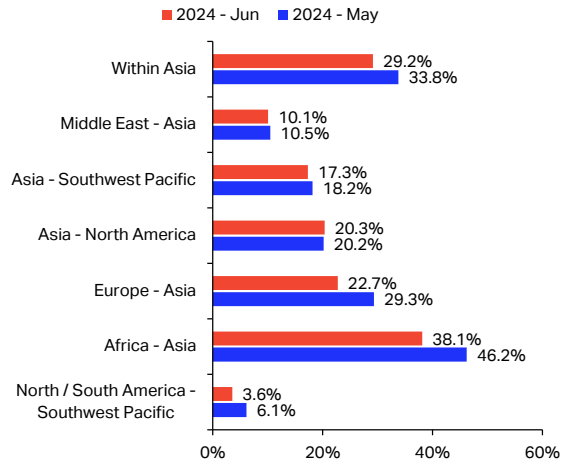
Chart 5 – International RPK growth by airline region of registration, YoY%



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

International passenger traffic in June, the primary driver of industry-wide growth, grew by 12.3% YoY, continuing a gliding towards the industry's long-term average (**Chart 5**). All regions achieved growth rates in the double digits, save for North America and the Middle East, concurrently all markets saw a deceleration in growth versus their respective May's value, expect for Middle East and Africa. The region Asia Pacific remains the one with the highest growth at 22.6%, followed by Africa and Latin America. RPK levels in June 2024 for all regions keep recording all-time highs, save for Asia Pacific, still recovering its pre-pandemic values. Overall, international travel demand is strong and keeps showing promise for the future.

Chart 6 – International RPK, YoY% – Major route areas from and to Asia

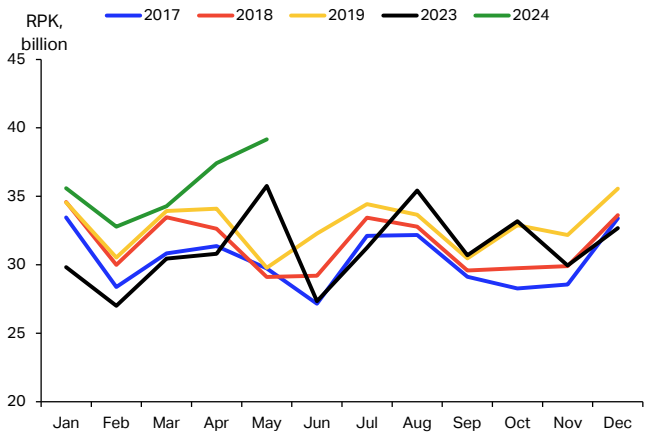


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Asia routes in June maintained double-digit growths and experienced an increase in seat demand for all route pairs, save for Asia - Middle East **(Chart 6).** Africa-Asia maintained the highest YoY growth in June with 38.1%, followed by international traffic within Asia at 29.2%. The route Asia - Middle East marked 10.1% YoY, still the lowest YoY figure among the route-pairs however, this route-pair demand remains the third most important for Asia in terms of RPK, after Europe and Within Asia.

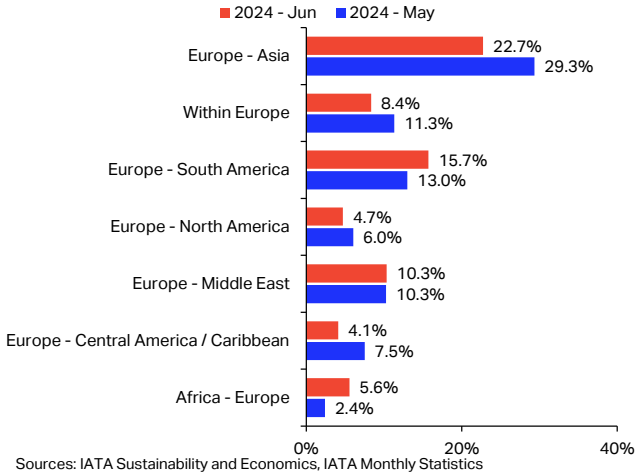
Asia - Middle East link still strong

Chart 7 – International RPK for route pair Asia - Middle East



Asia's international RPK levels, a measure to gauge passengers' demand, as origin maintain an upward trend, although most routes have not regained 2019's values in the same month as of June. The route pair Asia – Middle East outpaced 2019 levels from the start of 2024 nevertheless, last month RPK dipped slightly below June 2019's value (**Chart 7**). The reversion materialised in the run-up to the Olympics, which are taking place in July in Paris, France. Simultaneously, passenger demand for region pair Europe-Asia in June became the second most in demand route-pair, behind within Asia, while Asia - Middle East took third place. Given the approaching start of the Olympics in Paris, this is likely a key driver for the changes in demand pattern.

Chart 8 – International RPK, YoY% **–** Major route areas from and to Europe

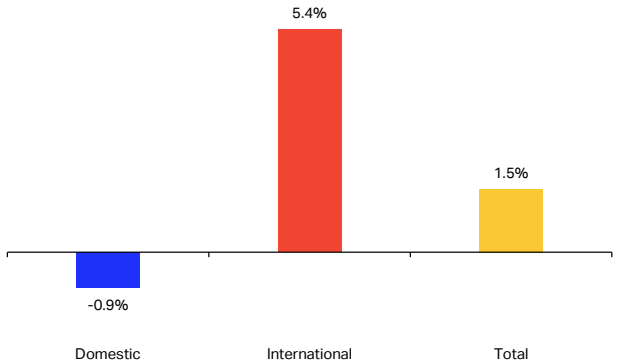


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Air travel from Europe marked in June another optimistic picture for international RPK, save for Europe – Asia, the only pair not to have surpassed pre-Covid traffic levels. Route-pair Europe - Middle East continues to defy previously seen seasonal patterns with demand being on a solid upward trend. Growth YoY decreased for all route pairs but Europe – South America and Europe – Middle East. Growths spanned from 22.7%, for Europe - Asia, to 4.1%, for route Europe - Central America. Second and third were routes Europe - South America and Europe - Middle East, respectively at 15.7% and 10.3% (**Chart 8**).

Cooling demand for air travel during industry peak-period

Chart 9 – Ticket sales, made in June – July for travel in July – August, YoY%



Sources: IATA Sustainability and Economics, DDS

The trip bookings made in June and July for travel during July and August suggest that air traffic and demand in the domestic segment have peaked the year before. In contrast, the international segment is expected to maintain a positive trend. Domestic sales contracted 0.9% YoY and international sales went up by 5.4%, for a total increase of 1.5% for the industry. A seemingly lukewarm picture for global industry during the peak period although a likely explanation is a return to pre-pandemic levels of growth. (**Chart 9**).

Air passenger market in detail - June 2024

	World share [1]	June 2024 (% year-on-year)				June 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**9.1%**	**8.5%**	**0.5%**	**85.0%**	**13.4%**	**11.6%**	**1.3%**	**82.3%**
Africa	*2.1%*	16.2%	5.8%	6.9%	77.1%	15.9%	13.4%	1.6%	73.8%
Asia Pacific	*31.7%*	12.5%	9.4%	2.3%	82.9%	22.4%	16.9%	3.7%	82.6%
Europe	*27.1%*	8.1%	8.4%	-0.2%	87.7%	10.1%	9.9%	0.1%	82.4%
Latin America	*5.5%*	9.1%	7.3%	1.4%	84.2%	9.6%	7.3%	1.7%	83.4%
Middle East	*9.4%*	9.9%	9.5%	0.3%	79.5%	13.3%	12.4%	0.6%	79.6%
North America	*24.2%*	5.4%	7.3%	-1.6%	87.6%	6.4%	7.0%	-0.5%	83.6%
International	***60.1%***	**12.3%**	**12.7%**	**-0.3%**	**85.0%**	**17.4%**	**17.2%**	**0.1%**	**81.9%**
Africa	*1.8%*	16.9%	5.8%	7.4%	77.0%	15.4%	12.4%	1.9%	73.2%
Asia Pacific	*14.7%*	22.6%	22.9%	-0.2%	83.0%	35.4%	34.7%	0.4%	83.6%
Europe	*23.6%*	9.1%	9.8%	-0.6%	87.4%	11.0%	11.1%	0.0%	81.6%
Latin America	*2.7%*	15.3%	15.6%	-0.2%	85.1%	17.0%	15.3%	1.2%	84.8%
Middle East	*9.1%*	9.6%	9.4%	0.1%	79.7%	13.2%	12.6%	0.4%	79.7%
North America	*8.1%*	6.6%	8.6%	-1.6%	88.7%	10.3%	12.2%	-1.5%	82.8%
Domestic	***39.9%***	**4.3%**	**2.1%**	**1.7%**	**85.0%**	**7.4%**	**3.6%**	**3.0%**	**83.0%**
Dom. Australia	*0.8%*	-1.0%	-1.2%	0.2%	81.0%	5.3%	4.7%	0.4%	77.6%
Domestic Brazil	*1.2%*	7.6%	3.2%	3.4%	82.3%	3.1%	1.8%	1.1%	80.0%
Dom. China P.R.	*11.2%*	5.5%	-2.0%	5.9%	83.0%	16.1%	4.9%	7.9%	82.0%
Domestic India	*1.8%*	5.2%	9.6%	-3.6%	87.1%	4.1%	4.7%	-0.5%	87.7%
Domestic Japan	*1.1%*	-0.2%	-0.2%	-0.1%	73.1%	1.2%	-1.1%	1.7%	73.9%
Domestic US	*15.4%*	5.1%	7.1%	-1.7%	86.8%	4.7%	4.8%	-0.1%	83.7%

[1]% of industry RPKs in 2023

Note: the six domestic passenger markets for which broken-down data are available account for approximately 31.4% of global total RPKs and 78.8% of total domestic RPKs

Note: The total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

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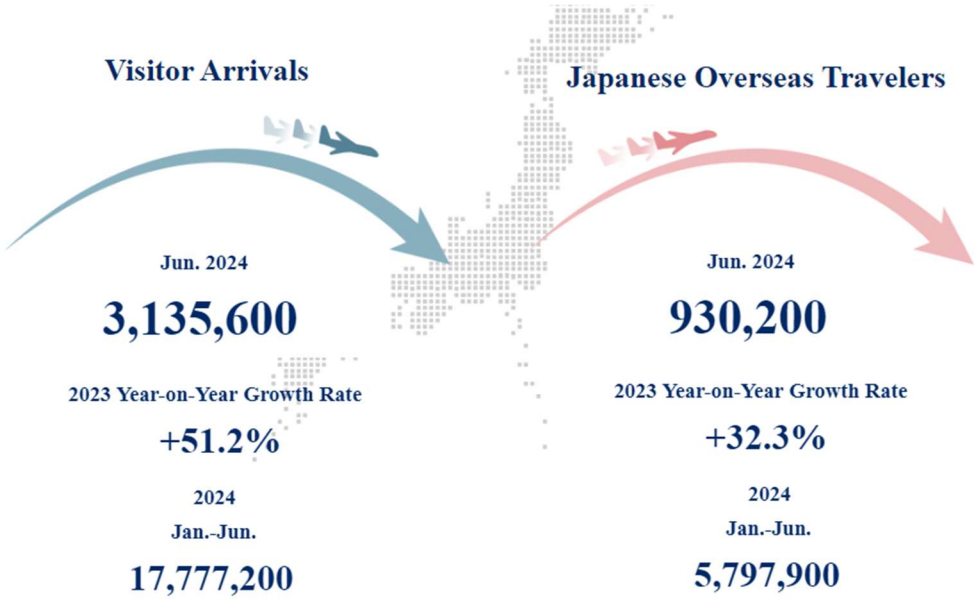
31 July 2024

https://statistics.jnto.go.jp/en/graph/#graph--latest--figures



2024 Visitor Arrivals to Japan and Japanese Overseas Travelers by Month

	Visitor Arrivals		Growth Rate(%)		Japanese Overseas Travelers		Growth Rate(%)
	2023	2024	2024		2023	2024	2024
Jan.	1,497,472 *	2,688,478 *	79.5 *	Jan.	443,105 *	838,581 *	89.3 *
Feb.	1,475,455 *	2,788,224 *	89.0 *	Feb.	537,705 *	978,884 *	82.0 *
Mar.	1,817,616 *	3,081,781 *	69.6 *	Mar.	694,292 *	1,219,789 *	75.7 *
Apr.	1,949,236 *	3,043,003 *	56.1 *	Apr.	560,183 *	888,767 *	58.7 *
May	1,899,176 *	3,040,100 **	60.1 **	May	675,603 *	941,710 *	39.4 *
Jun.	2,073,441 *	3,135,600 **	51.2 **	Jun.	703,259 *	930,200 **	32.3 **
Jul.	2,320,694 *			Jul.	891,615 *		
Aug.	2,157,190 *			Aug.	1,200,930 *		
Sep.	2,184,442 *			Sep.	1,004,730 *		
Oct.	2,516,623 *			Oct.	937,715 *		
Nov.	2,440,890 *			Nov.	1,027,110 *		
Dec.	2,734,115 *			Dec.	947,911 *		
Jan.-Jun.	10,712,396 *	17,777,200 **	65.9 **	Jan.-Jun.	3,614,147 *	5,797,900 **	60.4 **

Air Passenger Market Analysis

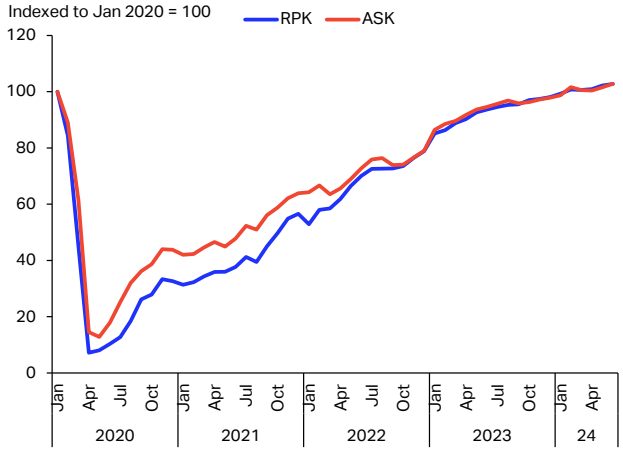
June 2024

Milder passenger demand growth along with near-all-times levels

- Industry total Revenue Passenger-Kilometer (RPK) in June grew 9.1% year-on-year (YoY), versus 8.5% YoY growth in Available Seat-Kilometer (ASK). Passenger load factor (PLF) outgrew the previous year's value, indicating stronger demand for air travel in June.
- Domestic traffic for the industry maintained its growth trend, with 4.3% YoY. Brazil led the pack with a 7.6% annual increase. Japan's RPK contracted for the third month, albeit the negative growth moderated.
- Industry international passenger traffic in June marked 12.3% YoY, gliding towards the industry's long-term average growth levels. Most regions maintained double-digit growth.
- Months ahead of air travel demand look milder compared to the previous year. Ticket sales for both domestic and international travel decelerated vis-à-vis the previous month's figures, with a contraction of 0.9% for the former.

Industry passenger traffic increases while moderating

Chart 1 – Global RPK and ASK, Seasonally Adjusted, Indexed to Jan 2020 = 100

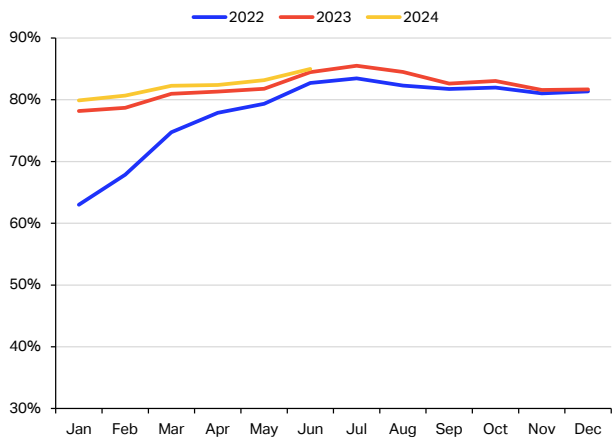


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Commercial air passenger traffic for the industry, measured in Revenue Passenger-Kilometers (RPK), remained on its steady growth trend in June 2024, decelerating only mildly from the previous month. Likewise, levels continued to soar above previous months. Yearly growth stood at 9.1% while 0.6% in Month of Month (MoM) terms, in seasonally adjusted terms (**Chart 1**).

The trend remained positive, with respect to the supply of seats, measured in Available Seat-Kilometers (ASK). Global ASK increased by 8.5% year-on-year (YoY). RPK expansion vastly outpaced ASK's, resulting in an average load factor (PLF) of 85% for the industry. Moreover, June 2024's PLF resulted 0.5 ppt above the previous year (**Chart 2**).

Chart 2 – Industry PLF, %share of ASK



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

The global passenger load factor is consistently above the levels measured in previous years, hinting at higher demand for air travel. In year-to-date terms, PLF stood 1.3 ppt above the previous year's.

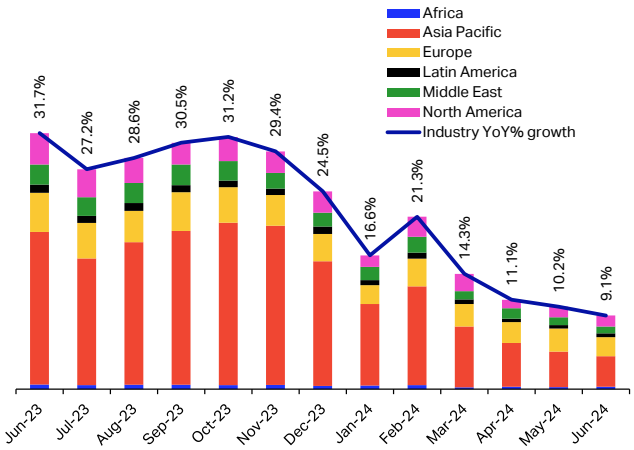
Asia Pacific airlines continue to be the main contributors to the industry's traffic growth in June, as observed in the past years. Growth rates are decreasing across the industry as the pandemic and recovery periods give way to more conservative figures (**Chart 3**).

Air passenger market in detail - June 2024

	World share [1]	June 2024 (% year-on-year)				June 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**9.1%**	**8.5%**	**0.5%**	**85.0%**	**13.4%**	**11.6%**	**1.3%**	**82.3%**
International	*60.1%*	12.3%	12.7%	-0.3%	85.0%	17.4%	17.2%	0.1%	81.9%
Domestic	*39.9%*	4.3%	2.1%	1.7%	85.0%	7.4%	3.6%	3.0%	83.0%

[1] % of industry RPKs in 2023

Chart 3 – Regional contribution to industry annual total RPK growth

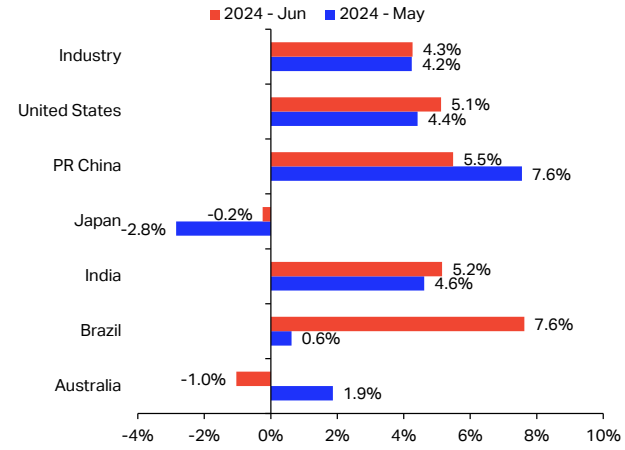


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Particularly, for the Asia Pacific the transition is starker due to traffic surges from low levels in 2023, having a knock-on effect on the industry total passenger traffic growth due to the region's weight in the industry-wide figures (**Chart 3**).

Brazil & PR China lead domestic traffic growth

Chart 4 – Domestic RPK growth by market, YoY%



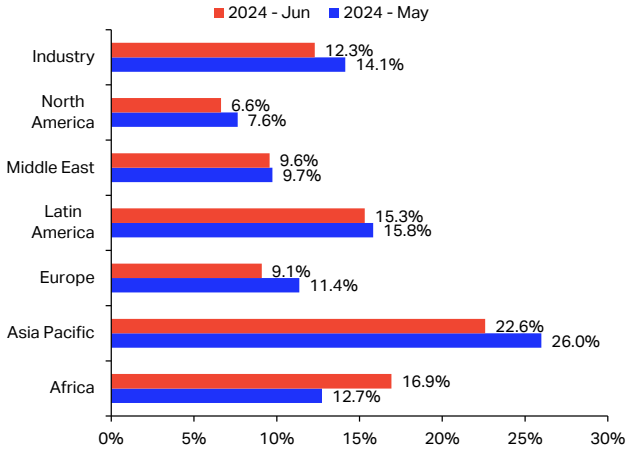
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Industry total domestic RPK rose 4.3% YoY in June, a figure nearly identical to the previous month's value, displaying a return to the stability and consistency of single-digit growth observed in the pre-pandemic period (**Chart 4**). Moreover, levels continue to reach all-time highs.

