



RBN U.S. Propane Billboard

U.S. Propane Market Update & Outlook

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March 10, 2025

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U.S. PROPANE SUPPLY & DEMAND

Table A:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	3,165	3,296	3,193	2,974	3,317	3,226	3,351	2,512	2,532	2,452	2,529	2,547	2,560	2,574
Gas Plants	2,822	2,915	2,831	2,646	2,959	2,880	2,994	2,240	2,239	2,174	2,250	2,273	2,286	2,300
Refinery	343	381	362	328	358	345	357	272	293	278	279	275	274	274
Imports	160	206	186	170	169	98	100	127	158	143	144	130	78	77
TOTAL SUPPLY	3,325	3,502	3,378	3,144	3,485	3,323	3,451	2,639	2,690	2,595	2,673	2,677	2,638	2,651
Demand (Prod. Supplied)	999	1,525	1,855	1,533	1,113	807	654	793	1,171	1,425	1,303	855	641	503
Exports	2,535	2,444	2,509	2,303	2,441	2,328	2,420	2,012	1,877	1,927	1,958	1,875	1,847	1,859
Stock Change	(209)	(472)	(992)	(568)	(69)	189	377	(166)	(363)	(762)	(483)	(53)	150	289
TOTAL DISPOSITION	3,325	3,496	3,372	3,268	3,485	3,323	3,451	2,639	2,685	2,590	2,778	2,677	2,638	2,651
TOTAL INVENTORY*	3.9	3.4	2.4	1.9	1.8	2.0	2.4	92.7	81.4	57.8	44.3	42.7	47.2	56.1

* Inventories are shown in billion gallons and million barrels, respectively.

MONTHLY HIGHLIGHTS

- U.S. propane inventories declined by 11.3 Mbbl in December 2024, compared to a 10.5-MMbbl withdrawal in December 2023 and the 12.1-Mbbl 5-year average draw for the month. Storage levels started the month above the five-year high and given the average withdrawal ended the month the same way. Initial weekly estimates for January show a very strong draw of 23.6 MMbbl vs. the five-year average of 13.1 MMbbl. The strong draws continued into February: initial estimates show a draw of 13.5 MMbbl, on par with the five-year average and above 2024's 10.2 MMbbl.
- Propane exports in December came down from November's high of 2 MMb/d. At 1.88 MMb/d, December exports were still the second highest on record. Data from RBN's NGL Voyager estimates propane exports at 1.93 MMb/d in January and 1.96 MMb/d in February.
- Propane prices increased further in February, averaging 92.0 c/gal, up from 89.9 c/gal the previous month. This increase occurred during a month when WTI prices fell \$4.10/bbl due to uncertainty in the markets. As a result, the crude-to-propane ratio surged from 52% on February to nearly 59% on February 28.
- The arb to Asia is currently closed. Economics have been hampered by the high price of propane in the U.S. and a fall in propane prices in Asia. Freight and terminal fees have fallen but not by a large enough amount to keep economics positive.
- With the U.S. tariffs on Canadian goods delayed another month, there is still a lot of uncertainty in the market. In either a tariff or a no-tariff case, our forecast will not be affected. The areas of the country that take Canadian propane either do so because they do not have viable economic alternative sources or because Canada has no other outlets than to the U.S. As a result, we expect that flows will remain relatively unchanged.
- MPLX has announced an extension of the BANGL pipeline from Sweeny, Texas to Texas City. At the terminus of this pipeline, the company will build and fully own two 150-Mb/d fractionators. They will also construct a new LPG export terminal at Texas City in a JV with ONEOK (MPLX will operate) with a capacity of 400 Mb/d. In an 80/20 JV (ONEOK owning the larger share and operating), the two companies will build a new, 24-inch-diameter, bidirectional purity products line between ONEOK's Mont Belvieu storage and the new export terminal.
- Targa has announced the development of two, new 150-Mb/d fractionation units at Mont Belvieu. Train 11 is scheduled to come online in Q3 2026, and Train 12 in Q1 2027. They will also complete a debottlenecking project in Q4 of 2025 that will increase exports out of Galena Park by 650 Mb/d month or 32 Mb/d. By Q3 2027, the company plans to add an additional 4 MMb/month (133 Mb/d) to its terminal.