Passenger traffic in Brazil picked up significantly from May, reaching 7.6% YoY in June. Furthermore, RPK levels have been on an on upward trend since April of the current year. Last month, they have outpaced those of recent years in the same month. The beginning of the summer holidays in PR China, a consequential country for the industry, was met with an increase in air travel demand marked by a 5.5% YoY RPK. Furthermore, air traffic continues to increase without any signs of slowing down. The US and India's domestic traffics in June maintained annual growths of 5.1% and 5.2% respectively, while pushing their respective RPK levels to ever higher values. Passengers demand for Australia and Japan, in RPK YoY terms, both contracted versus last year, respectively -1.0% and -0.2%.

International traffic growth remain strong, as do levels of traffic

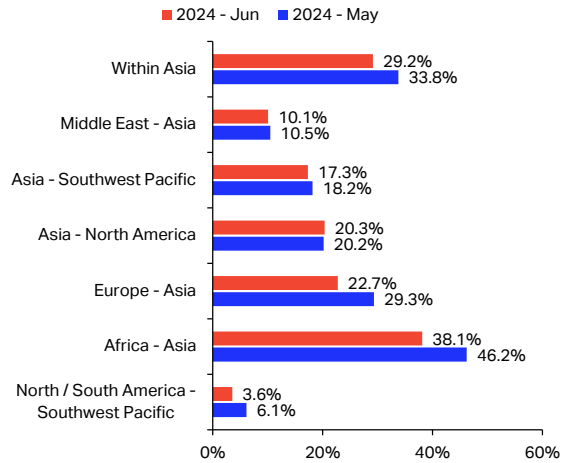
Chart 5 – International RPK growth by airline region of registration, YoY%



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

International passenger traffic in June, the primary driver of industry-wide growth, grew by 12.3% YoY, continuing a gliding towards the industry's long-term average (**Chart 5**). All regions achieved growth rates in the double digits, save for North America and the Middle East, concurrently all markets saw a deceleration in growth versus their respective May's value, expect for Middle East and Africa. The region Asia Pacific remains the one with the highest growth at 22.6%, followed by Africa and Latin America. RPK levels in June 2024 for all regions keep recording all-time highs, save for Asia Pacific, still recovering its pre-pandemic values. Overall, international travel demand is strong and keeps showing promise for the future.

Chart 6 – International RPK, YoY% – Major route areas from and to Asia

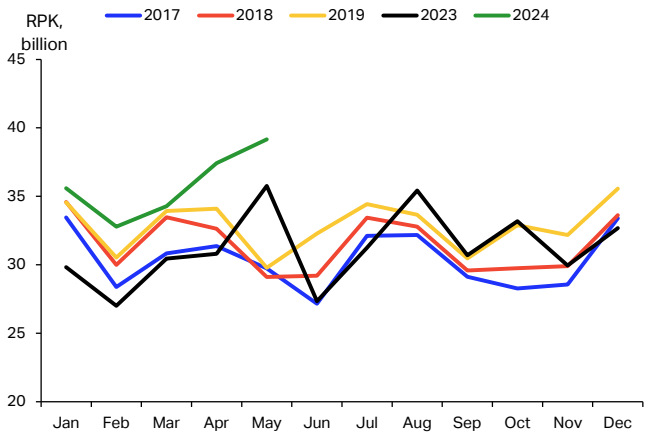


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Asia routes in June maintained double-digit growths and experienced an increase in seat demand for all route pairs, save for Asia - Middle East **(Chart 6).** Africa-Asia maintained the highest YoY growth in June with 38.1%, followed by international traffic within Asia at 29.2%. The route Asia - Middle East marked 10.1% YoY, still the lowest YoY figure among the route-pairs however, this route-pair demand remains the third most important for Asia in terms of RPK, after Europe and Within Asia.

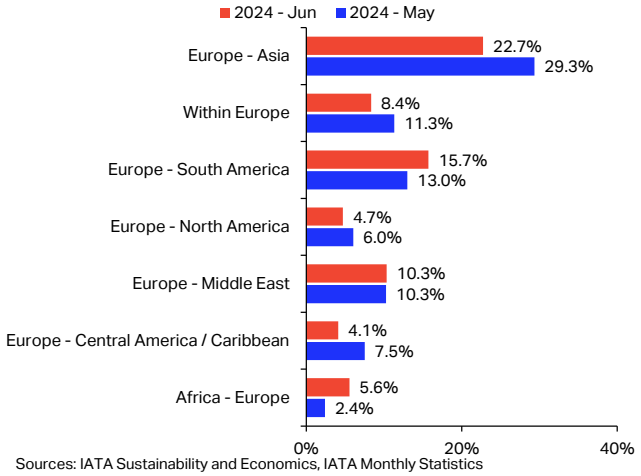
Asia - Middle East link still strong

Chart 7 – International RPK for route pair Asia - Middle East



Asia's international RPK levels, a measure to gauge passengers' demand, as origin maintain an upward trend, although most routes have not regained 2019's values in the same month as of June. The route pair Asia – Middle East outpaced 2019 levels from the start of 2024 nevertheless, last month RPK dipped slightly below June 2019's value (**Chart 7**). The reversion materialised in the run-up to the Olympics, which are taking place in July in Paris, France. Simultaneously, passenger demand for region pair Europe-Asia in June became the second most in demand route-pair, behind within Asia, while Asia - Middle East took third place. Given the approaching start of the Olympics in Paris, this is likely a key driver for the changes in demand pattern.

Chart 8 – International RPK, YoY% **–** Major route areas from and to Europe

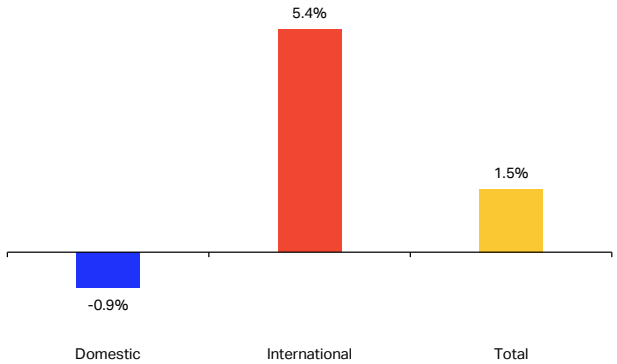


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Air travel from Europe marked in June another optimistic picture for international RPK, save for Europe – Asia, the only pair not to have surpassed pre-Covid traffic levels. Route-pair Europe - Middle East continues to defy previously seen seasonal patterns with demand being on a solid upward trend. Growth YoY decreased for all route pairs but Europe – South America and Europe – Middle East. Growths spanned from 22.7%, for Europe - Asia, to 4.1%, for route Europe - Central America. Second and third were routes Europe - South America and Europe - Middle East, respectively at 15.7% and 10.3% (**Chart 8**).

Cooling demand for air travel during industry peak-period

Chart 9 – Ticket sales, made in June – July for travel in July – August, YoY%



Sources: IATA Sustainability and Economics, DDS

The trip bookings made in June and July for travel during July and August suggest that air traffic and demand in the domestic segment have peaked the year before. In contrast, the international segment is expected to maintain a positive trend. Domestic sales contracted 0.9% YoY and international sales went up by 5.4%, for a total increase of 1.5% for the industry. A seemingly lukewarm picture for global industry during the peak period although a likely explanation is a return to pre-pandemic levels of growth. (**Chart 9**).

Air passenger market in detail - June 2024

	World share [1]	June 2024 (% year-on-year)				June 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**9.1%**	**8.5%**	**0.5%**	**85.0%**	**13.4%**	**11.6%**	**1.3%**	**82.3%**
Africa	*2.1%*	16.2%	5.8%	6.9%	77.1%	15.9%	13.4%	1.6%	73.8%
Asia Pacific	*31.7%*	12.5%	9.4%	2.3%	82.9%	22.4%	16.9%	3.7%	82.6%
Europe	*27.1%*	8.1%	8.4%	-0.2%	87.7%	10.1%	9.9%	0.1%	82.4%
Latin America	*5.5%*	9.1%	7.3%	1.4%	84.2%	9.6%	7.3%	1.7%	83.4%
Middle East	*9.4%*	9.9%	9.5%	0.3%	79.5%	13.3%	12.4%	0.6%	79.6%
North America	*24.2%*	5.4%	7.3%	-1.6%	87.6%	6.4%	7.0%	-0.5%	83.6%
International	***60.1%***	**12.3%**	**12.7%**	**-0.3%**	**85.0%**	**17.4%**	**17.2%**	**0.1%**	**81.9%**
Africa	*1.8%*	16.9%	5.8%	7.4%	77.0%	15.4%	12.4%	1.9%	73.2%
Asia Pacific	*14.7%*	22.6%	22.9%	-0.2%	83.0%	35.4%	34.7%	0.4%	83.6%
Europe	*23.6%*	9.1%	9.8%	-0.6%	87.4%	11.0%	11.1%	0.0%	81.6%
Latin America	*2.7%*	15.3%	15.6%	-0.2%	85.1%	17.0%	15.3%	1.2%	84.8%
Middle East	*9.1%*	9.6%	9.4%	0.1%	79.7%	13.2%	12.6%	0.4%	79.7%
North America	*8.1%*	6.6%	8.6%	-1.6%	88.7%	10.3%	12.2%	-1.5%	82.8%
Domestic	***39.9%***	**4.3%**	**2.1%**	**1.7%**	**85.0%**	**7.4%**	**3.6%**	**3.0%**	**83.0%**
Dom. Australia	*0.8%*	-1.0%	-1.2%	0.2%	81.0%	5.3%	4.7%	0.4%	77.6%
Domestic Brazil	*1.2%*	7.6%	3.2%	3.4%	82.3%	3.1%	1.8%	1.1%	80.0%
Dom. China P.R.	*11.2%*	5.5%	-2.0%	5.9%	83.0%	16.1%	4.9%	7.9%	82.0%
Domestic India	*1.8%*	5.2%	9.6%	-3.6%	87.1%	4.1%	4.7%	-0.5%	87.7%
Domestic Japan	*1.1%*	-0.2%	-0.2%	-0.1%	73.1%	1.2%	-1.1%	1.7%	73.9%
Domestic US	*15.4%*	5.1%	7.1%	-1.7%	86.8%	4.7%	4.8%	-0.1%	83.7%

[1]% of industry RPKs in 2023

Note: the six domestic passenger markets for which broken-down data are available account for approximately 31.4% of global total RPKs and 78.8% of total domestic RPKs

Note: The total industry and regional growth rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in which the carrier is registered; it should not be considered as regional traffic. Historical statistics are subject to revision.

IATA Sustainability & Economics
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31 July 2024

In combination with our announced asset divestitures that now total $2.6 billion, strong year-to-date EBITDA performance, and capital expenditures that are trending to the low end of our $8 billion to $8.5 billion outlook, we are well on track to reach our 2024 year-end debt to EBITDA target of 4.75 times.

We're proud to announce that we've entered into Canada's largest-ever indigenous equity ownership agreement that will enable ownership of the NGTL and foothill systems. This historic agreement is made possible by an equity loan guarantee provided by the Alberta Indigenous Opportunities Corporation in support of a newly formed indigenous-owned investment partnership. The transaction creates a pathway for equity participation ownership that delivers long-term, low risk, and stable revenue for local indigenous communities, creating a lasting and meaningful legacy.

We thank all rights holders and stakeholders involved in making this agreement possible. It is an example of what's achievable when Indigenous communities, governments, and industry come together. Never have I seen such strong prospects for North American natural gas demand growth. We are seeing natural gas demand reach record highs and this is expected to grow by nearly 40 bcf per day by 2035.

The outlook for our business has never been stronger, our assets are strategically positioned To meet growth and demand underpinned by five key pillars that give us visibility to attractive in corridor opportunities through the end of the decade. Based on capacity projects under various stages of development, we have line of sight to 5 plus bcf per day of nextwave LNG growth that will feed exports from Canada, the US, and Mexico, and we are the only company to have major assets in all three markets. In the US, we are delivering approximately 30% of LNG feed gas. In Mexico, we expect to see the first LNG cargo this month from Altamira's liquefaction facility, and in Canada, CGL remains ready to deliver gas when called for. Second, we're seeing continued demand and reliability requirements from our utility customers. We have one of the largest natural gas storage systems in North America, and that further bolsters energy reliability across the continent. Third, power generation demand is expected to increase significantly, driven by wide-scale electrification, coal-fired retirements, as well as emerging power needs from AI and data centers. As an example, we see around 300 data centers at various stages of development, 60% of which have proposed locations within 15 miles of our systems, namely Columbia. Additionally, within 15 miles of our Columbia and ANR systems, we estimate approximately 9 gigawatts of coal-fired generation is set to retire by 2031. From a capacity project standpoint, these drivers represent approximately an additional 5 bcf per day of high-quality opportunity. Fourth, our assets strategically connect the lowest-cost supply to the highest-value markets. These basins continue to see significant growth potential and our customers continue to look for additional connectivity. And finally, we have approximately $7.5 billion in our secured capital table for recoverable maintenance and modernization projects that support the safe and reliable delivery of record volumes. Our role is to execute the opportunities that maximize risk-adjusted returns while adhering to our net capital expenditure limit of $6 billion to $7 billion per year to create incremental value for our shareholders. In Mexico, We achieved critical milestones in the construction of Southeast Gateway and remain on track for commercial in service by mid-2025, at our expected cost of

US $4.5 billion. Progress on the offshore pipe installation has reached over 98% completion. The deepwater offshore section is now installed and there is approximately 3 kilometers shallow water installation remaining. We anticipate the shallow water installation to be complete in the third quarter. Onshore, we have completed construction at all three landfall sites and construction of the onshore facilities and final pipe, as well as, the tie-in activities continue to progress on schedule. To further illustrate the continued demand for natural gas, again, we saw continued high utilization of our systems. You can see on this slide that our NGTL system in Canada, our US natural gas pipelines, and our Mexico pipelines all set new all-time records for receipt or delivery volumes, with several daily records achieved in July. We reached unanimous support from customers for a five-year negotiated revenue requirement settlement on NGTL that extends from 2025 to 2029. This continues our 20 plus year track record of collaboratively working with our customers to address evolving needs while maximizing the value of our assets. The settlement is expected to result in approximately $150 million to $200 million per year of incremental EBITDA through increased depreciation rates and incentive mechanisms. The settlement supports competitive tolls for our customers and it incentivizes emissions reductions. The settlement also enables an investment framework to allocate approximately $3.3 billion toward a new multi-year growth program that will serve continued growth from the western canadian basin. The projects comprising the growth plan have targeted in service dates between 2027 and 2030, aligning with our net annual capital expenditure limit in our power segment, Bruce Power continues to reliably provide emissionless, low-cost electricity in Ontario. We achieved 78% availability in the second quarter, taking into account planned outages on four of our units, units eight Through five. The availability outlook for 2024 remains in the low 90% range now that all planned maintenance is complete for 2024. Unit 3 MCR continues to progress on plan for both cost and schedule, and the unit four MCR is expected to begin in early 2025. In the liquids business, keystone continued its strong operational performance, achieving 94% reliability in the second quarter. At our annual and special meeting in June, we received strong support from our shareholders to spin off the liquids pipelines business with voted common shares at 97% in favor of the spin. We continue to believe that spinning off South Bow will allow both companies to execute their focused strategies while maximizing the value of their respective assets. And now I'll turn the call over to Sean.

Unidentified Speaker

Thanks, Francois. Good morning everyone. I am pleased to report that TC's comparable EBITDA grew by 9% this quarter. I'll touch on the growth highlights with the chart on the left. Canada gas saw increases primarily from system expansions on NGTL and foothills. US Gas placed a number of new pipeline and modernization projects into service and they signed new contracts on a ANR and Great Lakes.

In Mexico, the main drivers were a new lateral section of Villa de Reyes going into service last September and higher equity earnings at Cerda Tejas, primarily from the strengthening dollar over the peso power and energy solutions, saw higher contributions from us marketing and canadian power which combined to offset reduced contributions from Bruce Power which had units in planned outages last quarter as Francois mentioned.

Our liquids segment was lower in the second quarter from the anticipated impacts of additional WCSB egress[ph] coming online and lower contributions from liquid marketing activities, some of which we expect to reverse later in the year. Moving to the chart on the right, our comparable earnings of $978 million were slightly lower than the second quarter of 2023. There's some variances here worth spending a moment on.

AFUDC was higher due to the increased capital spending on Southeast Gateway. The FX delta was driven by a peso that strengthened by 5% in the second quarter of 23, which was an FX derivative gain for us, but then pivoted sharply to weaken by 10% last quarter, creating an FX derivative loss. As a reminder, we do hedge our FX which flows through this line item.

For an overall net income perspective, we're generally insulated from fluctuations of the us peso and dollar movement. Income taxes decreased by $59 million in the quarter in large part

Sean O' Donnell

Part due to the peso FX Delta I just mentioned. Lastly, this quarter's deduction for noncontrolling interests increased primarily due to the sale of the 40% interest in Columbia that closed in the fourth quarter last year. To conclude our earnings update, our 2024 earnings outlook is consistent with the outlook in our 2023 annual report and that our earnings per common share are expected to be lower this year than in 2023, driven largely by the NCI adjustments from our ongoing asset divestiture program.

Turning to page 15 and continuing with our 2024 outlook due to our continued strong performance year to date and positive outlook for the remainder of the year, we are reaffirming our 2024 comparable EBITDA target of this year's growth is driven by the full-year impact of our 2023 project completions and cash flow from our $7 billion worth of projects going into service this year.

A quick reminder is that we continue to include liquids in our aggregate guidance until the spinoff closes and the trend is similar for liquids. Following a very strong first quarter, our liquids performance continues to track its 2024 outlook on the right side of the page, I wanted to echo Francois's comment that we are making meaningful progress on our deleveraging plan and are on track to achieve our 4.75 x leverage target by the end of this year.

Each component of our deleveraging strategy is contributing to our success. Our corporate development team has signed up $2.6 billion of asset sales at very attractive multiples and we're only in July. That pace makes us feel comfortable about our $3 billion program target by year-end.

Our natural gas and power teams are collectively bringing $7 billion of new capacity and associated EBITDA online this year, and our third lever is capex savings which Francois mentioned. Our project delivery organization is tracking towards the low

And then on the incentives, I just wanted to make sure that that 50 million is that additive to the incentive framework that was already in place. So, yes to the first part of your question. The $150 million in increased depreciation was largely baked into our existing plan. And then you could think of the incremental upside as being recovered through the incentive mechanisms.

Now, there's no cap on the incentive dollars. That the mechanism is very similar to what it was last time in that there's two different tiers that will go through. Tier one has a 50 50 sharing, tier two and 80 20 sharing. When we look at things, we think that there's a reasonable expectation that we should be able to generate around $50 million or so of these incentive earnings going forward.

And that would be incremental to plan. Yeah. So is that. Sorry, but that, is that incremental to what you have already been earning?

On this one. Correct. Okay, perfect. Okay, just the final one here. Strategically, Francois, you talked a lot about your payout ratio strategy, and then overall, I think, trying to get that down over time to screen favorably against regulated utilities. So this is really more the earnings payout ratio.

Can you just talk a little bit more about, you know, how are you feeling about that and how you expect to kind of achieve that and possibly over what timeframe?

A - Unidentified Speaker

Of power, which is about enough of power to fuel 77,000 homes, by the way. These 300 new data centers are going to need somewhere around 45 to 50 gigawatts of power to operate. And then if you apply just an average heat rate to that, that's how we get this notion of around 6 to 8 bcf a day of capacity that's going to be needed to serve them.

So in our discussions with various entities, what we're learning is that while power costs represent a relatively small portion of the overall cost to operate a data center, the access to reliable power could be a roadblock towards the timely build-out. Given that we're seeing a shift in siting preferences from regions where big telecom infrastructure is in place to regions where energy and supply infrastructure is in place.

And as an alternative to citing these data centers behind LDCs, we're now seeing a much greater potential for data center operators to seek laterals off of our main line and to use that gas supply to fuel onsite power generation that they would build and or own themselves. So in the US, we tend to build projects at around a 6 to 8 times build multiple, and I would expect that to continue going forward with respect to data center opportunities.

The other part of your question is actually very, very good, actually, in that our best-in-class footprint doesn't limit the opportunity set just to the US. In Canada, there's

around 300 data centers that are in operation today. We could see that load increasing by one to two gigawatts before the end of the decade.

In Mexico, there's about 150 data centers in operation today, most notably in the state of Queretaro. It's ranked 13th in terms of data centers demand usage currently. And two of our pipelines via Duraiya's[ph] and the Thomas on Charlie pipeline serve the state of Queretaro. So there's opportunities for expansions there. So while entities like Google and Amazon and Microsoft are all talking about expansion plans across all three of these geographies, I think the last thing I would leave you with is while data centers are a unique opportunity and we're going to pursue them, our portfolio effect is much more than that, in that we have growth opportunities with respect to the next wave of LNG, with respect to LDC reliability, with respect to growing power generation and electrification, as well as supply access in addition to the data center opportunity.

Q - Unidentified Participant

Got it. Thank you for that. For the second one, I just want to ask, I guess on how you guys are progressing towards those productivity and cost-effectiveness initiatives you guys laid out within the last year.

A - Unidentified Speaker

Yeah, I think you're talking about what we called our focus project, which is around fundamentally changing the way we do our work on safe

Productivity and capital. And what we mentioned to you previously was we set a target of $750 million of synergy savings by 2025. At this point in time, we are well on our way to meeting that goal, having generated somewhere around $410 million of synergies as of last month, and look to get the balance taken down in the next year and potentially maybe come in a little ahead of our schedule there.

Q - Unidentified Participant

Great. Thank you.

Operator

The next question is from Keith Stanley with Wolfe Research. Please go ahead.

Q - Unidentified Participant

Hi, good morning. Curious once, as you're getting towards completion of Southeast Gateway, how you think about growth in Mexico within your $6 billion to $7 billion per year CapEx budget, are there material new opportunities you could pursue in the country, or is it more likely smaller scale opportunities?

A - Francois L. Poirier {BIO 15315625 <GO>}

Thanks for the question, Keith. It's Francois. First and foremost, we're very bullish on the role that Mexico is going to play in north american gas markets, both in terms of

growing demand in the country, but also the potential for LNG exports from Mexico. So that will drive additional investment opportunities for us to consider.

I always believe that it's important for you to be the incumbent that builds the backbone of the infrastructure. That's what we're doing right now with completion of Villa de Reyes as well as Southeast Gateway. And from that comes very attractive, low build, multiple low risk ancillary lateral opportunities that tend to come your way. As the incumbent, we are starting to see a number of those opportunities present themselves.

But as we said, we are also focused on managing our aggregate exposure from Mexico as a percentage of the whole and pro forma for the spin and Southeast gateway going into service, we will be at approximately 15% of consolidated EBITDA. And prior to contemplating any additional investment in the near term, we would need to see some progress in either bringing in a joint venture partner or growing ahead of plan our other franchises, such that the percentage is lowered.

But again, the backdrop, the macro backdrop around demand growth will present us with more investment opportunities in the future, albeit a bit smaller.

Q - Unidentified Participant

Got it. That makes sense. Curious if there's anything notable to update on the coastal gas link litigation. I think there were a couple of settlements that came through. Is that all going according to your expectations?

A - Unidentified Speaker

And any meaningful cash inflows or outflows you're expecting as part of that. Yeah, this is Stan. With respect to CGL, you know, we continue to work on the post-construction reclamation activities, which we should have completed by the end of this year. We did have one settlement with respect to cost recoveries.

We're going to continue to pursue the other. And really, no change in our guidance that at the end of the day, we expect to be in a net recovery position.

Operator

Thank you. Next question is from Robert Cattellier with CIBC Capital Markets. Please go ahead.

Q - Unidentified Participant

Hi. Good morning, everyone, and congratulations on the progress towards your deleveraging goals. Thank you. Follow up questions there. Yeah, just wanted to follow up on how the us $400 million verdict in the Columbia acquisition case impacts your deleveraging plan. And then I'll have a follow up question.

Strategically positioned to meet growing gas demand

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NEXT WAVE LNG
5+ Bcf/d
Unparalleled LNG connectivity across U.S., Canada, and Mexico

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POWER GENERATION
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Electrification, coal retirements and AI/data centers are key growth drivers

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Up to 4 Bcf/d
Connecting the lowest cost supply to the highest value markets

MAINTENANCE & MODERNIZATION
~$7.5 billion[2]
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North American gas demand forecasted to grow nearly 40 Bcf/d[3] 2023-2035

Reliability and dispatchability of natural gas are key drivers behind the growing outlook

U.S. demand to increase with growth across key sectors including LNG exports, exports to Mexico and power generation	**+26** Bcf/d
Demand growth in Canada is largely driven by LNG exports and the industrial sector	**+7** Bcf/d
Power buildout, nearshoring momentum and LNG exports underpin growth across Mexico	**+5** Bcf/d

(1) As of Q2 2024 financial results. Includes sanctioned, under construction and projects in development, based on capacity. Excludes Coastal GasLink phase 1.
(2) Based on secured projects as of Q2 2024 financial results
(3) Source: TC Energy internal forecast

BN 07/01 03:00 *AMAZON LOOKING TO CONNECT NUCLEAR PLANTS TO DATA CENTERS: WSJ
BN 07/01 03:00 *AWS NEARING DEAL WITH CONSTELLATION ENERGY: WSJ
BN 07/01 03:01 *AWS NEARS DEAL WITH CONSTELLATION ENERGY ON POWER SUPPLY: WSJ

Amazon Is Among Tech Giants Looking to Connect Nuclear Plants to Data Centers, Sources Say -- WSJ
2024-07-01 03:00:00.145 GMT

By Jennifer Hiller and Sebastian Herrera

(Wall Street Journal) -- Tech companies scouring the country for electricity supplies have zeroed in on a key target: America's nuclear-power plants.

The owners of roughly a third of U.S. nuclear-power plants are in talks with tech companies to provide electricity to new data centers needed to meet the demands of an artificial-intelligence boom.

Among them, Amazon Web Services is nearing a deal for electricity supplied directly from a nuclear plant on the East Coast with Constellation Energy, the largest owner of U.S. nuclear-power plants, according to people familiar with the matter. In a separate deal in March, the Amazon.com subsidiary purchased a nuclear-powered data center in Pennsylvania for $650 million.

The discussions have the potential to remove stable power generation from the grid while reliability concerns are rising across much of the U.S. and new kinds of electricity users -- including AI, manufacturing and transportation -- are significantly increasing the demand for electricity in pockets of the country.

Nuclear-powered data centers would match the grid's highest-reliability workhorse with a wealthy customer that wants 24-7 carbon-free power, likely speeding the addition of data centers needed in the global AI race.

But instead of adding new green energy to meet their soaring power needs, tech companies would be effectively diverting existing electricity resources. That could raise prices for other customers and hold back emission-cutting goals.

Even if tech companies were to offset nuclear-power deals by funding the addition of renewable energy, experts say the likely result is more reliance on natural gas to replace diverted nuclear power. Natural gas-fired plants produce carbon emissions but, unlike renewables, can provide round-the-clock power and are cheaper and more practical to build than new nuclear plants.

The nuclear-tech marriage is fueling tensions over economic development, grid reliability, cost and climate goals in states including Connecticut, Maryland, New Jersey and Pennsylvania.

Amazon's deal in Pennsylvania set off alarm bells for Patrick Cicero, the state's consumer advocate. Cicero said he is concerned about cost and reliability if "massive consumers of energy kind of get first dibs." It is

unclear if the state currently has the regulatory authority to intervene in such deals, he said.

"Never before could anyone say to a nuclear-power plant, we'll take all the energy you can give us," said Cicero.

"To supplement our wind- and solar-energy projects, which depend on weather conditions to generate energy, we're also exploring new innovations and technologies, and investing in other sources of clean, carbon-free energy," an Amazon spokeswoman said.

A new arrangement

The data center that Amazon purchased in Pennsylvania can receive up to 960 megawatts of electricity, enough to power hundreds of thousands of homes. The acquisition accelerated interest in so-called behind-the-meter deals, in which a large customer receives power directly from a plant.

The relatively new arrangements mean data centers can be built years faster because little to no new grid infrastructure is needed. Data centers could also avoid transmission and distribution charges that make up a large share of utility bills.

The new interest in nuclear power is part of a reversal of fortune for companies that own power plants in competitive power markets. That business has been difficult for two decades following overbuilding in the 1990s. Nuclear plants struggled to compete with wind, solar and natural gas, prompting a wave of closures.

But tech companies willing to pay a premium for nearly uninterrupted, carbon-free power could make good on climate-change pledges while powering AI.

Shares of Vistra, the largest competitive power generator in the U.S., have more than doubled this year. The company has been in talks for behind-the-meter deals at both nuclear and gas plants.

"In this case, the customer has come to us and come to many in the industry and said 'I need as much power as you can make available,'" said Vistra Chief Executive Jim Burke.

Constellation Energy, which owns 14 U.S. nuclear-power plants and produces more than a fifth of the nation's nuclear power, has seen its shares rise more than 70% this year.

Constellation's president and CEO, Joseph Dominguez, said there are still many places, including a swath from Pennsylvania to Illinois, with an oversupply of power. That leaves room for data centers, he said.

Contracts with data centers willing to pay a premium would cover the cost of

re-licensing, he said, extending plant life another 20 years and supporting investments that could boost nuclear-power output.

"If we don't have those things, we're going to lose the nukes again," Dominguez said. "We're going to go back to where we were."

Lots of talks, and controversy

It is too early to know just how much power data centers will need. Estimates range from around 4% of power consumed last year in the U.S. to something between 4.6% and 9% by 2030, according to the Electric Power Research Institute.

In Connecticut, state Sen. Norm Needleman never envisioned taking existing power off the grid when he supported economic incentives for data centers a few years ago. Then a developer proposed connecting a data center to the Millstone nuclear plant.

"If we lose a carbon-free resource, what are we going to replace it with?" asked Needleman, whose bill to require a study of such projects didn't pass this year.

Daniel O'Keefe, commissioner for Connecticut's Department of Economic and Community Development, said the proposal could work if it is done in a thoughtful way. Neighboring states are adding data centers, with needed grid improvements shared by all New England customers, so Connecticut ought to receive some economic benefits, he said.

"Our constituents are paying for these data centers regardless of whether they're inside Connecticut," O'Keefe said.

In New Jersey, Public Service Enterprise Group CEO Ralph LaRossa has said the company has been in talks with data centers, including for direct power sales, which could support New Jersey's economic-development efforts to create an AI hub.

About 40% of the state's power comes from nuclear power, including plants owned by PSEG.

New Jersey customers have spent about $300 million a year during the past six years to help keep its plants operating, plus hundreds of millions before that, said Brian Lipman, director for the New Jersey Division of Rate Counsel.

"What happened to that investment?" asked Lipman.

New Jersey is also targeting 100% clean-energy generation by 2035, which Lipman said would be impossible without nuclear power. PSEG declined to comment.

Energy needs

Many of the negotiations are happening within the PJM Interconnection, the regional transmission organization and electricity market serving Washington, D.C., and 13 states from Virginia to Illinois. It said it would work with both plant and transmission owners, and conduct analyses to avoid reliability issues and other problems.

Last week, utilities American Electric Power and Exelon requested a hearing at the Federal Energy Regulatory Commission about Amazon's deal in Pennsylvania, arguing that as much as $140 million in costs could shift to other customers and that the data center "should not be allowed to operate as a free rider," benefiting from a transmission system others pay for.

Talen Energy, which built the data center and operates the nuclear plant, called the request a "misguided attempt to stifle this innovation."

It is unclear whether and how much data centers located at nuclear plants would need to depend on grid power. Nuclear plants are far more reliable than other kinds of power generation but have outages, too.

Before Amazon purchased the Pennsylvania data center, a Talen nuclear reactor had an outage last fall and the data-center campus had to pull power from the grid, according to people familiar with the incident. The need for grid power was unexpected, and additional system protections have been put in place since then to avoid a repeat, the people said.

Talen and grid operator PJM declined to comment on the incident.

Write to Jennifer Hiller at jennifer.hiller@wsj.com and Sebastian Herrera at sebastian.herrera@wsj.com

(END) Dow Jones Newswires

Please refer to our SEC filings for discussion of these factors. Joining me this morning for opening remarks are Ben Fowke, our Interim President and Chief Executive Officer; Chuck Zebula, our Executive Vice President and Chief Financial Officer; and Peggy Simmons, our Executive Vice President of Utilities. We will take your questions following take your questions following their remarks. I will now turn the call over to Ben.

Benjamin GS Fowke {BIO 5234300 <GO>}

Good morning, and welcome to American Electric Power's second quarter 2024 earnings call. Shortly, Peggy will provide a regulatory update, followed by Chuck, who will review our financial results in more detail. A summary of our second quarter 2024 business highlights can be found on Slide 6 of today's presentation. Before I dive into our results, I'd like to start by welcoming Bill Fehrman to AEP as our new President and CEO, effective August 1st.

Bill brings decades of utility operational leadership, experience, and in-depth knowledge of the energy industry, most recently serving as President and CEO of Century Holdings, and prior to that, President and CEO of Berkshire Hathaway Energy. With Bill's expertise and diverse background, you can anticipate a smooth transition and continuity of strategic direction. Expect more focus on execution, and Bill has the background to do just that, including capturing growth, listening and responding to our regulators and investors, and using innovation to mitigate inflationary pressures. While I will be serving as senior advisor for several months to ensure a smooth transition, it's been an honor to lead AEP as Interim President and CEO, and I'm proud of what the team has accomplished so far this year.

Now, turning to AEP's financial results, today we announced second quarter 2024 operating earnings of $1.25 per share, a $0.12 increase over one year ago. Our operational execution through the first half of the year, combined with our efforts to efficiently manage the business, have put us well on track to achieve our targets. Today, we reaffirm our 2024 full-year operating earnings guidance range from $5.53 to $5.73, and our long-term earnings growth rate of 6% to 7%. Regarding data center load, we have commitments from customers for more than 15 gigawatts of incremental load by the end of this decade, mostly driven by large load opportunities.

To put this in perspective, AEP's system-wide peak load at the end of last year was 35 gigawatts. We continue to work with data center customers to meet their increased demand while ensuring contracts and new initiatives are fair and beneficial for all of our customers. In the fall, we will provide an update on what this large load opportunity means for our capital spend, including generation and transmission investment, and on our plan to responsibly finance this growth initiative. While we certainly encourage innovation when it comes to meeting the energy needs of our customers, data centers included, I want to emphasize that it's critically important that costs associated with these large loads are allocated fairly, and the right investments are made for the long-term success of our grid.

For this reason, we file new data center new data center tariffs in Ohio, and large load tariff modifications in Indiana and West Virginia. And it's the reason why we filed a complaint with FERC related to a co-located load agreement. We will know soon what FERC decides, but this is the rationale we use. Given the co-located load agreement is an active case before FERC, I don't plan on making any further comments.

I'd also like to note that large load impacts are already being felt here in AEP's service territories, primarily Ohio and Texas, as our commercial load grew an impressive 12.4% over the second quarter of last year. Looking ahead, we expect the incremental load I just mentioned to move forward in these states and others, including Indiana. Moving to another example of capital opportunities, PSO announced an agreement at the end of June to purchase a 795 megawatt natural gas generation facility conditioned on regulatory approval. The facility, known as Green Country, is located in Jenks, Oklahoma, and will ensure PSO customers continue to benefit from reliable and affordable resources.

For this resource adequacy driven capital, PSO plans to seek regulatory approval this fall, at which time the economics of this acquisition will be made public. As you know maintaining a strong balance sheet is critical to fund increased capital spend to support our growth initiatives. We will sensibly finance our capital needs and we're open to incremental growth equity and equity-like tools in addition to portfolio optimization. On a similar portfolio note, the sale of AEP on-site partners remains on track to close in the third quarter following FERC approval.

Now let's move on to the federal EPA's coal combustion residual rule, or CCR, which was finalized in the second quarter and expanded the scope of the rule to include inactive impoundments at existing and inactive facilities. We continue to evaluate the applicability of the rule to current and former plant sites and have developed preliminary estimates of compliance costs. While we are working with others and looking at potential legal challenges to the revised rules, as appropriate, we do plan to seek cost recovery through new and or existing regulatory mechanisms. Chuck will have more information on this shortly.

Before I turn it over to Peggy for additional updates, I'd like to thank all of you for your support during my time as AEP's interim CEO It's been a privilege to serve AEP over the past five months and the board and I are confident that Bill is the right person to build on the momentum underway and to lead AEP into its next chapter. On a related note, we are planning an informal meet-and-greet in New York City soon so analyst investors can say hello to Bill in person. We are targeting something in August, so stay tuned for more information coming your way. coming your way in the next couple of days.

Finally, I'm excited about what the future holds for AAP as we execute on our strategic priorities and enhance value for all of our stakeholders. Peggy?

Peggy I Simmons {BIO 17724877 <GO>}

Thanks, Ben, and good morning, everyone. Now let's turn to an update on several of AAP's ongoing regulatory initiatives. We are engaged in our regulatory and legislative areas, continuing to strengthen relationships, including implementation of our investment in more people and resources at the local level.

And as the utility industry is changing, now more than ever, AEP's operating company leaders are staying increasingly engaged with regulators amidst this dynamic environment. Customer bills and affordability remain top of mind for AEP in addition to system reliability and resiliency. We are focused on advancing interest in each of the states we operate, which includes economic development, work across our service territory to bring jobs and create bill headroom from a larger load perspective, and to ultimately achieve the regulatory outcomes that are good for AEP's customers, communities, investors, and employees. We continue to work through regulatory items with a focus on our authorized versus earned ROE gap, which remains flat at 8.9% for the past 12 months as of second quarter 2024.

Turning to some positive rate case development, let's start with INM I'm pleased to report that in May, we received an order in Indiana approving all key items in our settlement, including an improved 9.85% ROE In June, we received a constructive order in Michigan maintaining our existing 9.86% ROE with new rates taking effect in mid-July. Just last week for AEP Texas, parties filed a unanimous and unopposed comprehensive settlement with the ALJ increasing our authorized ROE to 9.76% with rates effective in early October pending commission approval. As you know earlier this year, we filed an ABCO biennial rate review in Virginia and a base rate case for PSO in Oklahoma, where we received intervener testimony in the PSO case last evening. We're at the beginning of the procedural schedules in both cases and expect commission orders in the fourth quarter.

We look forward to sharing updates on our progress in the coming months. Relative to future cases, AAPCO plans to file a base rate case in West Virginia in the next week. While we have many trackers in place to help mitigate regulatory lag, we have not had a rate case here in a few years and look forward to working with the parties to achieve a balanced and fair result. Looking ahead, I am proud of the progress we continue to make on the regulatory front and I remain excited about advancing our regulatory strategies in 2024 and 2024 and beyond.

Let's discuss AEP's recent fleet transformation activities and the progress we made on that important initiative. In May, APCO issued requests for proposals for 800 megawatts of wind or solar-owned resources with regulatory filings anticipated in 2025. Finally, as Ben mentioned, PSO signed an agreement in June to purchase Green Country's 795-megawatt natural gas generation facility to help ensure resource adequacy. The agreement is conditioned on regulatory approval and we plan to make the related filings with the Oklahoma Commission in the fall.

This is an example of a proactive approach by the team in meeting ever-increasing resource needs and we're enthusiastic about the opportunity as we advance our fleet transformation. To wrap up, I'd like to thank Ben for his leadership and welcome Bill to the AEP team. This is an exciting time here at AEP and when I think about the

recovery factor in Texas and higher normalized retail sales. These items were partially offset by increased property taxes and depreciation. The AEP Transmission Holdco segment contributed $0.39 per share up a penny compared to last year, primarily driven by investment growth.

Generation and marketing produced $0.12 per share down a penny from last year. We call that AEP renewables was sold in the third quarter last year, which has two impacts, a negative earnings variance due to the business being sold and removal of the interest costs for financing these assets. Additional drivers were lower retail margins offset by higher generation margins and lower taxes. Finally, corporate and other was up six cents compared to the prior year, primarily driven by lower income taxes and increased and increased other operating income related to timing in the prior year.

These items were partially offset by higher interest expense and lower interest income from the GNM segment. Let's turn to Slide 9, which shows weather normalized retail sales of 4% in the quarter from a year ago, headlined by a double digit 12.4% increase in commercial sales, which is where our data processing customers are classified. I'll note that in our T&D segment, the increase in commercial load was over 20% for the quarter. This is a trend that will continue over the coming years based on already signed customer commitments.

Our operating footprint and robust transmission system position us perfectly to grow along AI and other technologies and industries in need of access to affordable and reliable power. Through the remainder of this year, data processing gains will remain mostly concentrated in Ohio and Texas. But beyond this year, we are seeing strong commitments from new customers looking to connect at some of our vertically integrated companies as well. Outside of data processors, our industrial sales have remained resilient in the face of a slowing economy.

Industrial sales were strongest in Texas, driven by an influx of new customers, mainly in the energy industry. Thanks to our success over the past few years on the economic development front, we expect to see our industrial sales continue to be resilient in the next few years as several new large customers in steel, energy, renewable energy and semiconductors come online across our footprint. In the residential segment, we continue to see growth in customer count and load in Texas, but residential load remains weak in most of our territories, likely due to the cumulative effects of inflation. Bottom line, the amount of demand from new large loads we're seeing across our system is unprecedented.

We are excited, challenged and poised to embrace this opportunity. Let's move on to Slide 10. In the top left table, you can see the FFO to debt metric stands at 14.6% for the 12 months ended June 30th, which is a 40 basis point increase from the prior quarter. Our debt to cap decreased slightly from last quarter and was 62.6% at quarter end.

into. So, we're going to have generation, as well. And we recognize the need to make sure we have reliable distribution grid.

So, I think, if I had to rate it, it would be transmission increases, followed by generation, followed by distribution.