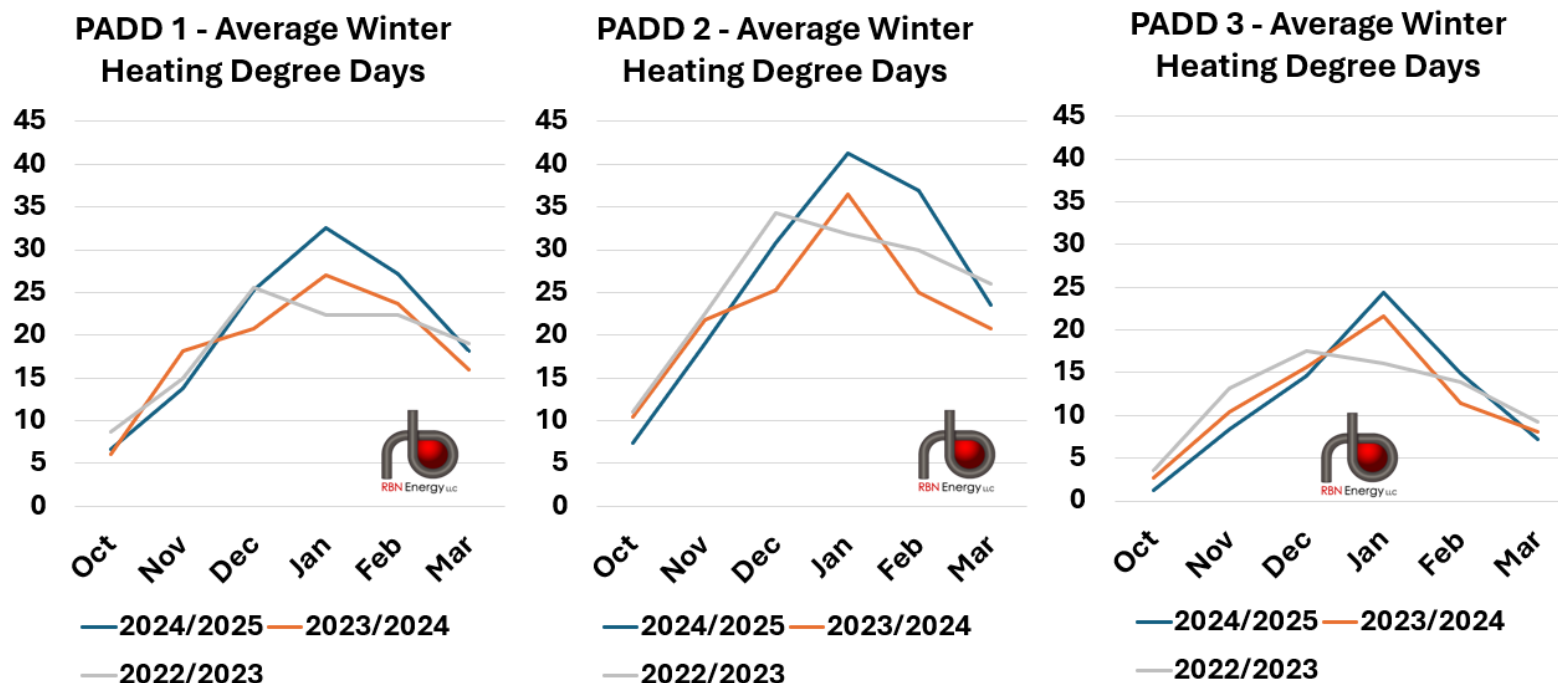
MONTHLY PROPANE MARKET SPOTLIGHT

HEATING DEGREE DAYS HIGH IN JANUARY AND FEBRUARY

As recently as December, the primary discussion for the propane market was the level of storage. It was substantially higher than the five-year average and above the previous records set in 2023. January and February took care of that surplus. U.S. storage is now below the five-year average, having fallen an estimated 37 MMbbl between December and end-February. Stock declines in PADDs 1, 2 and 3 were the largest. Stocks in PADD 1 are well below their five-year range and stocks in PADD 2 are only slightly above the five-year minimum. PADD 3 stocks are slightly below the five-year average.

These sharp changes in storage levels are a result of the cold winter experienced during the first two months of the year. The three charts below show the average number of heating degree days by month for the October-through-March season. (Note that March is a forecast.) The blue line shows that weather in January and February was the coldest of the three years shown. January 2025 was even colder than January 2024, when the largest storage draw on record was recorded. The storm in the previous year was very acute ... very cold weather for a limited number of days. The storms this year were more spread out and lasted longer. They also had a lot of snow (even in parts of PADD 3), which made delivering propane to rural areas challenging.