Jeremy, I would say you'll note, in our materials that we raised our CapEx this year, already by $500 million. That largely is in T&D, right? It's for reliability spend, also customer hookups, and storm-related capital. So, the shape of it, right, is going to be as these customer additions come online, and again, as Ben mentioned, we'll be laying all that out in the fall.

Q - Jeremy Tonet {BIO 15946844 <GO>}

Got it. So, it sounds like there's an opportunity for more near-term, as opposed to just later-dated at this point, if I understand correctly.

A - Unidentified Speaker

I think that that's true.

Q - Jeremy Tonet {BIO 15946844 <GO>}

Got it.

I was just wondering if you could talk a bit more on PSO's natural gas generation purchase there. To what extent do you see the need for incremental gas generation, , across Oklahoma, other service territories? Just wondering if you expect to see more of this.

A - Peggy I Simmons {BIO 17724877 <GO>}

So, I would say, this is Peggy, and I would say with the increased reserve margins that we're seeing from the RTOs and the additional load that we're starting to see across our system, we are going to need some additional generation. And this was a very proactive approach that the team took, as I mentioned in my comments earlier, to go out and find some affordable assets that we can bring onto the system.

And we plan to make that filing at the commission later this fall. yeah, Peggy mentioned proactive. It really I think was creative. It was outside of the the RFP process and but it we have an RFP process to compare the pricing to and it's clearly very favorable.

So we're really excited about it. I think it'll be great for our customers

Q - Analyst

Got it. Thank you for that.

Operator

Your next question comes from the line of Steve Fleishman of Wolfe Research.

Your line is open.

Q - Steve Fleishman {BIO 1512318 <GO>}

Hey, good morning. Sorry, I've got several questions on data center or data processing as you called it. So First of all just in the quarter, you had the very strong commercial sales growth, but then Your normalized sales growth between the two subs I think was actually down $0.04, when you kind of look at both vertical and T&D Could you just talk to? How we should think about that.

A - Unidentified Speaker

Yeah. In T&D Steve normalized sales were up $0.02.

Q - Steve Fleishman {BIO 1512318 <GO>}

Right. But then the vertical was down $0.06.

I think so. I guess just thinking, when I look at the whole picture, it's not kind of shit at least in that line item doesn't seem to be showing up as a benefit.

A - Unidentified Speaker

Yeah, so let me comment on the negative $0.06 in vertically integrated that's largely due to In vertically integrated we had a in the quarter, but a 4.9% decrease over last Q2 in Residential sales and that's largely what drove that number in our swept code territory. We had in, kind of, mid to late May into early June.

We had a number of repeated storm activity tornadic activity that took You know large swaths of customers out for significant amounts of times that what that drove that number down. We see -- we've seen that start to normalize back in June and July So I expect that to be to return to a more normal state.

Q - Steve Fleishman {BIO 1512318 <GO>}

Okay. Thanks.

And then on the the 15 gigawatts of committed data center sales to 2030. Could you just maybe better define? What committed means? When you when you give that data point.

A - Unidentified Speaker

Yeah, I mean it basically means that we have letter of agreements and those letter of agreements, you'd start the clock running if you will for us to do work that pretty

quickly. Go can go into the millions, which that customer who signed a letter who signed a letter of agreement is required to pay.

So, that's how we define it. You know, we've, as we look forward, we look at a number of filtering criteria, ownership of sites, et cetera, that we use. So, it's, these are far from just inquiries. These are serious customers that want to get on the grid and are willing to financially commit to do what it takes to get on the grid.

Q - Steve Fleishman {BIO 1512318 <GO>}

Okay, and are those customers kind of committing to these new tariffs you filed, or are we not at the point where they've made the agreement that those tariffs work for them when they've kind of done this?

A - Unidentified Speaker

Yeah, that will be going, those tariffs, as you know they haven't been approved yet, but they will need to the, depends where they are in the signing process as to whether or not they would be held to those tariffs or not. But going forward, customers, if approved, will all be required to step up to the tariffs.

Q - Steve Fleishman {BIO 1512318 <GO>}

Okay. Which, And then, yeah.

A - Unidentified Speaker

Well, I was just going to say, it's just, it's really important. You know, we're going to see more growth than we've seen in maybe generations, and it's going to be really important that that growth is beneficial for all customers, and at the worst case, at least neutral. And that's exactly why we're trying to, that's exactly why we're so keenly focused on making sure that we have these tariffs and the modifications I mentioned in Indiana and West Virginia. And it's just, we've got to get it right.

Q - Steve Fleishman {BIO 1512318 <GO>}

Okay. And then, maybe just in terms of helping to frame the capital needs, just, can you give us some rough sense of that 15 gigawatts, how much might be related to vertically integrated parts of AEP versus the transmission-only parts?

A - Unidentified Speaker

Yes, Steve. So, the way to think about it is, think of it as a 50-50 split between Texas and PJM You know, 50%, or of course, Texas, right, is our wires company. And PJM, take that 50% and basically split it 50-50 between INM, which is vertically integrated, and AEP Ohio, right, which is wires only.

Q - Steve Fleishman {BIO 1512318 <GO>}

Okay. So, that would be kind of 75-25, I guess, roughly, I think. Yeah. Okay.

Thank you.

A - Unidentified Speaker

Yeah, I think the incremental CapEx will be driven to support new load growth. And that's why we're just so keenly focused on making sure we get the rules right. And our modeling suggests that it will be good for all customers.

And that's, I mean, that's what makes me so excited about this is that, everybody can benefit. Load's good for all. There's certainly pressures, on the grid and the resiliency and things like that. But I think the load's going to be beneficial to mitigate cost increases.

Q - Nicholas Campanella {BIO 20250003 <GO>}

Okay, thanks. And then I guess, since you've kind of taken over, you have kind of pulled some strings on this voluntary severance program. Just where are there other opportunities in the plan to cut costs today or just things that maybe we're not thinking about that could be incremental to the positive?

A - Unidentified Speaker

Again, as I mentioned, I think, you've got Bill Fehrman coming in. He's got a track record of innovation.

The companies in the Berkshire Hathaway portfolio were extremely well run. Bill is extremely well respected. So I think he's going to bring a lot of great ideas. It's a lot of blocking and tackling and also taking advantage of innovation, smart technologies, et cetera.

That'll get us there. But, , the team has done a really good job, if you look back, in keeping O&M in check. So, again, I think the biggest way we keep costs down on our customers is to bring this new load on and bring it on in ways and rules and tariffs that are fair to all.

Q - Nicholas Campanella {BIO 20250003 <GO>}

Thank you.

Operator

Your next question comes from the line of Carly Davenport of Goldman Sachs. Your line is open.

Q - Carly Davenport {BIO 21913922 <GO>}

Hey, good morning. Thanks so much for your time.

Just a couple of clarification questions, if I could. First, just on the 15 gigawatts of incremental load by the end of the decade. Could you just clarify, is all of that related

to data centers or is there anything else in there? And then is there anything you can provide on how to think about the cadence of that load materializing from a timing perspective?

A - Unidentified Speaker

Yeah, the 15 gigawatts refers to all data centers and we're not announcing the cadence of that at this time. But it's already, as you could see, it's already showing up in our numbers.

So we are hooking up folks and you'll see continued increases over the next several years.

Q - Analyst

Great, thank you for that. And then just to follow up is just on the earned versus authorized ROE gap. I know you mentioned the earned ROE sort of flat at that 8.9% on a trailing 12 month basis.

Do you have that comparable weather normalized number similar to what you've provided in previous quarters?

A - Peggy I Simmons {BIO 17724877 <GO>}

Oh, we're looking forward to be at 9.1 for this year. As I mentioned over the past 12 months, I mean, on a rolling average right now, we're at 8.9, which is flat to where we were last quarter, but continue to make progress on that front.

Q - Analyst

Got it, great, thanks so much for the time.

A - Unidentified Speaker

Thank you.

Operator

Your next question comes from line of Andrew Wiesel of Scotiabank. Your line is open.

A - Unidentified Speaker

Morning.

Q - Andrew Weisel {BIO 15194095 <GO>}

Hi, good morning.

First, a quick governance question. Can you please talk about the outlook for the board and specifically what roles will Ben and Bill each have? Who will be chair of

A - Unidentified Speaker

Thanks.

Operator

Your next question comes from line of Durgesh Chopra of Evercore ISI Your line is open.

Q - Durgesh Chopra {BIO 20053859 <GO>}

Hey, team. Good morning. Good morning, Ben.

Andrew actually asked my question on the financing slide. Chuck, maybe a little sort of more color, there were kind of more negatives to positives in that cash flow slide. I mean, the asset sale proceeds were lower, right, and the CapEx is higher. If assuming normal weather for the rest of the year, are you going to be below, 14.6%, what you currently said, or should we kind of think about 14.6%, as strong as going into the end of the year?

A - Unidentified Speaker

Yeah, our plan is to be in the 14% to 15% range.

I'll just note, right, that we're well above the 13 % downgrade threshold. So, yeah, we plan to be in that range.

Q - Durgesh Chopra {BIO 20053859 <GO>}

Okay. Thank you.

Appreciate the time.

Operator

Your next question comes from the line of Sophie Karp of KeyBanc Capital Markets. Your line is open.

Q - Sophie Karp {BIO 19699392 <GO>}

Hi.

Good morning. Thank you for squeezing me in. If I could quickly go back to the 15 gigawatts of data center load. I guess, could you provide some color on some color on how much of that can be connected without any incremental investment in your system versus how much would they require incremental investments to facilitate that?

A - Peggy I Simmons {BIO 17724877 <GO>}

Right now, none of that can be connected at this point in time.

But as we look at our LOA process, that's why we are looking at any initial upgrades that are needed as we prepare to plan the system to connect this load over that period of time.

Q - Analyst

Got it, got it. Thank you. And then maybe a little bit more of an open-ended question.

Your current outstanding RFPs don't have any gas in them. It's mostly renewables. And I'm just curious of how you think about the cadence of needing to add dispatchable generation there. And when it comes to gas, will you continue to have a bias towards acquiring existing assets, or will we see some new builds potentially?

A - Peggy I Simmons {BIO 17724877 <GO>}

So our RFPs are all-source RFPs, so we're evaluating all technologies that come in.

And we do believe that dispatchable resources are needed to be added to the grid as well, and they will be part of the plan.

Q - Analyst

Okay. Thank you.

A - Peggy I Simmons {BIO 17724877 <GO>}

You're welcome.

Operator

Your next question comes from the line of Bill Apitelli of UBS Your line is open.

A - Unidentified Speaker

Morning.

Q - Analyst

Hi, good morning. Thanks for taking my questions.

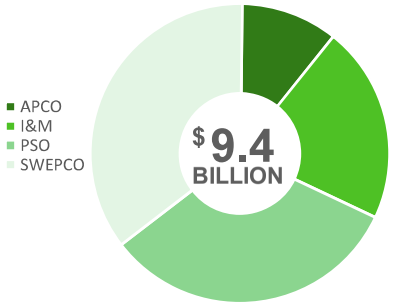
Just want to dig into a little bit more on the sales growth trends. So on the residential side, you commented that Texas looks strong, but that more broadly, the cumulative effects of inflation have been weighing on it. So any more color there? You know, are you expecting an improvement in the second half of the year?

New Generation – Investment Growth

Continuing execution on the $9.4B regulated renewables investment over the next five years

RFPs IN PROGRESS[1]	APPALACHIAN POWER	PUBLIC SERVICE COMPANY OF OKLAHOMA	SOUTHWESTERN ELECTRIC POWER COMPANY
RFPs Issued	May 2024	November 2023	January 2024
Wind	800 MW	1,500 MW of SPP accredited capacity	2,100 MW of SPP accredited capacity
Solar			
Storage			
Natural Gas	-		
Reg. Filings and Approvals	Q2-25 – Q4-25	Q4-24 – Q3-25	Q1-25 – Q1-26
Projected In-service Dates	2028	2027 or 2028	2027 or 2028

2024-2028 CAPEX



REGULATED GENERATION INVESTMENT

~20 GW Opportunities

Significant long-term investment potential over the next decade

Capital Flexibility

Investments contingent upon markets and regulatory approvals and are backed-up by a flexible pipeline of T&D investments

Growth Drivers

Generation needs coupled with federal and state policies support renewable generation investments and extend our investment runway

[1] RFPs represent up-to MW capacity values; related regulatory filings will take into consideration commission preferences including owned and contracted resources. I&M 2023 RFP was completed resulting in the selection of contracted resources only. KPCo 2023 RFP details were not shown as the company only seeks contracted resources.

Executive Summary

The 2025/2026 Reliability Pricing Model (RPM) Base Residual Auction (BRA) cleared 135,684 MW of unforced capacity in the RTO from non-energy efficiency annual, summer-period, and winter-period resources representing a 18.6% reserve margin. Energy Efficiency (EE) resources are excluded from this calculation because their impact is reflected in a lower load forecast and therefore not used to meet the Reliability Requirement. The total cost to load for the 2025/2026 BRA was $14.7 billion, which includes the cost of EE. The reserve margin for the entire RTO, which includes Fixed Resource Requirement (FRR) is 18.5% or 0.7 percentage points higher than the target reserve margin of 17.8%. This is a significant reduction in the overall reserve margin, which includes FRR, from the 2024/2025 BRA. The 2024/2025 overall reserve margin for the entire RTO was 20.4%, or 5.7 percentage points higher than the target reserve margin of 14.7% The 2025/26 to 2024/25 Delivery Year supply and demand changes are not straightforward comparisons because of the implementation of marginal Effective Load Carrying Capability accreditation for all resources and the associated reduction of the reliability requirement through the Forecast Pool Requirement (FPR) as well as the transition of load from FRR into RPM. The Delivery Year over Delivery Year unforced capacity or reliability requirement comparisons in the report have not been adjusted for these changes.

Supply offered into the RPM capacity market, excluding EE resources, declined 13,252.1 MW from 148,945.7 MW in the 2024/2025 BRA to 135,692.3 MW in the 2025/2026 BRA. This is the fourth BRA in a row where the total capacity offered from non-EE resources has declined. The number of constrained LDAs dropped from five to two in the 2025/2026 BRA. The total amount of capacity, excluding EE Resources, in RPM that cleared decreased by 5,743.6 MW from 140,415.8 MW in the 2024/2025 BRA to 134,672.2 MW in the 2025/2026 BRA.

The RTO as a whole failed the Market Structure Test (i.e., the Three-Pivotal Supplier Test), resulting in the application of market power mitigation to all Existing Generation Capacity Resources. Mitigation was applied to a supplier's existing generation resources resulting in utilizing the lesser of the supplier's approved Market Seller Offer Cap for such resource or the supplier's submitted offer price for such resource in the RPM Auction clearing.

Table 1. Comparison of BRA Clearing Prices by Delivery Year by LDA

		BRA Resource Clearing Prices ($/MW-day)		
Capacity Type	BRA	Rest of RTO	BGE	DOM
Capacity Performance	2025/26	***$269.92***	***$466.35***	***$444.26***
	2024/25	***$28.92***	***$73.00***	-

Note: Clearing prices in bold indicate constrained LDA

The following is a list of new market rules or planning parameter changes that may have impacted the auction results:

- Planning Parameters (please see the Planning Parameters Report) changes which include:
  - 3,243 MW increase in forecasted load
  - IRM increase from 14.7% to 17.8%
- Significant decrease in overall supply from retirements (actual retirements plus must offer exceptions for future retirements), change in status from capacity resource to energy only and must offer exceptions for exports (see change of status and must offer exception report)

- Critical Issue Fast Path (CIFP) changes were approved by FERC (ER24-99-000). These changes included marginal resource accreditation (ELCC), Forecast Pool Requirement (FPR) and a binding notice of intent for planned resources among other changes.
- Dominion FRR has changed to RPM and therefore the entire Dominion zone is now in RPM.
- Net CONE values used to determine the VRR Curve changed significantly in some LDAs. In most cases, LDAs received lower Net CONE values, and the range was between +4.1% in the PE zone to -80.6% in the BGE zone.

Note: *This BRA was conducted under a compressed auction schedule where the auction occurred ~10 months prior to the start of the delivery year. A typical BRA is held more than three years before the start of the delivery year. The prior BRA was conducted under the same compressed auction schedule.*

Detailed Report

Table 2 contains a summary of the RTO clearing prices, cleared unforced capacity and implied cleared reserve margins for the 2015/2016 through 2025/2026 RPM BRAs. The Reserve Margin presented in **Table 2** represents the percentage of installed capacity cleared in RPM and committed by FRR entities in excess of the RTO load (including load served under the FRR alternative). The reserve margin for the entire RTO, which includes FRR and RPM load, is 18.5%, or 0.7 percentage points higher than the target reserve margin of 17.8%.

Table 2. RPM Base Residual Auction Resource Clearing Price Results in the RTO

	Auction Results				
Delivery Year	Resource Clearing Price	Cleared UCAP (MW)	RPM Reserve Margin	Total Reserve Margin[1]	Total Cost to Load ($ billion)
2015/16[2]	$136.00	164,561.2	19.7%	19.3%	$9.7
2016/17[3]	$59.37	169,159.7	20.7%	20.3%	$5.5
2017/18	$120.00	167,003.7	20.1%	19.7%	$7.5
2018/19	$164.77	166,836.9	20.2%	19.8%	$10.9
2019/20	$100.00	167,305.9	22.9%	22.4%	$7.0
2020/21[4]	$76.53	165,109.2	23.9%	23.3%	$7.0
2021/22	$140.00	163,627.3	22.0%	21.5%	$9.3
2022/23	$50.00	144,477.3	21.1%	19.9%	$3.9
2023/24	$34.13	144,870.6	21.6%	20.3%	$2.2
2024/25	$28.92	147,478.9	21.7%	20.4%	$2.2
2025/26[5]	$269.92	135,684.0	18.6%	18.5%	$14.7

[1] Reserve Margin includes FRR+RPM (Total ICAP/Total Peak-1; [2] 2015/2016 BRA includes a significant portion of AEP and DEOK zone load previously under the FRR Alternative; [3] 2016/2017 BRA includes EKPC zone;
[4] Beginning 2020/2021 Cleared UCAP (MW) includes Annual and matched Seasonal Capacity Performance sell offers; [5] DOM zone included in RPM

Figure 1 represents the trend in BRA capacity price by delivery year for RTO, EMAAC, SWMAAC and MAAC. For 2025/2026, all four LDAs cleared at $269.97. This clearing price was an increase from $28.92 in RTO, $49.49 in MAAC and SWMAAC and $54.95 in EMAAC in the 2024/2025 BRA. The number of constrained LDAs decreased from five LDAs (MAAC, BGE, DPL-S, EMAAC and DEOK) to two LDAs (BGE and DOM).

Figure 1. BRA Clearing Prices by Delivery Year for Major LDAs

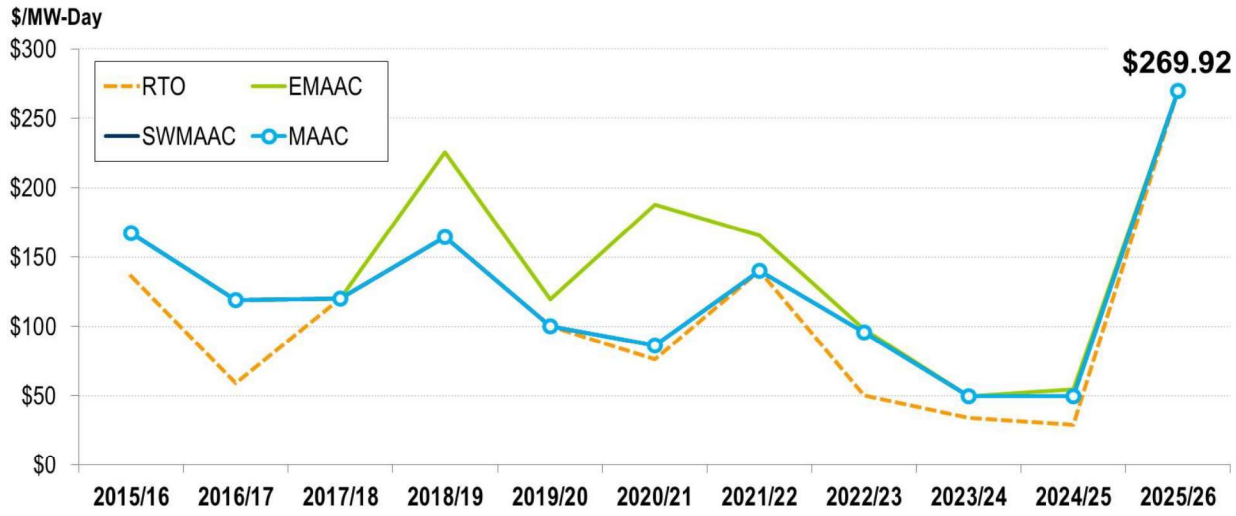


Table 3 provides the total offered and cleared MWs and associated prices by LDA. This table provides an indication of how much supply did not clear for each LDA. Since BGE and DOM were constrained LDAs, they cleared at a higher price than the rest of RTO or $466.35 and $444.26, respectively.

Since BGE and DOM were constrained LDAs, Capacity Transfer Rights (CTRs) will be allocated to loads in these constrained LDAs for the 2025/2026 Delivery Year. CTRs are allocated by load ratio share to all Load Serving Entities (LSEs) in a constrained LDA that has a higher clearing price than the unconstrained region. CTRs serve as a credit back to the LSEs in the constrained LDA for use of the transmission system to import less expensive capacity into that constrained LDA and are valued at the difference in the clearing prices of the constrained and unconstrained regions.

For 2025/2026, only 20.7 MW UCAP of annual generation and DR resources did not clear in the auction. Any remaining amount that did not clear was winter only where there were no summer-only resources that did not clear.

Table 3. Offered and Cleared MWs and Associated Prices by LDA

LDA	MW (UCAP)		System Marginal Price	Locational Price Adder***	RCP for Capacity Performance Resources
	Offered MW*	Cleared MW**			
ATSI	7,791.9	7,764.9	$269.92	$0.00	$269.92
ATSI-CLEVELAND	1,615.5	1,614.0	$269.92	$0.00	$269.92
COMED	22,524.4	21,813.9	$269.92	$0.00	$269.92
DAY	493.1	488.6	$269.92	$0.00	$269.92
DEOK	1,639.5	1,633.8	$269.92	$0.00	$269.92
DOM	20,100.2	20,003.4	$269.92	$174.34	$444.26
MAAC	51,530.7	51,316.9	$269.92	$0.00	$269.92
PPL	8,785.1	8,783.0	$269.92	$0.00	$269.92
EMAAC	24,479.3	24,380.4	$269.92	$0.00	$269.92
DPL-SOUTH	960.4	956.9	$269.92	$0.00	$269.92
PSEG	4,446.7	4,390.3	$269.92	$0.00	$269.92
PS-NORTH	2,536.6	2,507.4	$269.92	$0.00	$269.92
SWMAAC	5,089.1	5,060.8	$269.92	$0.00	$269.92
BGE	612.9	606.9	$269.92	$196.43	$466.35
PEPCO	2,285.5	2,263.2	$269.92	$0.00	$269.92
RTO	**137,153.4**	**135,684.0**	**$269.92**	**$0.00**	**$269.92**

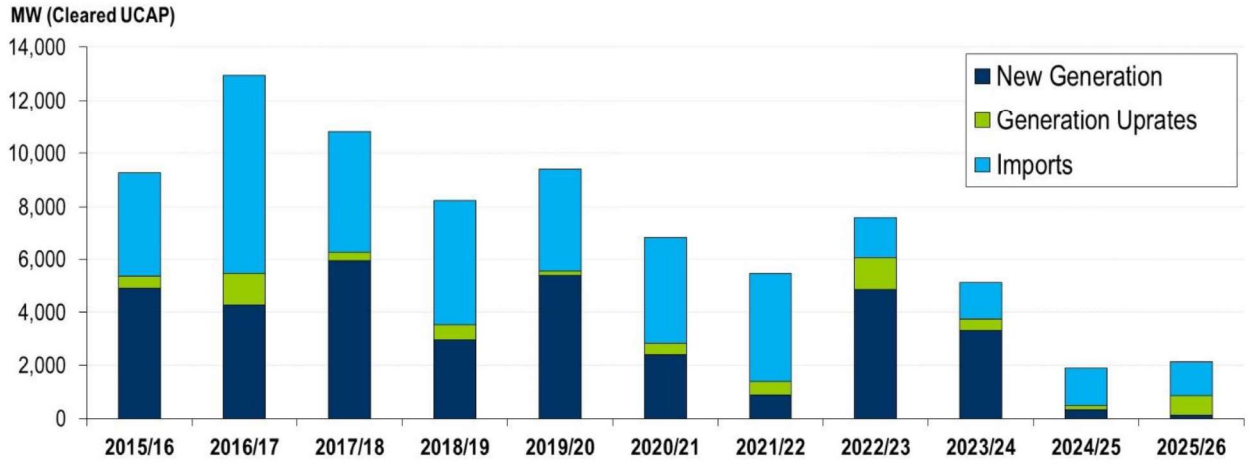
** Offered MW values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers.*

*** Cleared MW values include Annual and matched Seasonal Capacity Performance sell offers within the LDA.*

**** Locational Price Adder is with respect to the immediate parent LDA*

As seen in **Figure 2**, the 2025/2026 BRA procured 110.3 MW of capacity from new generation and 753.8 MW from uprates to existing or planned generation. The quantity of new generation is down from the previous BRA where there was 328.5 MW of new generation. The quantity of capacity procured from external Generation Capacity Resources in the 2025/2026 BRA is 1,268.5 MW. All external generation capacity that cleared in the 2025/2026 BRA are Prior Capacity Import Limit (CIL) Exception External Resources[1] that qualify for an exception for the 2025/2026 Delivery Year to satisfy the enhanced pseudo-tie requirements established by FERC Order ER17-1138. The total quantity of DR procured in the 2025/2026 BRA is 6,064.7 MW, and the total quantity of EE procured in the 2025/2026 BRA is 1,459.8 MW.

Figure 2. Cleared MWs (UCAP) by New Generation/Uprates/Imports by Delivery Year



Error! Reference source not found. contains a summary of the RTO resources for each cleared BRA from 2015/2016 t hrough the 2025/2026 Delivery Years in terms of ICAP. The summary includes all resources located in the RTO (including FRR Capacity Plans).

A total of 195,853.1 MW of ICAP was eligible to be offered into the 2025/2026 Base Residual Auction or used in an FRR Capacity Plan. The total amount of supply in PJM decreased from 202,376.6 MW ICAP to only 195,853.1 MW ICAP, or a decline in the total amount of supply by 6,523.5 MW ICAP. Since this comparison is in ICAP and includes total eligible capacity for both FRR and RPM, it is not impacted by the CIFP capacity accreditation changes or the addition of Dominion load into RPM.

[1] A Prior CIL Exception Resource is an external Generation Capacity Resource for which (1) a capacity market seller had, prior to May 9, 2017, cleared a Sell Offer in an RPM Auction under the exception provided to the definition of CIL as set forth in Article 1 of the Reliability Assurance Agreement or (2) an FRR Entity committed, prior to May 9, 2017, in an FRR Capacity Plan under the exception provided to the definition of CIL.

A total of 171,324.3 MW (ICAP) of generation and Demand Response capacity was offered into the Base Residual Auction. This is an increase of 17,262 MW from that which was offered into the 2024/2025 BRA and was driven by the return of Dominion to RPM from FRR. The total DR offered into the auction significantly declined from 9321.1 MW ICAP to 8009.7 MW ICAP. EE resources are considered to be included in the forecast and therefore do not contribute to meeting the reliability requirement. A total of 24,528.8 MW (ICAP) was eligible, but not offered due to (1) inclusion in an FRR Capacity Plan; (2) export of the resource; (3) excused from offering into the auction; (4) Deactivated; or (5) not required to offer into the auction and elected to not offer into the auction. Resources were excused from the must offer requirement for the following reasons: approved retirement requests or external sale of capacity. Resources with approved removal of capacity status requests also did not have a capacity must offer requirement.

Table 4. Total RTO Resources (RPM + FRR) Offered vs Unoffered by Resource Type Used To Meet the Reliability Requirement

	Delivery Year *(All values in ICAP)*										
Auction Supply	**2015/16***	**2016/17****	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2023/24**	**2024/25**	**2025/26*****
Internal PJM Gen Capacity	187,407.7	193,052.5	190,333.2	191,322.3	195,203.0	197,804.7	198,726.6	193,412.2	189,704.7	191,133.4	186,134.2
Internal PJM DR+PRD Capacity	19,243.6	13,932.9	10,855.2	10,772.8	10,859.2	8,245.5	10,694.8	9,501.2	9,517.2	9,626.1	8,233.7
Imports Offered	4,649.7	8,412.2	6,300.9	5,724.6	4,821.4	5,440.5	4,725.0	1,649.1	1,601.2	1,617.1	1,485.2
Eligible RPM Capacity	211,301.0	215,397.6	207,489.3	207,819.7	210,883.6	211,490.7	214,146.4	204,562.5	200,823.1	202,376.6	195,853.1
Exports/ Delistings	1,218.8	1,218.8	1,223.2	1,313.4	1,318.2	1,319.8	1,319.8	1,525.3	1,518.9	1,522.7	1,525.3
FRR Commitments	15,997.9	15,576.6	15,776.1	15,793.0	15,385.3	13,931.6	13,657.4	33,297.1	33,500.7	34,584.2	13,184.5
Excused	8,712.9	8,524.0	4,305.3	2,348.4	1,454.5	8,384.4	9,433.8	2,190.0	9,949.6	12,207.4	9,819.0
Total Eligible RPM Capacity: Excused	25,929.6	25,319.4	21,304.6	19,454.8	18,158.0	23,635.8	24,411.0	37,012.4	44,969.2	48,314.3	24,528.8
Remaining Eligible RPM Capacity	185,371.4	190,078.2	186,184.7	188,364.9	192,725.6	187,854.9	189,735.4	167,550.1	155,853.9	154,062.3	171,324.3
Generation Offered	166,127.8	176,145.3	175,329.5	177,592.1	181,866.4	178,807.1	178,823.5	157,872.2	146,571.7	144,741.2	163,314.6
DR Offered	19,243.6	13,932.9	10,855.2	10,772.8	10,859.2	9,047.8	10,911.9	9,677.9	9,282.2	9,321.1	8,009.7
Total Eligible RPM Capacity: Offered	**185,371.4**	**190,078.2**	**186,184.7**	**188,364.9**	**192,725.6**	**187,854.9**	**189,735.4**	**167,550.1**	**155,853.9**	**154,062.3**	**171,324.3**

*Note: *includes a significant portion of AEP and DEOK zone load previously under the FRR Alternative; **includes EKPC zone; ***includes DOM zone load previously under the FRR Alternative.*

https://www.beehive.govt.nz/release/study-underway-secure-national-fuel-resilience
30 July 2024

Study underway to secure national fuel resilience

Hon Shane Jones

Energy

A study of New Zealand's fuel security, including investigating reopening the Marsden Point refinery, will soon get underway as the Coalition Government seeks to beef up the country's resilience, Associate Energy Minister Shane Jones says.

"Ensuring New Zealand is a resilient and self-sufficient country is a priority for this government, and a secure and reliable fuel supply is critical to this.

"Since Marsden Point was mothballed by the previous government, we have relied on imports for all our liquid fuels, which leaves us completely vulnerable to international supply chain disruptions. Fuel is crucial for keeping our economy running and our communities moving.

"We need to protect ourselves from potential crises at home and overseas and to put measures in place to mitigate and manage adverse impacts.

"Through the study, we will have a clearer idea where we stand domestically and the resilience of the fuel supply chains into our country so we can make a robust plan to ensure a secure fuel supply," Mr Jones says.

Following a procurement process, Ministry of Business, Innovation and Employment (MBIE) has appointed Envisory, with support from Castalia, to undertake the fuel security study.

The study will involve looking at New Zealand's fuel demand forecast, engaging with stakeholders across the fuel supply chain, providing advice regarding reopening Marsden Point refinery, and mapping potential disruptions to the supply chain.

Envisory demonstrated a strong understanding of New Zealand's fuel industry and supply chains, as well as expertise in delivering fuel security work here, according to MBIE.

"While the study will provide valuable insight in the impact of an extended fuel supply shortage and effects on domestic fuel distribution, it will specifically investigate the strategic importance of the infrastructure at Marsden Point and the role it could play in underpinning New Zealand's fuel resilience," Mr Jones says.

The study is a National-NZ First coalition priority, and its findings will support the development of a fuel security plan. An interim report investigating the reopening of Marsden Point refinery is due before the end of 2024.

The Government has other work underway to increase fuel resilience, including finalising changes to the minimum fuel stockholding obligations regime, exploring options for bolstering domestic diesel resilience, and working with industry on their plans to increase jet fuel resilience at Auckland Airport.

https://www.airnewzealandnewsroom.com/news-updates

Air New Zealand to withdraw from Science Based Target initiative

After careful consideration, Air New Zealand is removing its 2030 science based carbon intensity reduction target and will withdraw from the Science Based Targets initiative.

Many of the levers needed to meet the target, including the availability of new aircraft, the affordability and availability of alternative jet fuels, and global and domestic regulatory and policy support, are outside the airline's direct control and remain challenging.

Air New Zealand Chief Executive Officer, Greg Foran says, "In recent months, and more so in the last few weeks, it has also become apparent that potential delays to our fleet renewal plan pose an additional risk to the target's achievability. It is possible the airline may need to retain its existing fleet for longer than planned due to global manufacturing and supply chain issues that could potentially slow the introduction of newer, more fuel-efficient aircraft into the fleet. As such and given so many levers needed to meet the target are outside our control, the decision has been made to retract the 2030 target and withdraw from the SBTi network immediately.

Work has begun to consider a new near-term carbon emissions reduction target that could better reflect the challenges relating to aircraft and alternative jet fuel availability within the industry.

Air New Zealand Chair, Dame Therese Walsh says, "Air New Zealand remains committed to reaching its 2050 net zero carbon emissions target. Our work to transition away from fossil fuels continues, as does our advocacy for the global and domestic regulatory and policy settings that will help facilitate Air New Zealand, and the wider aviation system in New Zealand, to do its part to mitigate climate change risks."

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Alternative Fuels Data Center

https://afdc.energy.gov/fuels/hydrogen-basics

Hydrogen Basics

Hydrogen (H_2) is an alternative fuel that can be produced from diverse domestic resources. Although the market for hydrogen as a transportation fuel is in its infancy, government and industry are working toward clean, economical, and safe hydrogen production and distribution for widespread use in fuel cell electric vehicles (FCEVs). Light-duty FCEVs are now available in limited quantities to the consumer market in localized regions domestically and around the world. The market is also emerging for buses, material handling equipment (such as forklifts), ground support equipment, medium- and heavy-duty trucks, marine vessels, and stationary applications. For more information, see fuel properties and the Hydrogen Analysis Resource Center.

Hydrogen is abundant in our environment. It's stored in water (H_2O), hydrocarbons (such as methane, CH_4), and other organic matter. One challenge of using hydrogen as a fuel is efficiently extracting it from these compounds.

Currently, steam reforming—combining high-temperature steam with natural gas to extract hydrogen—accounts for the majority of the hydrogen produced in the United States. Hydrogen can also be produced from water through electrolysis. This is more energy intensive but can be done using renewable energy, such as wind or solar, and avoiding the harmful emissions associated with other kinds of energy production.

Almost all the hydrogen produced in the United States each year is used for refining petroleum, treating metals, producing fertilizer, and processing foods.

Although the production of hydrogen may generate emissions affecting air quality, depending on the source, an FCEV running on hydrogen emits only water vapor and warm air as exhaust and is considered a zero-emission vehicle. Major research and development efforts are aimed at making these vehicles and their infrastructure practical for widespread use. This has led to the rollout of light-duty vehicles to retail consumers, as well as the initial implementation of medium- and heavy-duty buses and trucks in California and fleet availability in northeastern states.

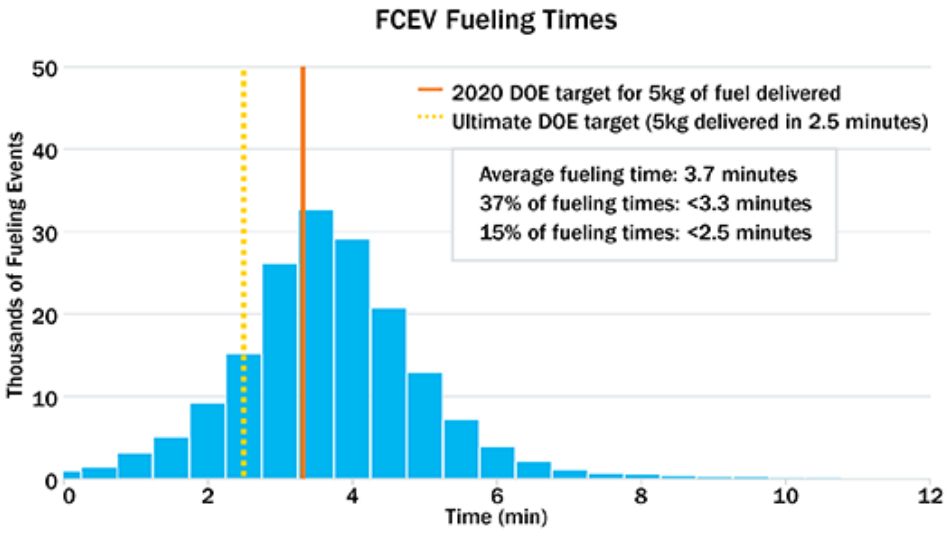
Learn more about hydrogen and fuel cells from the Hydrogen and Fuel Cell Technologies Office.

Hydrogen as an Alternative Fuel

Hydrogen is considered an alternative fuel under the Energy Policy Act of 1992. The interest in hydrogen as an alternative transportation fuel stems from its ability to power fuel cells in zero-emission vehicles, its potential for domestic production, and the fuel cell electric vehicle's fast filling time and high efficiency. In fact, a fuel cell coupled with an electric motor is two to three times more efficient than an internal combustion engine running on gasoline. Hydrogen can also serve as fuel for

internal combustion engines. However, unlike FCEVs, these produce tailpipe emissions and are less efficient. Learn more about fuel cells.

The energy in 2.2 pounds (1 kilogram) of hydrogen gas is about the same as the energy in 1 gallon (6.2 pounds, 2.8 kilograms) of gasoline. Because hydrogen has a low volumetric energy density, it is stored onboard a vehicle as a compressed gas to achieve the driving range of conventional vehicles. Most current applications use high-pressure tanks capable of storing hydrogen at either 5,000 or 10,000 pounds per square inch (psi). For example, the FCEVs in production by automotive manufacturers and available at dealerships have 10,000 psi tanks. Retail dispensers, which are mostly co-located at gasoline stations, can fill these tanks in 3-5 minutes. Fuel cell electric buses currently use 5,000 psi tanks that take 10–15 minutes to fill. Other ways of storing hydrogen are under development, including bonding hydrogen chemically with a material such as metal hydride or low-temperature sorbent materials. Learn more about hydrogen storage.



Data from retail hydrogen fueling stations, collected and analyzed by the National Renewable Energy Laboratory, show the average time spent fueling an FCEV is less than 4 minutes.

California is leading the nation in building hydrogen fueling stations for FCEVs. As of 2023, 52 retail hydrogen stations were open to the public in California, as well as one in Hawaii, and 45 more were in various stages of construction or planning in California. These stations are serving over 8,000 FCEVs. California continues to provide funding toward building hydrogen infrastructure through its Clean Transportation Program. The California Energy Commission is authorized to allocate up to $20 million per year through 2023 and is investing in an initial 100 public stations to support and encourage these zero-emission vehicles. In addition, retail stations are planned for some midwestern and northeastern states, with some of those already serving fleet customers.

Vehicle manufacturers are only offering FCEVs to consumers who live in regions where hydrogen stations exist. Non-retail stations in California and throughout the country also continue serving FCEV fleets, including buses. Multiple distribution centers are using hydrogen to fuel material-handling vehicles in their normal operations. In addition, several announcements have been made regarding the production of heavy-duty vehicles, such as line-haul trucks, that will require fueling stations with much higher capacities than existing light-duty stations. Find hydrogen fueling stations across the United States.

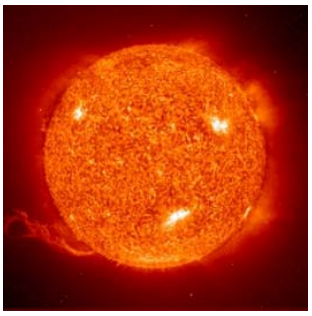
https://www.eia.gov/energyexplained/hydrogen/#:~:text=Hydrogen%20is%20an%20energy%20carrier&text=Hydrogen%2C%20like%20electricity%2C%20is%20an,source%20of%20energy%20or%20fuel.

Independent Statistics & Analysis
U.S. Energy Information Administration

Hydrogen explained
What is hydrogen?

Hydrogen is the simplest element. Each atom of hydrogen has only one proton. Hydrogen is also the most abundant element in the universe. Stars such as the sun consist mostly of hydrogen. The sun is essentially a giant ball of hydrogen and helium gases.

Hydrogen occurs naturally on earth only in compound form with other elements in liquids, gases, or solids. Hydrogen combined with oxygen is water (H_2O). Hydrogen combined with carbon forms different compounds—or hydrocarbons—found in natural gas, coal, and petroleum.



The sun is essentially a giant ball of hydrogen gas undergoing fusion into helium gas. This process causes the sun to produce vast amounts of energy.

Source: NASA (public domain)
?

Hydrogen is the lightest element. Hydrogen is a gas at normal temperature and pressure, but hydrogen condenses to a liquid at minus 423 degrees Fahrenheit (minus 253 degrees Celsius).