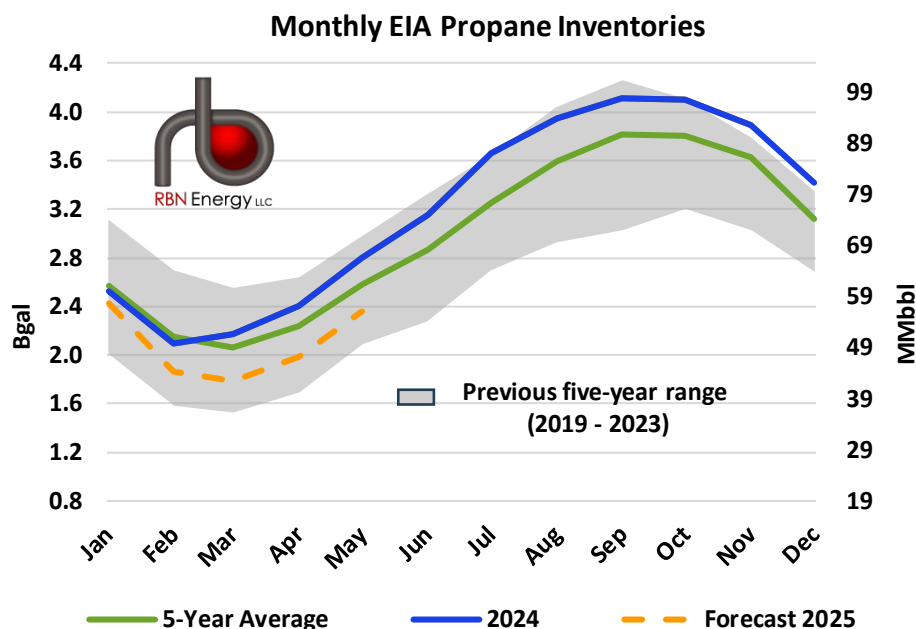
The forecast for 2025 shows storage rebuilding throughout the spring. However, with limited upside on production, the storage build could come at the expense of exports. The arbitrage window is currently closed as U.S. prices have stayed high while Asian prices have gone down. (See Page 9 for a discussion of arbitrage economics.)



U.S. PROPANE INVENTORIES

Table B: MM gal							M bbl					
	MONTHLY EIA			ESTIMATED		FORECAST	MONTHLY EIA			ESTIMATED		FORECAST
	Nov-24	Dec-24	M/M	Jan-25	Feb-25	Mar-25	Nov-24	Dec-24	M/M	Jan-25	Feb-25	Mar-25
PADD 1 (East Coast)	357	279	(78)	136	106	115	8,509	6,646	(1,863)	3,247	2,532	2,743
PADD 2 (Midwest)	1,106	926	(180)	625	434	397	26,330	22,052	(4,278)	14,887	10,333	9,448
PADD 3 (Gulf Coast)	2,208	2,010	(198)	1,506	1,221	1,201	52,576	47,868	(4,708)	35,854	29,071	28,599
PADD 4 (Rocky Mountains)	127	117	(9)	93	53	48	3,016	2,793	(223)	2,221	1,268	1,136
PADD 5 (West Coast)	95	88	(7)	68	47	31	2,261	2,088	(173)	1,625	1,107	749
TOTAL PROPANE	3,893	3,421	(472)	2,429	1,861	1,792	92,692	81,447	(11,245)	57,834	44,311	42,675
Propylene	61	58	(4)	58	81	82	1,459	1,372	(87)	1,372	1,932	1,949
TOTAL INVENTORIES	3,954	3,478	(476)	2,487	1,942	1,874	94,151	82,819	(11,332)	59,206	46,243	44,624

Figure 1.1



Source: EIA, RBN Forecast

ANALYSIS & INSIGHTS

Total U.S. propane inventories fell by 11.3 MMbbl in December, compared to a 10.5-MMbbl draw in 2023 and the 12.1 MMbbl 5-year average (2019-23) withdrawal for the month. Total U.S. propane stocks at month-end December were 81.4 MMbbl (3.4 Bgal), which is 1.8 MMbbl, or 2%, above December 2023 and 7.1 MMbbl (10%) above the 5-year average. Initial estimates for U.S. storage show that January was below 2024 levels, ending at 57.8 MMbbl, 4% lower than a year ago. February levels are also well below last year and the five-year average. PADD 1 storage fell in December, decreasing by 1.9 MMbbl, or 22%, to 6.6 MMbbl. PADD 2 storage fell by 4.3 MMbbl, or 16%. PADD 3 storage experienced a draw of 4.7 MMbbl, a decrease of 9% to 47.9 MMbbl. Stocks in PADD 4 decreased by 223 Mbbl to 2.8 MMbbl, and stocks in PADD 5 decreased by 173 Mbbl to 2.1 MMbbl.

INVENTORY OUTLOOK

Heading into 2025, storage levels were full, above the five-year high and 2024 levels. With the cold weather at the start of January and into February, storage levels have plunged to the lower portion of the five-year range. Storage in PADDs 1 and 2 is very low. Storage in PADD 3 is below the five-year average. March is likely to bring another draw, though it is will probably be on the smaller side. Storage builds are forecast throughout the year; however, without big increases in production, the storage builds may have to come at the expense of exports. But if the arb stays closed that may be easy to achieve.

PROPANE MARKET UPDATE

PROPANE PRICES STRONGER IN FEBRUARY DESPITE LOWER CRUDE OIL PRICES

The Mont Belvieu propane price ratio to WTI increased in February, going from 50% in January to average 54% in February. In the early days of March, the ratio has remained steady at 54% though prices have gone down due to the drop in crude oil. The cold weather experienced during January, February and so far at the start of March has kept the propane-to-crude ratio higher. February propane prices averaged roughly 92.4 c/gal, up from 89.8 c/gal in January.

WTI crude oil prices averaged slightly above \$71/bbl in February, down roughly \$4/bbl from January levels. Crude oil prices in early March were down to about \$66/bbl. This highlights the strength in propane prices in February. Sentiment in the crude oil market shifted more bearish, with concerns raised about the OPEC+ decision to increase crude oil production in the coming months along with uncertainty around the economy.

The forward curve (Figure 1.3) as of March 3 was lower than February but on par with January. The March 2025 contract was trading at 84.7 c/gal in early March compared to 88.8 c/gal in early February. The curve indicates that prices will remain elevated in March before falling into the spring months. This nicely shaped curve may not be an accurate predictor of propane spot prices, which will vary greatly depending on weather and export levels.

Figure 1.2

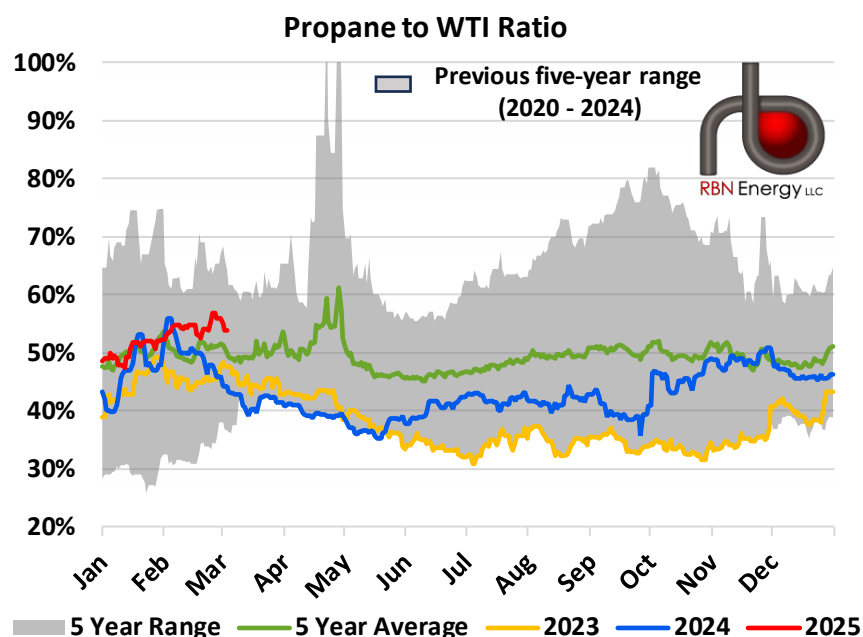
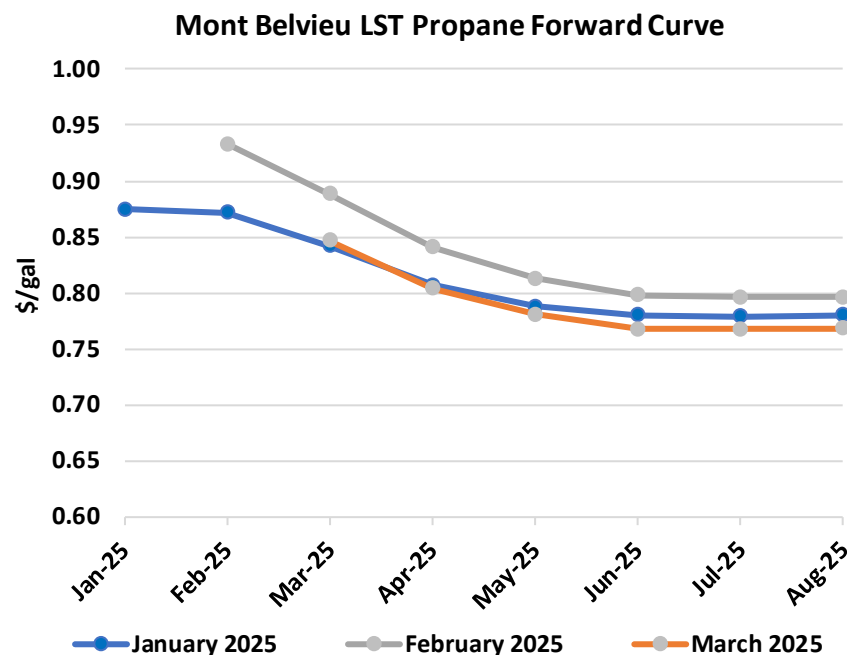