Hydrogen is an energy carrier

Energy carriers allow the transport of energy in a usable form from one place to another. Hydrogen, like electricity, is an energy carrier that must be produced from another substance. Hydrogen can be produced—separated—from a variety of sources including water, fossil fuels, or biomass and used as a source of energy or fuel. Hydrogen has the highest energy content of any common fuel by weight (about three times more than gasoline), but it has the lowest energy content by volume (about four times less than gasoline).

It takes more energy to produce hydrogen (by separating it from other elements in molecules) than hydrogen provides when it is converted to useful energy. However, hydrogen is useful as an energy source/fuel because it has a high energy content per unit of weight, which is why it is used as a rocket fuel and in fuel cells to produce electricity on some spacecraft. Hydrogen is not widely used as a fuel now, but it has the potential for greater use in the future.

Last updated: January 20, 2022

16. Contingent liabilities

As of June 30, 2024, there were no material changes to the contingent liabilities as reported in the 2023 consolidated financial statements.

17. Other financial obligations

Compared with the 2023 consolidated financial statements, other financial obligations increased by €2.7 billion to €40.9 billion as of June 30, 2024. The rise was largely due to higher purchase commitments for property, plant, equipment and services.

18. Events after the balance sheet date

On July 9, 2024, the Board of Management of AUDI BRUSSELS S.A./N.V., Brussels/Belgium (Audi Brussels) initiated an information and consultation process under Belgian law for the restructuring of the site against the backdrop of the development of demand for the Audi Q8 e-tron model family manufactured in Brussels. In this process, the Board of Management of Audi Brussels is consulting on alternative solutions together with the responsible social partners. At the end of this process, operations can also be discontinued, among other things. As a result of the alternative use or plant closure, the expected restructuring expenses currently estimated at €1.3 billion will primarily weigh on the Volkswagen Group's operating profit in the second half of 2024. The expenses are made up of, among other things, anticipated amortization and depreciation, costs from a change in production operation, legal and consulting costs and employee-related expenses.

Wolfsburg, July 30, 2024

Volkswagen Aktiengesellschaft

The Board of Management

Dan Tsubouchi @Energy_Tidbits · 58m

Holdback to HH #NatGas prices.

Gas storage is +252 bcf YoY & well above high end of 5 yr range.

Would be worse if key US #NatGas producers haven't shut-in production due to prices.

EQT alone strategic curtailment was 82 bcfd in H1, expect another 90 in H2 for total 172 in

Show more

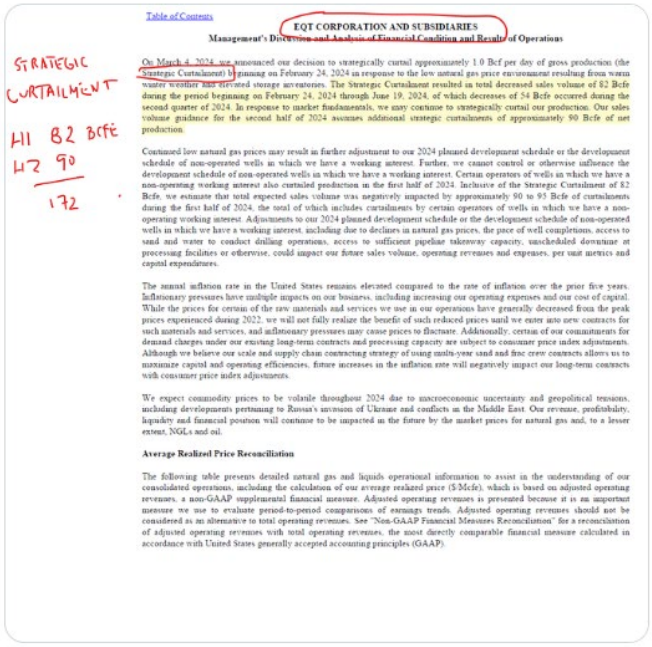


Table of Contents

EQT CORPORATION AND SUBSIDIARIES

Management's Discussion and Analysis of Financial Condition and Results of Operations

STRATEGIC CURTAILMENT

H1 82 BCFE

H2 90

172

On March 4, 2024, we announced our decision to strategically curtail approximately 1.0 Bcf per day of gross production (the Strategic Curtailment) beginning on February 24, 2024 in response to the low natural gas price environment resulting from warm winter weather and elevated storage inventories. The Strategic Curtailment resulted in total decreased sales volume of 82 Bcfe during the period beginning on February 24, 2024 through June 19, 2024, of which decreases of 54 Bcfe occurred during the second quarter of 2024. In response to market fundamentals, we may continue to strategically curtail our production. Our sales volume guidance for the second half of 2024 assumes additional strategic curtailments of approximately 90 Bcfe of net production.

Continued low natural gas prices may result in further adjustment to our 2024 planned development schedule or the development schedule of non-operated wells in which we have a working interest. Further, we cannot control or otherwise influence the development schedule of non-operated wells in which we have a working interest. Certain operators of wells in which we have a non-operating working interest also curtailed production in the first half of 2024. Inclusive of the Strategic Curtailment of 82 Bcfe, we estimate that total expected sales volume was negatively impacted by approximately 90 to 95 Bcfe of curtailments during the first half of 2024, the total of which includes curtailments by certain operators of wells in which we have a non-operating working interest. Adjustments to our 2024 planned development schedule or the development schedule of non-operated wells in which we have a working interest, including due to declines in natural gas prices, the pace of well completions, access to sand and water to conduct drilling operations, access to sufficient pipeline takeaway capacity, unscheduled downtime at processing facilities or otherwise, could impact our future sales volume, operating revenues and expenses, per unit metrics and capital expenditures.

The annual inflation rate in the United States remains elevated compared to the rate of inflation over the prior five years. Inflationary pressures have multiple impacts on our business, including increasing our operating expenses and our cost of capital. While the prices for certain of the raw materials and services we use in our operations have generally decreased from the peak prices experienced during 2022, we will not fully realize the benefit of such reduced prices until we enter into new contracts for such materials and services, and inflationary pressures may cause prices to fluctuate. Additionally, certain of our commitments for demand charges under our existing long-term contracts and processing capacity are subject to consumer price index adjustments. Although we believe our scale and supply chain contracting strategy of using multi-year sand and frac crew contracts allows us to maximize capital and operating efficiencies, future increases in the inflation rate will negatively impact our long-term contracts with consumer price index adjustments.

We expect commodity prices to be volatile throughout 2024 due to macroeconomic uncertainty and geopolitical tensions, including developments pertaining to Russia's invasion of Ukraine and conflicts in the Middle East. Our revenue, profitability, liquidity and financial position will continue to be impacted in the future by the market prices for natural gas and, to a lesser extent, NGLs and oil.

Average Realized Price Reconciliation

The following table presents detailed natural gas and liquids operational information to assist in the understanding of our consolidated operations, including the calculation of our average realized price ($/Mcfe), which is based on adjusted operating revenues, a non-GAAP supplemental financial measure. Adjusted operating revenues is presented because it is an important measure we use to evaluate period-to-period comparisons of earnings trends. Adjusted operating revenues should not be considered as an alternative to total operating revenues. See "Non-GAAP Financial Measures Reconciliation" for a reconciliation of adjusted operating revenues with total operating revenues, the most directly comparable financial measure calculated in accordance with United States generally accepted accounting principles (GAAP).

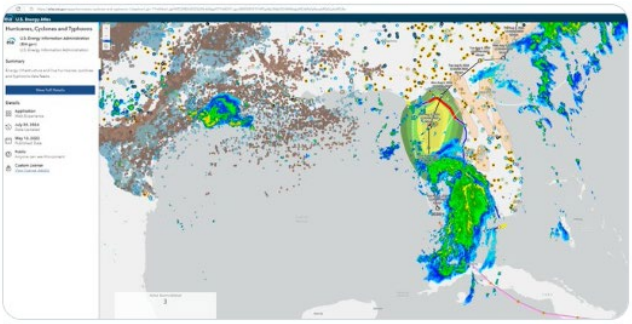
1 1 3 869

Dan Tsubouchi @Energy_Tidbits · 3h

Reminder @EIAgov 👇 has a great interactive live tropical storm or hurricane tracking map that shows all oil and gas wells and infrastructure, as well as other non oil and gas infrastructure.

Current shows how Tropical Storm Debby is east of all oil and gas in GoM and along

Show more



> **Dan Tsubouchi** @Energy_Tidbits · 3h
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> 
>
> Tropical Storm Debby expected to be Hurricane 1 strength when it hits NW Florida.
>
> Other negative is Debby's movement slowed down from 16 to 13 mph & expected to further slow down. ...

1 3 1.5K

Dan Tsubouchi @Energy_Tidbits · 3h

Reminder @EIAgov 👇 has a great interactive live tropical storm or hurricane tracking map that shows all oil and gas wells and infrastructure, as well as other non oil and gas infrastructure.

Current shows how Tropical Storm Debby is east of all oil and gas in GoM and along

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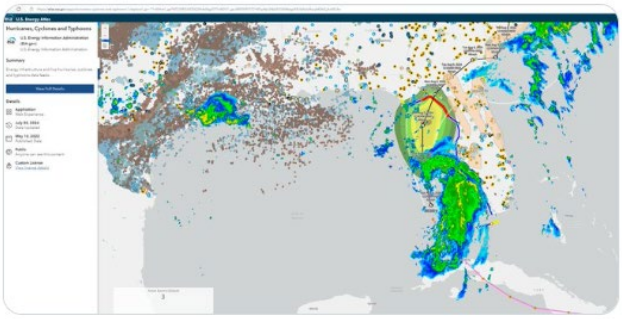

> **Dan Tsubouchi** @Energy_Tidbits · 3h
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> Tropical Storm Debby expected to be Hurricane 1 strength when it hits NW Florida.
>
> Other negative is Debby's movement slowed down from 16 to 13 mph & expected to further slow down. ...

1 3 1.5K

Dan Tsubouchi @Energy_Tidbits · 3h

Tropical Storm Debby expected to be Hurricane 1 strength when it hits NW Florida.

Other negative is Debby's movement slowed down from 16 to 13 mph & expected to further slow down.

Slower moving = more time for winds to impact and dump more rain.

Be safe Florida!

...

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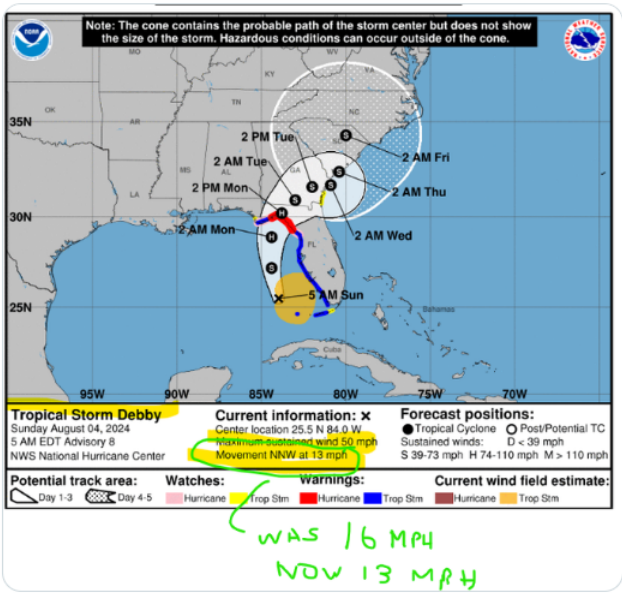


2 2 2.4K

Dan Tsubouchi @Energy_Tidbits · 3h

LIbya said to start partial shutdown of its biggest oil field, Sharara, -30,000 b/d to 230,000 b/d.

Still unknown, full reason for shutdown, how long and if more barrels will be shut in.

No comment yet from @NOC_Libya.

Thx @S_Elwardany

...

Show more

From bloomberg.com

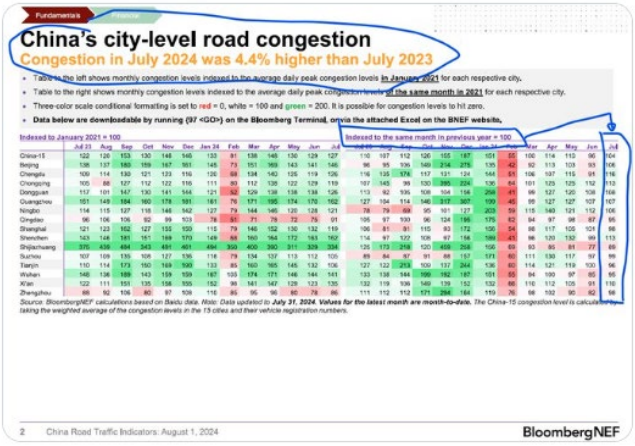
2 1 14 1.1K

Dan Tsubouchi @Energy_Tidbits · 15h

Chinese consumer still on sideline with their summer vacation spending?

July is holiday time. But Baidu city-level road congestion is +4.4% YoY ie. more Chinese staying in cities rather than going on holiday.

Feels like staycation ie. what people do when they want to spend
Show more



2 2 6 1.9K

Dan Tsubouchi @Energy_Tidbits · 18h

Updated @NOAA 6-10 & 8-14 day temperature outlook moves away from hot across all the Lower 48.

But not likely to do much to already low HH #NatGas price of $1.97 despite the hot Jun/July..

Issue remains storage is +252 bcf YoY & above the high end of 5-yr range.

Plus it's
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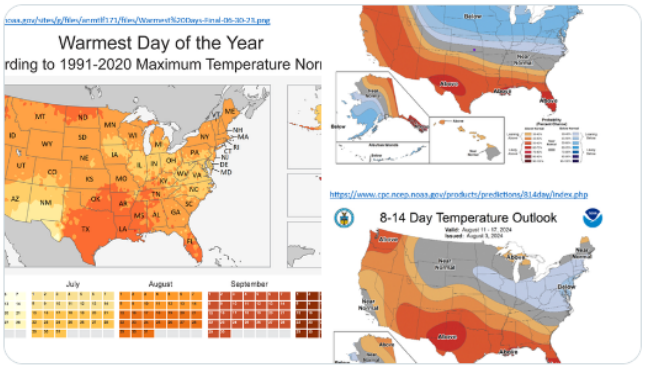

4 2K

Dan Tsubouchi @Energy_Tidbits · 23h

US gasoline prices been marginally lower during summer driving season.

AAA National average prices -$0.03 WoW to $3.48 on Aug 3, -$0.03 MoM and -$0.34 YoY.

California at $4.63 on Aug 3,, which was -$0.02 WoW, -$0.16 MoM & -$0.41 YoY.

Thx @AAAnews

...

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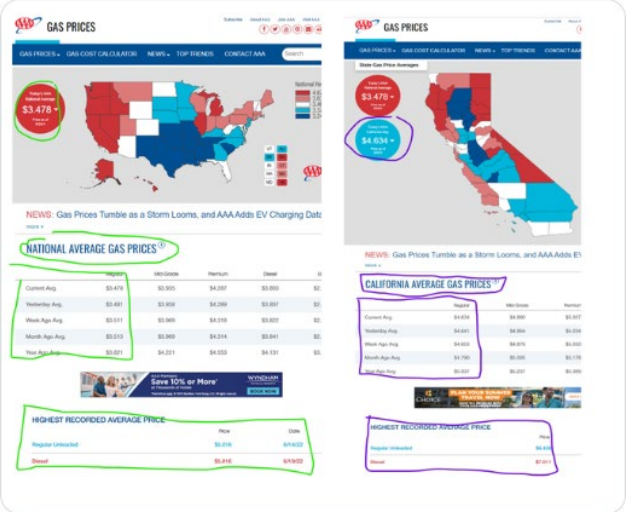


1 2 7 1.9K

Dan Tsubouchi @Energy_Tidbits · Aug 3

To good to be true?

Vortexa #oil floating storage est -24.59 mmb WoW to 56.75 mmb at Aug 2.

Lowest since Covid & only 1 of 3 wks in 50s since Covid.

Always revisions over the week so question is by how much?

But even if revised up into 60s, if subsequent weeks can be in

Show more

4 16 53 17K

Dan Tsubouchi @Energy_Tidbits · Aug 3

Daily Europe air traffic still stuck below pre-Covid

7-day moving average as of:
Aug 1: -1.9% below pre-Covid
Jul 25: -2.2%
Jul 18: -2.6%
Jul 11: -2.9%
Jul 4: -3.3%
Jun 27: -2.9%
Jun 20: -2.5%...

Show more

3 2 2 2.2K

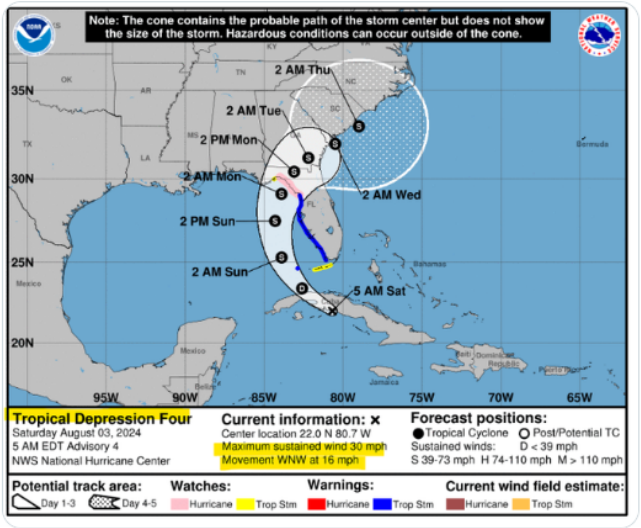
Dan Tsubouchi @Energy_Tidbits · Aug 3

Four is now Tropical Depression strength with 30 mph max sustained winds.

@NHC_Atlantic forecast to reach Tropical Storm strength (max sustained winds 39-73 mph) before making landfall on west Florida early Mon.

Hope it keeps travelling at fast 16 mph to minimize precipitation

Show more



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Dan Tsubouchi @Energy_Tidbits · Aug 2

A key reason why Permian rigs stuck just over 300.

Weak Waha #NatGas prices. -$2.02 WoW to -$1.10 so back to negative at Aug 2 close.

Have bounced in negative at some time every mth since Apr.

Permian #Oil wells produce associated #NatGas. Low or negative Waha prices may not

Show more

1 4 14 2.8K

Dan Tsubouchi @Energy_Tidbits · Aug 2

Clear reminder WTI is driven by much bigger factors than 321 crack spreads.

321 crack -$1.14 WoW to $23.77 on Aug 2

Yet WTI was -$3.64 WoW to $73.52.

WTI was +$0.75 to Wed close of $77.91. But then hammered -$4.39 with broad market crash on Thurs/Fri raising economy worries.

Show more

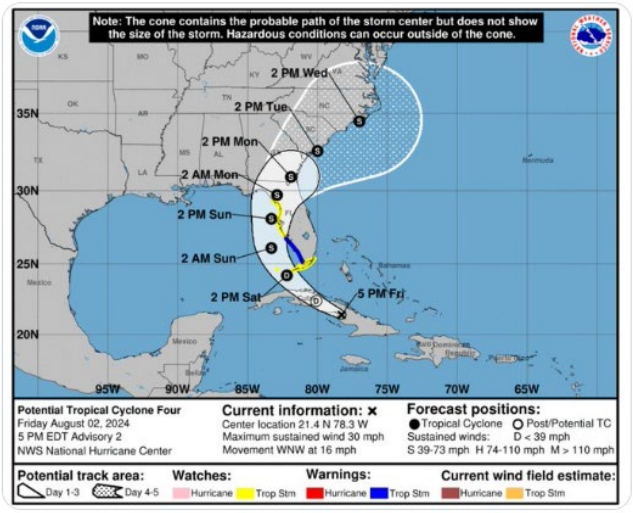
2 3 13 2K

Dan Tsubouchi @Energy_Tidbits · Aug 2

Still not cyclone strength but @NHC_Atlantic forecasts to reach Tropical Depression strength on Sat, then up to Tropical Storm strength before making landfall on west Florida coast on Sun.

Hope it keeps travelling at high 16 mph to minimize precipitation over an area.

#OOTT



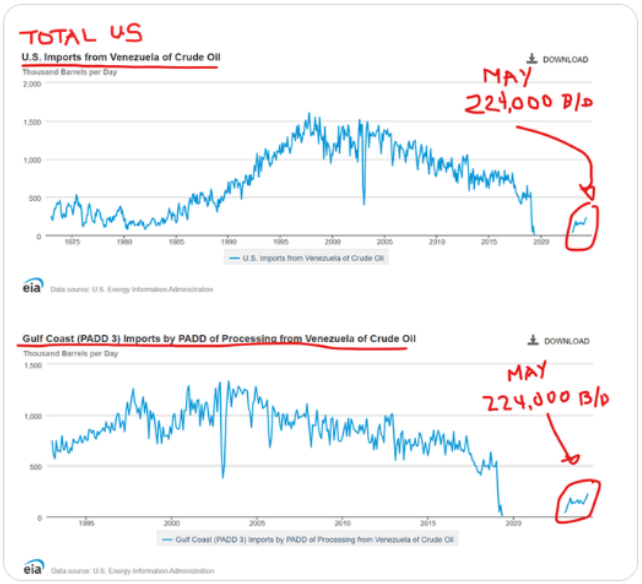
1 1 2 1.2K

Dan Tsubouchi @Energy_Tidbits · 9m

. @EIAgov data show US imported 224,000 b/d from Venezuela in May , all of which was to PADD 3 Gulf Coast refineries.