Figure 1.3



CONWAY VS. MONT BELVIEU PROPANE PRICES

CONWAY PRICE DISCOUNT TO MONT BELVIEU NARROWS

Conway spot propane's (OPIS) premium to Mont Belvieu Non-TET (Figure 2.5) averaged 1.3 c/gal during February, compared to a 0.6 c/gal premium in January and a 3.3 c/gal premium in December. This represents a narrowing of the spread compared to recent months and puts the spread below last year's level. So far in March, the spread has narrowed again to 0.9 c/gal, reflecting the early-March storm in the Midwest.

CONWAY - BELVIEU PROPANE FORWARD CURVE ANALYSIS

Figure 2.6 shows the propane forward price curves for Conway (blue line) and Mont Belvieu (red line) on the left-hand axis. The gray area is the differential or spread between the two prices on the right axis. The Mont Belvieu-Conway price spread is a good indicator whether the market is incenting barrels to flow from PADD 2 to PADD 3 (export demand pull) or keep barrels in the Midwest to meet domestic demand.

The forward curves as of March 5 project Mont Belvieu TET prices to trade at less than 1 c/gal above Conway prices in March. The spread widens in March to 1.8 c/gal and goes higher through the summer months. In December 2025, the forward curve shows the spread between Belvieu and Conway going negative, indicating Conway prices will be above Belvieu prices. The following spring, prices are forecast to flip yet again.

Mont Belvieu prices are typically higher than Conway prices during the summer months to incentivize flows from Conway to Belvieu. However, as shown in the chart on Page 12, storage levels in PADD II are low, and a rebuild in the summer months is required to keep the market balanced.