Highest level since Biden eased off sanctions when Maduro committed to a legitimate election.

What will Biden do now that Blinken says opposition won?
#OOTT



1 273

Dan Tsubouchi @Energy_Tidbits · 5h

Every man for himself.

Game changer in the fast approaching fight for 24/7 reliable, affordable #NatGas power in the US.

Data Centers need reliable 24/7 #NatGas so much, they will buy it from the gas pipeline before the gas gets to LDCs to generate power!!

TC Energy Q2 Q&A
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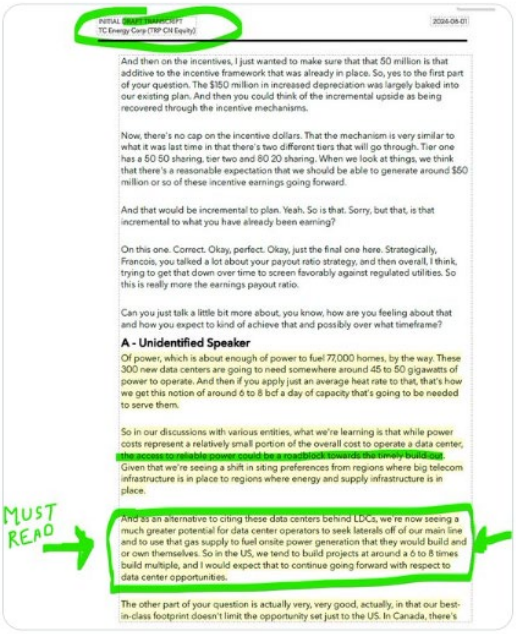


3 10 32 5.6K

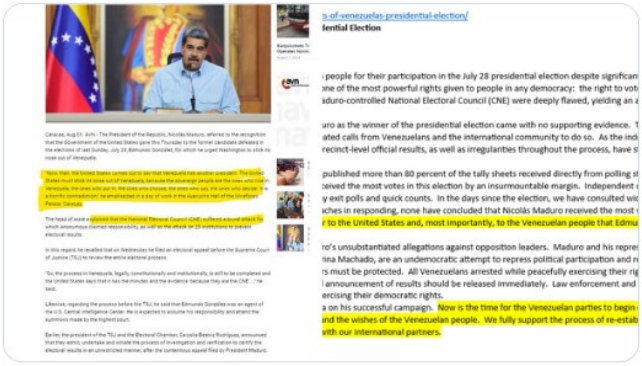
Dan Tsubouchi @Energy_Tidbits · 6h

Maduro tosses ball back in US court.

@SecBlinken "*given the overwhelming evidence, it is clear to the US..... Urrutia won the most votes...*"

Maduro response "*the US should get its nose out of Venezuela*".

If military stays for Maduro & quells any citizens overthrow, what will
Show more



2 1 1.4K

Dan Tsubouchi @Energy_Tidbits · 7h

Two expressions being widely used by PMs/advisors on TV in looking thru today's brutal market.

#WarrenBuffett: in the short run the stock market acts like a “voting machine” while functioning in the long run more like a “weighing machine”

Walter Gretzky to @WayneGretzky "go

Show more

1 · 5 · 1K

Dan Tsubouchi @Energy_Tidbits · 8h

rates down on non farm payroll data. supports the weak data narrative and expectations for three rate cuts #OOTT

2 · 2 · 1K

Dan Tsubouchi @Energy_Tidbits · 8h

Cdn #Oil play advantage.

Cdn **"No Frack"** oil plays like $TVE Clearwater have great economics: payout is fast, IRR is huge and payout original cost 4-5 times.

It's why 🇨🇦 E&P CEOs see their shareholder return models working even if low oil price.

That's before waterflood

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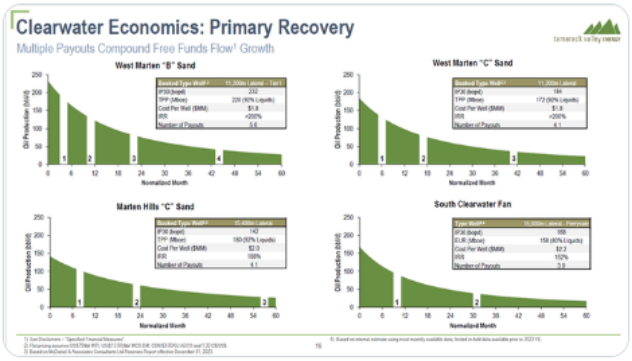

4 · 7 · 32 · 3.3K

Dan Tsubouchi @Energy_Tidbits · 11h

Wayfair CEO consumer home spending warning!

"*Customers remain cautious in their spending on the home, and our credit card data suggests that the* ***category correction now mirrors the magnitude of the peak to trough decline the home furnishing space experienced during the great***

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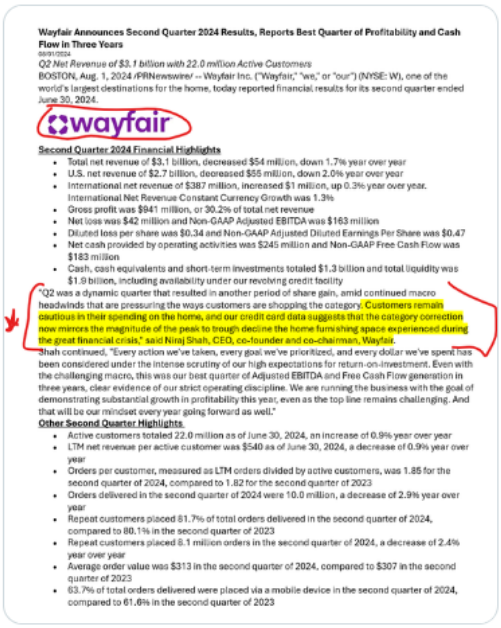


Wayfair Announces Second Quarter 2024 Results, Reports Best Quarter of Profitability and Cash Flow in Three Years

Q2 Net Revenue of $3.1 billion with 22.0 million Active Customers

BOSTON, Aug. 1, 2024 /PRNewswire/ -- Wayfair Inc. ("Wayfair," "we," or "our") (NYSE: W), one of the world's largest destinations for the home, today reported financial results for its second quarter ended June 30, 2024.

wayfair

Second Quarter 2024 Financial Highlights

- Total net revenue of $3.1 billion, decreased $54 million, down 1.7% year over year
- U.S. net revenue of $2.7 billion, decreased $55 million, down 2.0% year over year
- International net revenue of $387 million, increased $1 million, up 0.3% year over year. International Net Revenue Constant Currency Growth was 1.3%
- Gross profit was $941 million, or 30.2% of total net revenue
- Net loss was $42 million and Non-GAAP Adjusted EBITDA was $163 million
- Diluted loss per share was $0.34 and Non-GAAP Adjusted Diluted Earnings Per Share was $0.47
- Net cash provided by operating activities was $245 million and Non-GAAP Free Cash Flow was $183 million
- Cash, cash equivalents and short-term investments totaled $1.3 billion and total liquidity was $1.9 billion, including availability under our revolving credit facility

"Q2 was a dynamic quarter that resulted in another period of share gain, amid continued macro headwinds that are pressuring the ways customers are shopping the category. Customers remain cautious in their spending on the home, and our credit card data suggests that the category correction now mirrors the magnitude of the peak to trough decline the home furnishing space experienced during the great financial crisis," said Niraj Shah, CEO, co-founder and co-chairman, Wayfair.

Shah continued, "Every action we've taken, every goal we've prioritized, and every dollar we've spent has been considered under the intense scrutiny of our high expectations for return-on-investment. Even with the challenging macro, this was our best quarter of Adjusted EBITDA and Free Cash Flow generation in three years, clear evidence of our strict operating discipline. We are running the business with the goal of demonstrating substantial growth in profitability this year, even as the top line remains challenging. And that will be our mindset every year going forward as well."

Other Second Quarter Highlights

- Active customers totaled 22.0 million as of June 30, 2024, an increase of 0.9% year over year
- LTM net revenue per active customer was $540 as of June 30, 2024, a decrease of 0.9% year over year
- Orders per customer, measured as LTM orders divided by active customers, was 1.85 for the second quarter of 2024, compared to 1.82 for the second quarter of 2023
- Orders delivered in the second quarter of 2024 were 10.0 million, a decrease of 2.9% year over year
- Repeat customers placed 81.7% of total orders delivered in the second quarter of 2024, compared to 80.1% in the second quarter of 2023
- Repeat customers placed 8.1 million orders in the second quarter of 2024, a decrease of 2.4% year over year
- Average order value was $313 in the second quarter of 2024, compared to $307 in the second quarter of 2023
- 63.7% of total orders delivered were placed via a mobile device in the second quarter of 2024, compared to 61.6% in the second quarter of 2023

1 6 6 7.5K

Dan Tsubouchi @Energy_Tidbits · 12h

No surprises from #OPEC

As expected, no changes recommended by OPEC+ JMMC.

"*reiterated that the gradual phase-out of the voluntary reduction of oil production could be paused or reversed, depending on prevailing market conditions*"

"*will continue to closely assess market*

Show more

https://www.opec.org/opec_web/en/press_room/7359.htm

55th JMMC Meeting Highlights Commitment to Production Conformity and Continued Oil Market Assessment

No 10/2024
Vienna, Austria
01 Aug 2024

The Joint Ministerial Monitoring Committee (JMMC) reviewed the crude oil production data for the months of May and June 2024 and noted the high overall conformity for participating OPEC and non-OPEC countries of the Declaration of Cooperation (DoC).

The Committee noted the Republic of Iraq, the Republic of Kazakhstan, and the Russian Federation assurance during the meeting to achieve full conformity and welcomed the recent submission of their compensation plans for the overproduced volumes since Jan 2024 to the OPEC Secretariat.

During today's meeting, the member countries that participated in the June 2nd, 2024 meeting in Riyadh along with Oman, reiterated that the gradual phase-out of the voluntary reduction of oil production could be paused or reversed, depending on prevailing market conditions. These countries had announced the extension of the voluntary reduction of oil production by 2.2 million barrels per day until the end of September 2024 and outlined plans for this reduction to be gradually phased out on a monthly basis until the end of September 2025.

The Committee will continue to monitor the conformity of the production adjustments decided at the 37th ONOMM held on the 2nd of June 2024, including the additional voluntary production adjustments announced by some participating OPEC and non-OPEC countries and will continue to closely assess market conditions.

The JMMC retains the authority to convene additional meetings or to request an OPEC and non-OPEC Ministerial Meeting, as outlined during the 37th ONOMM held on the 2nd of June 2024.

The next meeting of the JMMC (56th) is scheduled for 02 October 2024.

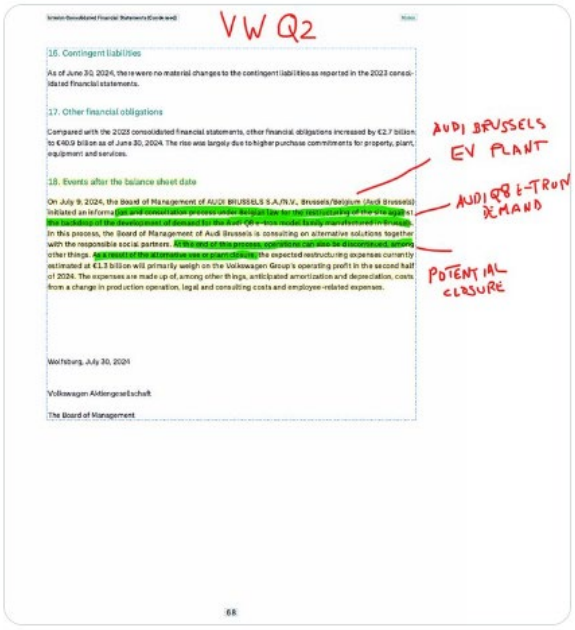
Dan Tsubouchi @Energy_Tidbits · 12h

Volkswagen signals 1st ever plant closure in Europe.

Starts Belgian law process for restructuring of Audi Brussels #EVs plant "*against the backdrop of the development of demand for the Audi Q8 e-tron vehicle manufactured in Brussels*"

€1.3b expense.

Thx @ocrook
#OOTT



1 3 8 1.7K

Dan Tsubouchi @Energy_Tidbits · 22h

Negative China indicator.

Surprise contraction in July following 8 straight mths of expansion for China smaller & export oriented firms.

China Caixin Manufacturing PMI
Jul 49.8 vs Est 51.5
Jun 51.8
May 51.7
Apr 51.4...
Show more

> **Dan Tsubouchi** @Energy_Tidbits · Jul 30
>
> 
>
> 3rd mth of contraction after 2 mths of expansion.
>
> China official National Bureau of Statistics Manufacturing PMI
> ...

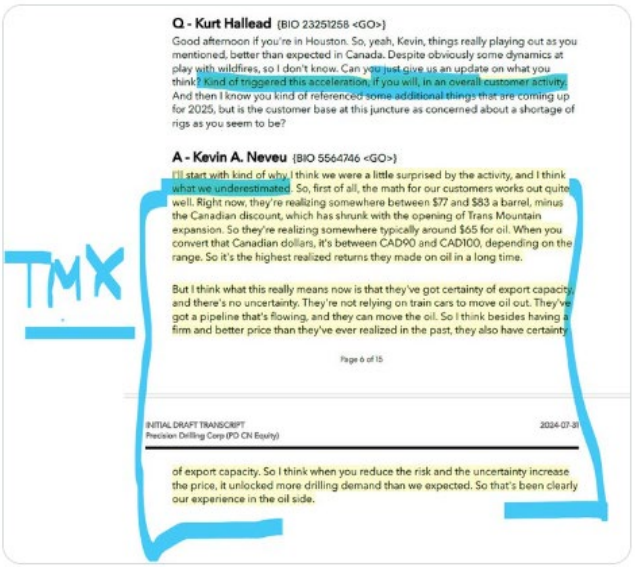
2 2 6 3.8K

Dan Tsubouchi @Energy_Tidbits · Jul 31

TMX is working for Cdn oil producers!

Precision CEO: Cdn heavy oil drilling at higher than expected levels because TMX has narrowed discount (better Cdn prices) + now have certainty of export capacity and NOT be at risk of crude by rail uncertainty.

#OOTT



Q - Kurt Hallead {BIO 23251258 <GO>}

Good afternoon if you're in Houston. So, yeah, Kevin, things really playing out as you mentioned, better than expected in Canada. Despite obviously some dynamics at play with wildfires, so I don't know. Can you just give us an update on what you think? Kind of triggered this acceleration, if you will, in an overall customer activity. And then I know you kind of referenced some additional things that are coming up for 2025, but is the customer base at this juncture as concerned about a shortage of rigs as you seem to be?

A - Kevin A. Neveu {BIO 5564746 <GO>}

I'll start with kind of why I think we were a little surprised by the activity, and I think what we underestimated. So, first of all, the math for our customers works out quite well. Right now, they're realizing somewhere between $77 and $83 a barrel, minus the Canadian discount, which has shrunk with the opening of Trans Mountain expansion. So they're realizing somewhere typically around $65 for oil. When you convert that Canadian dollars, it's between CAD90 and CAD100, depending on the range. So it's the highest realized returns they made on oil in a long time.

But I think what this really means now is that they've got certainty of export capacity and there's no uncertainty. They're not relying on train cars to move oil out. They've got a pipeline that's flowing, and they can move the oil. So I think besides having a firm and better price than they've ever realized in the past, they also have certainty

of export capacity. So I think when you reduce the risk and the uncertainty increase the price, it unlocked more drilling demand than we expected. So that's been clearly our experience in the oil side.

7 22 5.1K

Dan Tsubouchi @Energy_Tidbits · Jul 31

Houthis wildcard.

"we will spare no effort ....in cooperation with our brothers in the axis of jihad and resistance in revenge for the martyr ..... whatever the sacrifices, the inevitable consequence is victory and the demise of the Israeli enemy and its temporary entity"

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Revolution Leader

Revolution leader condoles martyrdom of Commander Ismail Haniyeh

Revolution leader condoles martyrdom of Commander Ismail Haniyeh

[Wed, 31 Jul 2024 21:15:12 +0300]

The Leader of the Revolution, Sayyid. Abdul Malik Badr al-Din al-Houthi, addressed to the family of Commander Ismail Haniyeh, the Islamic Resistance Movement Hamas, all the mujahideen, the Palestinian people and the entire Islamic Ummah with condolences on the martyrdom of Commander Ismail Haniyeh.

The statement reads as follows:
It is with great sadness and sorrow that we received the news of the martyrdom of the great Mujahid brother, the Islamic leader, the martyr of the Islamic nation in general, and the martyr of Palestine and Jerusalem, Ismail Haniyeh, may Allah have mercy on him. We congratulate him on the martyrdom after a long march full of jihad, giving, and great contribution to establishing the structure of the Islamic movement, which raised the banner of jihad and stood effectively and steadily at the forefront of the oppressed, patient and mujahid Palestinian people until it achieved great achievements and became, with the help of the Almighty Allah, a solid and strong front in the face of Zionist criminality Allah. It is a martyrdom for the sake of the Allah, and in this regard, we address to his generous family for the sake of Allah our deepest condolences and sincere sympathy, to the Islamic Resistance Movement Hamas, to all the mujahideen, the Palestinian people and the entire Islamic nation.

The Israeli enemy with the crime of targeting the dear brother Mujahid great Ismail Haniyeh, may Allah have mercy on him, will not achieve any of his hopes to break the resistance and extinguish the jihadist spirit and the steel will of the mujahideen brothers in Palestine and in all fronts of support, but will be a greater incentive for steadfastness and dedication for the sake of Allah Almighty and abuse of the criminal enemy, and the criminal enemy has been involved in targeting the martyr to move the battle to a wider level and greater dimensions whose consequences on the enemy will be Allah and dire, and we will spare no effort, Allah willing and in cooperation with our brothers in the axis of jihad and resistance in revenge for the martyr and all the martyrs and for the oppression of the Palestinian people and to support our dear mujahideen brothers in the Gaza Strip and the Palestinian people who are subjected to genocide committed by the Israeli enemy with American participation over ten months, and whatever the sacrifices, the inevitable consequence is victory and the demise of the Israeli enemy and its temporary entity, and that is a promise Allah Almighty does not succeed Allah his promise, but most people do not know and there is no power or power except in God Almighty, and we belong to God and to Him we return, and enough By Allah and Leah and enough in Allah as a supporter and the consequence for the pious.

Sayyid. Abdulmalik Badr Al-Din Al-Houthi

1 2 981

Dan Tsubouchi @Energy_Tidbits · Jul 31

For those who aren't near their laptop, @EIAgov just released #Oil #Gasoline #Distillates inventory as of July 26 at 8:30am MT. Table below compares EIA data vs @business expectations and vs @APIenergy estimates yesterday. Prior to release, WTI was $77.10. #OOTT

Oil/Products Inventory July 26: EIA, Bloomberg Survey Expectations, API

(million barrels)	EIA	Expectations	API
Oil	-3.44	-1.10	-4.50
Gasoline	-3.67	-1.29	-1.92
Distillates	1.53	-0.90	-0.32
	-5.58	-3.29	-6.74

Note: Oil is commercial. So excludes a +0.7mmb build in SPR for the July 26 week
Note: Included in the oil data, Cushing had a 1.11 mmb draw for July 26 week
Source EIA, Bloomberg
Prepared by SAF Group https://safgroup.ca/news-insights/

1 2 7 1.1K

Dan Tsubouchi @Energy_Tidbits · Jul 31

Massive jump in 👇 PJM prices may not be getting any electricity headlines today as price roll-in won't hit retail electricity bills until 2025.

BUT Constellation Energy +14%, Vistra +16% in pre-market.

Big win for #NatGas #Coal #Nuclear generators feeding in to PJM.

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Jul 30
>
> Buckle up!
>
> *"Power prices on the biggest US power grid are about to hit a record-high amid a wave of plant retirements and surging demand, thanks in part to new data centers being built. ...*
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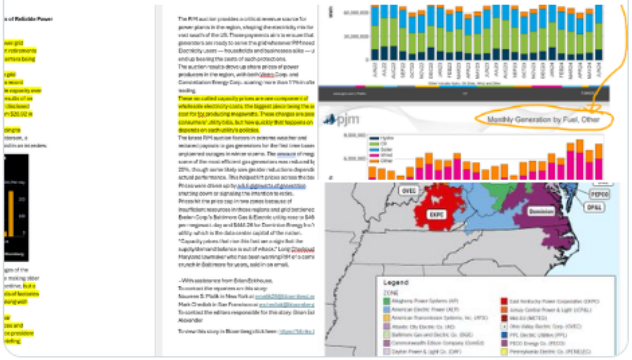
> 
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Dan Tsubouchi @Energy_Tidbits · Jul 31

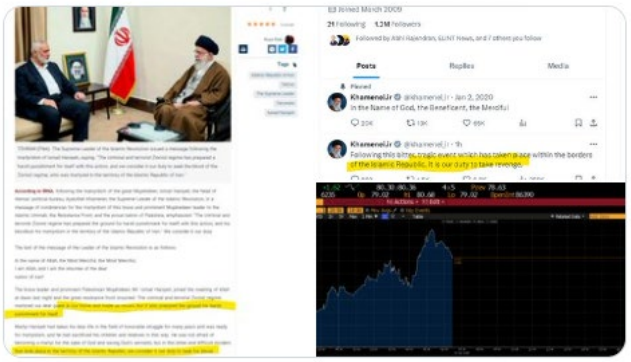
Brent +$1.62 to $80.25.

Iran Supreme Leader response to Israel air strike killing Hamas leader **in Tehran.**

"it is our duty to take revenge"

"also prepared the ground for a severe punishment".

#OOTT #Oil



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Dan Tsubouchi @Energy_Tidbits · Jul 30

Buckle up!

"Power prices on the biggest US power grid are about to hit a record-high amid a wave of plant retirements
and surging demand, thanks in part to new data centers being built.
Generators that provide electricity to the 13-state grid ....will get a record $269.92 per
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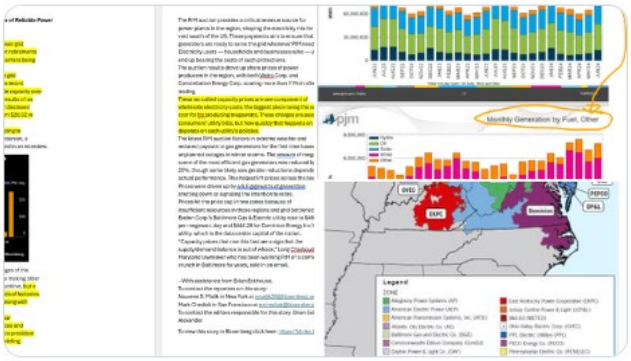


> **Dan Tsubouchi** @Energy_Tidbits · Jun 7
>
> 
>
>
> Data center reality check.
>
> *"if the projected amount of electricity that is going to be needed to power all this .....the capacity that will be built will have to be hydrocarbon based. You cannot ...*

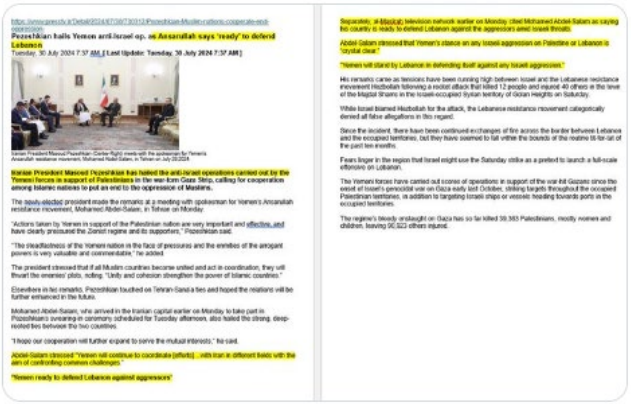
21 43 28K

Dan Tsubouchi @Energy_Tidbits · Jul 30

Houthis remind they will stand with Hezbollah.

"Abdel-Salam stressed that Yemen's stance on any Israeli aggression on Palestine or Lebanon is "crystal clear." "Yemen will stand by Lebanon in defending itself against any Israeli aggression." 👇 PressTV

#OOTT



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Dan Tsubouchi @Energy_Tidbits · Jul 30

3rd mth of contraction after 2 mths of expansion.

China official National Bureau of Statistics Manufacturing PMI

July 49.4. Est 49.4
Jun 49.5
May 49.5
Apr 50.4M
Mar 50.8
Feb 49.1...
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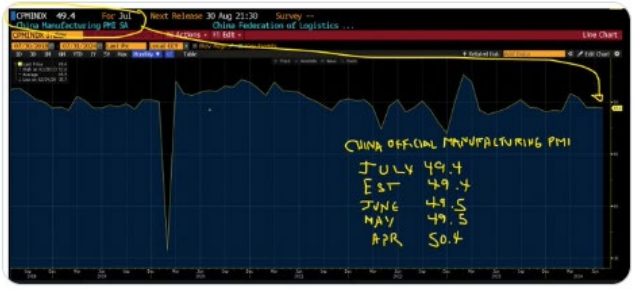

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Dan Tsubouchi @Energy_Tidbits · Jul 30

. @NHC_Atlantic 7-day outlook gives 60% chance for cyclone development. Still early but projected path is north of DR

Reminds of 👇 06/27/24 tweet on decent rule-of-thumb for storms/hurricanes is if path takes it south of Dominican Republic then likely to Yucatan, Gulf Coast or
Show more

> **Dan Tsubouchi** @Energy_Tidbits · Jun 27
>
> 
>
> Hurricane Track Map Rule of Thumb.
>
> Hurricanes that move south of the Dominican Republic are the ones that are likely to hit Yucatan Peninsula or come into the GoM to hit Gulf Coast....

1 1 1.6K

Dan Tsubouchi @Energy_Tidbits · Jul 30

AI Data Center 101: Need #NatGas

Headline $AEP Q2: Have electricity demand for 15 GW for AI data centers **by 2030**, which is ~40% of existing 35 GW total AEP.

Overlooked: Mgmt admits have to add #NatGas generation. Question "..
Your current outstanding RFPs don't have any gas
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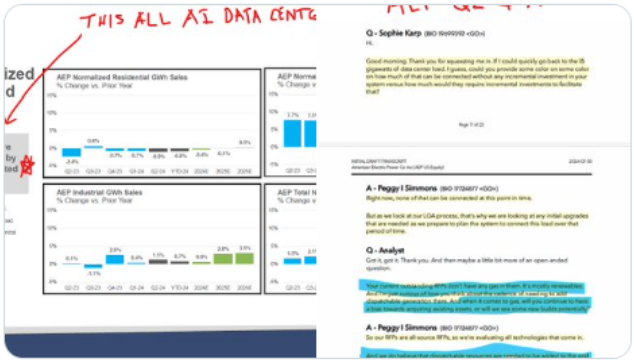

5 7 2.2K

Dan Tsubouchi @Energy_Tidbits · Jul 30

Energy Security Reality Check.

New Zealand to look at reopening ~96,000 b/d Marsden Point #Oil refinery that was shut down in Q2/22 announces @mangonui08.

"*Ensuring New Zealand is a resilient and self-sufficient country is a priority for this government, and a secure and*

Show more

https://www.beehive.govt.nz/release/study-underway-secure-national-fuel-resilience

30 July 2024

Study underway to secure national fuel resilience

Hon Shane Jones

Energy

A study of New Zealand's fuel security, including investigating reopening the Marsden Point refinery, will soon get underway as the Coalition Government seeks to beef up the country's resilience, Associate Energy Minister Shane Jones says.

"Ensuring New Zealand is a resilient and self-sufficient country is a priority for this government, and a secure and reliable fuel supply is critical to this.

"Since Marsden Point was mothballed by the previous government, we have relied on imports for all our liquid fuels, which leaves us completely vulnerable to international supply chain disruptions. Fuel is crucial for keeping our economy running and our communities moving.

"We need to protect ourselves from potential crises at home and overseas and to put measures in place to mitigate and manage adverse impacts.

"Through the study, we will have a clearer idea where we stand domestically and the resilience of the fuel supply chains into our country so we can make a robust plan to ensure a secure fuel supply," Mr Jones says.

Following a procurement process, Ministry of Business, Innovation and Employment (MBIE) has appointed Envisory, with support from Castalia, to undertake the fuel security study.

The study will involve looking at New Zealand's fuel demand forecast, engaging with stakeholders across the fuel supply chain, providing advice regarding reopening Marsden Point refinery, and mapping potential disruptions to the supply chain.

Envisory demonstrated a strong understanding of New Zealand's fuel industry and supply chains, as well as expertise in delivering fuel security work here, according to MBIE.

"While the study will provide valuable insight in the impact of an extended fuel supply shortage and effects on domestic fuel distribution, it will specifically investigate the strategic importance of the infrastructure at Marsden Point and the role it could play in underpinning New Zealand's fuel resilience," Mr Jones says.

The study is a National-NZ First coalition priority, and its findings will support the development of a fuel security plan. An interim report investigating the reopening of Marsden Point refinery is due before the end of 2024.

The Government has other work underway to increase fuel resilience, including finalising changes to the minimum fuel stockholding obligations regime, exploring options for bolstering domestic diesel resilience, and working with industry on their plans to increase jet fuel resilience at Auckland Airport.

> **Dan Tsubouchi** @Energy_Tidbits · Jun 9
>
> 
>
> Big Reality Check!
>
> "*Natural gas is critical to keeping our lights on and our economy running, especially during peak electricity demand and when generation dips ...*

1 4 4 1.6K

Dan Tsubouchi @Energy_Tidbits · Jul 30

Air New Zealand tidbit.

Prior to becoming New Zealand Prime Minister, Christopher Luxon was CEO Air New Zealand 2013 to 2019.

#OOTT

> **Dan Tsubouchi** @Energy_Tidbits · Jul 30
>
> Surely, other airlines have to follow?
>
> *"Air New Zealand is removing its 2030 science based carbon intensity reduction target and will withdraw from the Science Based Targets initiative....*
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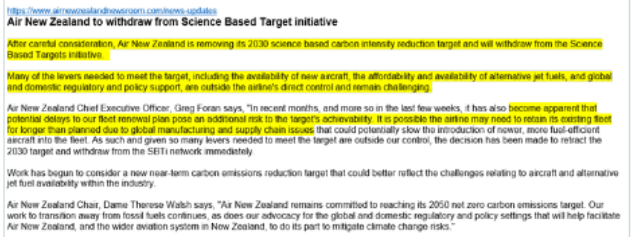
> 
> https://www.airnewzealandnewsroom.com/news-updates
> **Air New Zealand to withdraw from Science Based Target initiative**
>
> After careful consideration, Air New Zealand is removing its 2030 science based carbon intensity reduction target and will withdraw from the Science Based Targets initiative.
>
> Many of the levers needed to meet the target, including the availability of new aircraft, the affordability and availability of alternative jet fuels, and global and domestic regulatory and policy support, are outside the airline's direct control and remain challenging.
>
> Air New Zealand Chief Executive Officer, Greg Foran says, "In recent months, and more so in the last few weeks, it has also become apparent that potential delays to our fleet renewal plan pose an additional risk to the target's achievability. It is possible the airline may need to retain its existing fleet for longer than planned due to global manufacturing and supply chain issues that could potentially slow the introduction of newer, more fuel-efficient aircraft into the fleet. As such and given so many levers needed to meet the target are outside our control, the decision has been made to retract the 2030 target and withdraw from the SBTi network immediately.
>
> Work has begun to consider a new near-term carbon emissions reduction target that could better reflect the challenges relating to aircraft and alternative jet fuel availability within the industry.
>
> Air New Zealand Chair, Dame Therese Walsh says, "Air New Zealand remains committed to reaching its 2050 net zero carbon emissions target. Our work to transition away from fossil fuels continues, as does our advocacy for the global and domestic regulatory and policy settings that will help facilitate Air New Zealand, and the wider aviation system in New Zealand, to do its part to mitigate climate change risks."

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Dan Tsubouchi @Energy_Tidbits · Jul 30

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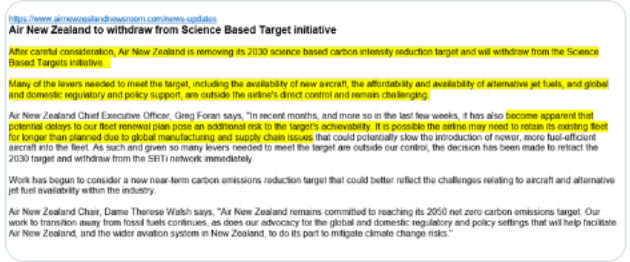
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> **Dan Tsubouchi** @Energy_Tidbits · Jul 23
>
> Sustainable Aviation Fuel is up to 6X cost of jet fuel.
>
> *"Plans to offer low-carbon flights reliant upon sustainable aviation fuel (SAF), which costs up to six times as much as traditional kerosene, will have a "big impact" on prices, said Luis Gallego. He said: "Flying is ...*

5 · 13 · 4.4K

Dan Tsubouchi @Energy_Tidbits · Jul 30

Cautious US consumer.

Diageo shares -8%

Don Julio, Johnny Walker, Crown Royal, etc.

Biggest hit was Latin America

But CEO Crew highlighted "*We are faced with a challenging US environment like many other consumer-facing companies. We're calling it a very, a ...*
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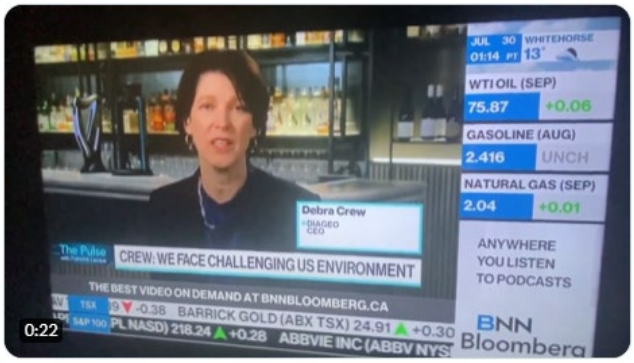

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Dan Tsubouchi @Energy_Tidbits · Jul 30

Negative indicator to China recovery

4th consecutive mth of negative net monthly foreign direct investment flows.

US$b
June: -0.44
May: -4.50
Apr: -5.99
Mar: -0.9...
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1 · 1 · 6 · 2.1K

Dan Tsubouchi @Energy_Tidbits · Jul 29

Ammonia/Hydrogen 101 from Vopak Q2.

Ammonia projects being pushed out or postponed.

Ammonia is a carrier of hydrogen.

Focus is Low Carbon ammonia that comes from Low Carbon hydrogen.

Ammonia imports to be from Middle East & US, which means will carry Blue #NatGas Hydrogen

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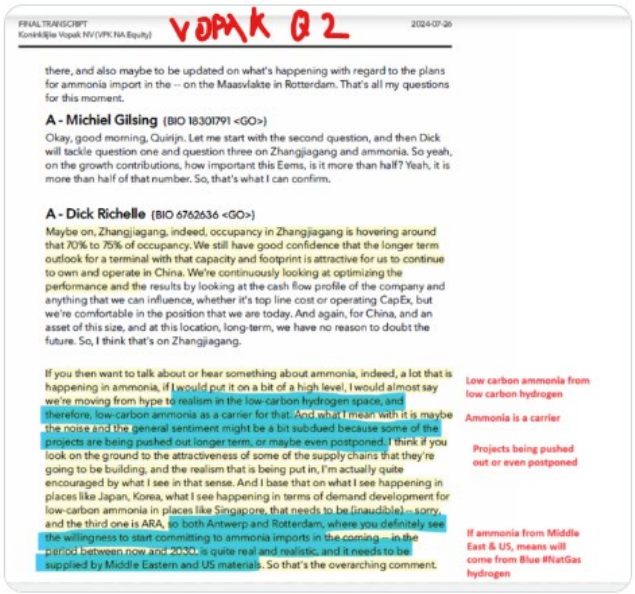

FINAL TRANSCRIPT — 2024-07-26
Koninklijke Vopak NV (VPK NA Equity)

VOPAK Q2

there, and also maybe to be updated on what's happening with regard to the plans for ammonia import in the -- on the Maasvlakte in Rotterdam. That's all my questions for this moment.

A - Michiel Gilsing {BIO 18301791 <GO>}

Okay, good morning, Quirijn. Let me start with the second question, and then Dick will tackle question one and question three on Zhangjiagang and ammonia. So yeah, on the growth contributions, how important this Eems, is it more than half? Yeah, it is more than half of that number. So, that's what I can confirm.

A - Dick Richelle {BIO 6762636 <GO>}

Maybe on, Zhangjiagang, indeed, occupancy in Zhangjiagang is hovering around that 70% to 75% of occupancy. We still have good confidence that the longer term outlook for a terminal with that capacity and footprint is attractive for us to continue to own and operate in China. We're continuously looking at optimizing the performance and the results by looking at the cash flow profile of the company and anything that we can influence, whether it's top line cost or operating CapEx, but we're comfortable in the position that we are today. And again, for China, and an asset of this size, and at this location, long-term, we have no reason to doubt the future. So, I think that's on Zhangjiagang.

If you then want to talk about or hear something about ammonia, indeed, a lot that is happening in ammonia, if I would put it on a bit of a high level, I would almost say we're moving from hype to realism in the low-carbon hydrogen space, and therefore, low-carbon ammonia as a carrier for that. And what I mean with it is maybe the noise and the general sentiment might be a bit subdued because some of the projects are being pushed out longer term, or maybe even postponed. I think if you look on the ground to the attractiveness of some of the supply chains that they're going to be building, and the realism that is being put in, I'm actually quite encouraged by what I see in that sense. And I base that on what I see happening in places like Japan, Korea, what I see happening in terms of demand development for low-carbon ammonia in places like Singapore, that needs to be [inaudible] -- sorry, and the third one is ARA, so both Antwerp and Rotterdam, where you definitely see the willingness to start committing to ammonia imports in the coming -- in the period between now and 2030, is quite real and realistic, and it needs to be supplied by Middle Eastern and US materials. So that's the overarching comment.

Low carbon ammonia from low carbon hydrogen

Ammonia is a carrier

Projects being pushed out or even postponed

If ammonia from Middle East & US, means will come from Blue #NatGas hydrogen

2 1 4 3.1K

Dan Tsubouchi @Energy_Tidbits · Jul 29

Biofuels: short and medium-term economics not looking that great.

"*so the renewable diesels, and sustainable aviation fuel that there's quite a bit of pressure on the capacity that is in the market. And the economics, medium-term and short-term, are not looking that great*"

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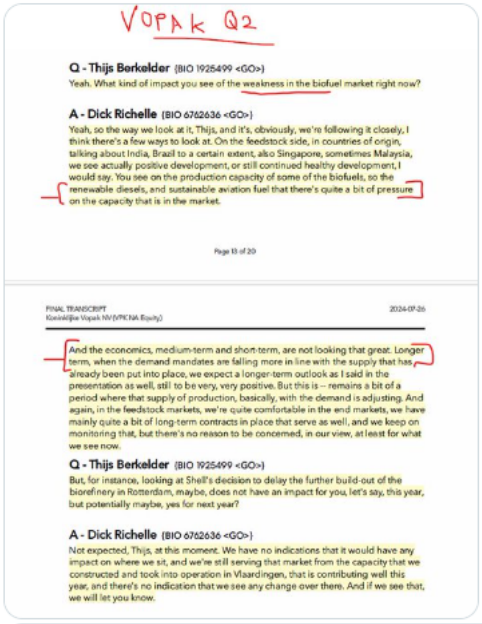

VOPAK Q2

Q - Thijs Berkelder {BIO 1925499 <GO>}

Yeah. What kind of impact you see of the weakness in the biofuel market right now?

A - Dick Richelle {BIO 6762636 <GO>}

Yeah, so the way we look at it, Thijs, and it's, obviously, we're following it closely, I think there's a few ways to look at. On the feedstock side, in countries of origin, talking about India, Brazil to a certain extent, also Singapore, sometimes Malaysia, we see actually positive development, or still continued healthy development, I would say. You see on the production capacity of some of the biofuels, so the renewable diesels, and sustainable aviation fuel that there's quite a bit of pressure on the capacity that is in the market.

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FINAL TRANSCRIPT — 2024-07-26

Koninklijke Vopak NV (VPK NA Equity)

And the economics, medium-term and short-term, are not looking that great. Longer term, when the demand mandates are falling more in line with the supply that has already been put into place, we expect a longer-term outlook as I said in the presentation as well, still to be very, very positive. But this is -- remains a bit of a period where that supply of production, basically, with the demand is adjusting. And again, in the feedstock markets, we're quite comfortable in the end markets, we have mainly quite a bit of long-term contracts in place that serve as well, and we keep on monitoring that, but there's no reason to be concerned, in our view, at least for what we see now.

Q - Thijs Berkelder {BIO 1925499 <GO>}

But, for instance, looking at Shell's decision to delay the further build-out of the biorefinery in Rotterdam, maybe, does not have an impact for you, let's say, this year, but potentially maybe, yes for next year?

A - Dick Richelle {BIO 6762636 <GO>}

Not expected, Thijs, at this moment. We have no indications that it would have any impact on where we sit, and we're still serving that market from the capacity that we constructed and took into operation in Vlaardingen, that is contributing well this year, and there's no indication that we see any change over there. And if we see that, we will let you know.

> **Dan Tsubouchi** @Energy_Tidbits · Jul 23
>
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>
> "*Plans to offer low-carbon flights reliant upon sustainable aviation fuel (SAF), which costs up to six times as much as traditional kerosene, will have a "big impact" on prices, said Luis Gallego. He said: "Flying is ...*