Figure 2.5

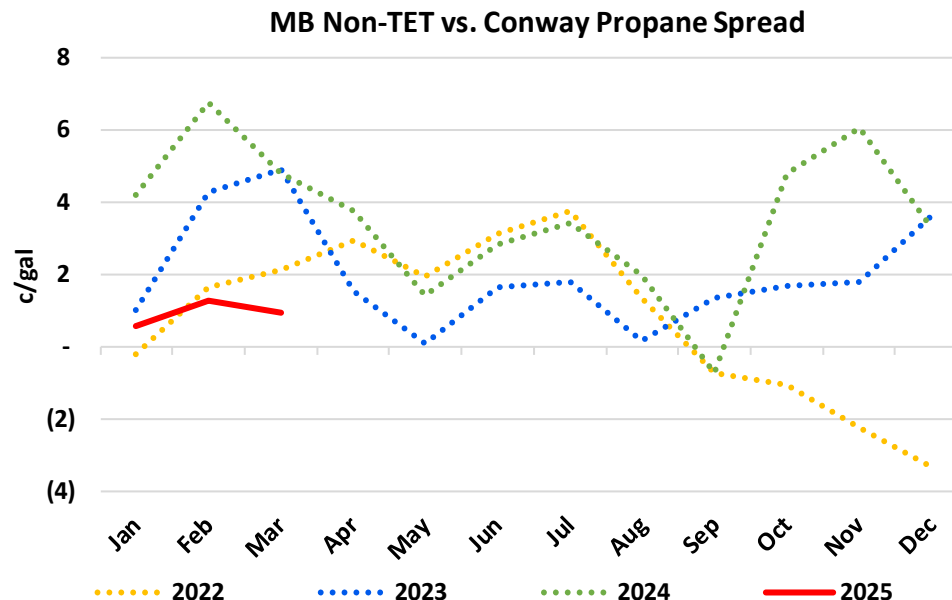
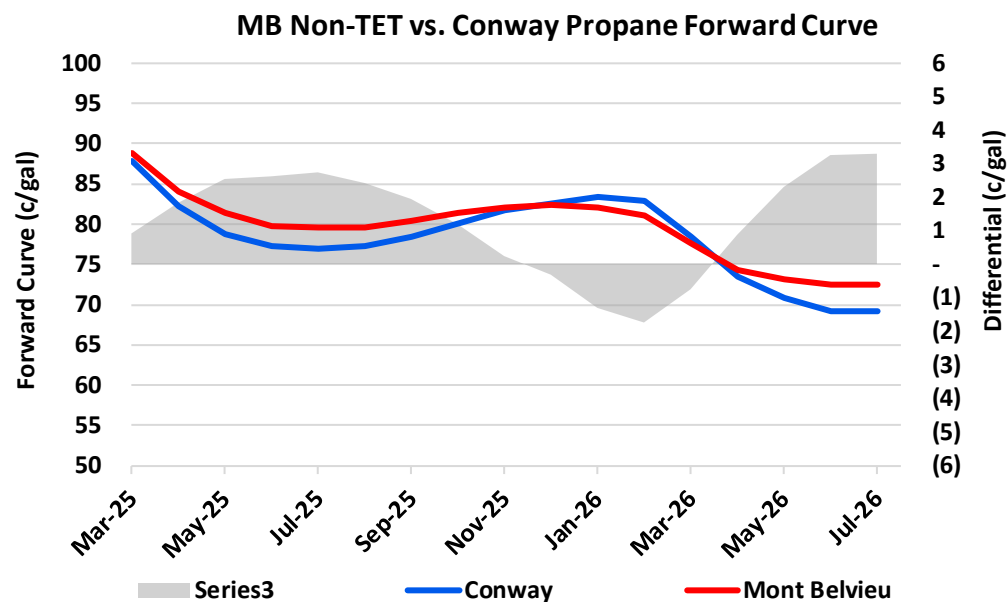


Figure 2.6



U.S. PROPANE DEMAND

Table C:	MM gal / month						M bbl / day					
	MONTHLY			ESTIMATED		FORECAST	MONTHLY			ESTIMATED		FORECAST
	Nov-24	Dec-24	M/M	Jan-25	Feb-25		Nov-24	Dec-24	M/M	Jan-25	Feb-25	
ResCom	600	810	210	947	766	689	476	622	146	727	651	529
Crop Drying	147	111	(36)	67	52	38	117	85	(31)	52	44	29
Industrial	94	113	19	121	101	96	74	87	12	93	86	73
Petrochemicals	257	266	9	266	242	266	204	204	0	205	205	205
PDH	113	117	4	143	129	143	90	90	-	110	110	110
Balancing	(212)	107	319	310	243	(380)	(168)	83	251	238	207	(292)
TOTAL PROPANE	999	1,525	525	1,855	1,533	852	793	1,171	378	1,425	1,303	655
Propylene	374	384	10	331	279	343	297	295	(2)	254	237	263
TOTAL DEMAND **	1,373	1,909	535	2,186	1,811	1,195	1,090	1,466	376	1,679	1,540	918
Weekly***	1,330	1,799	469	2,053	1,705		1,056	1,382	326	1,577	1,450	
Variance	(43)	(110)	(67)	(133)	(107)		(34)	(84)	(50)	(102)	(91)	

* EIA reports propane product supplied in monthly data, while weekly data includes propylene.

** Total Demand** is the equivalent of product supplied as reported by the EIA.

*** EIA monthly product supplied through December 2024, weekly through the week of February 28, 2024.

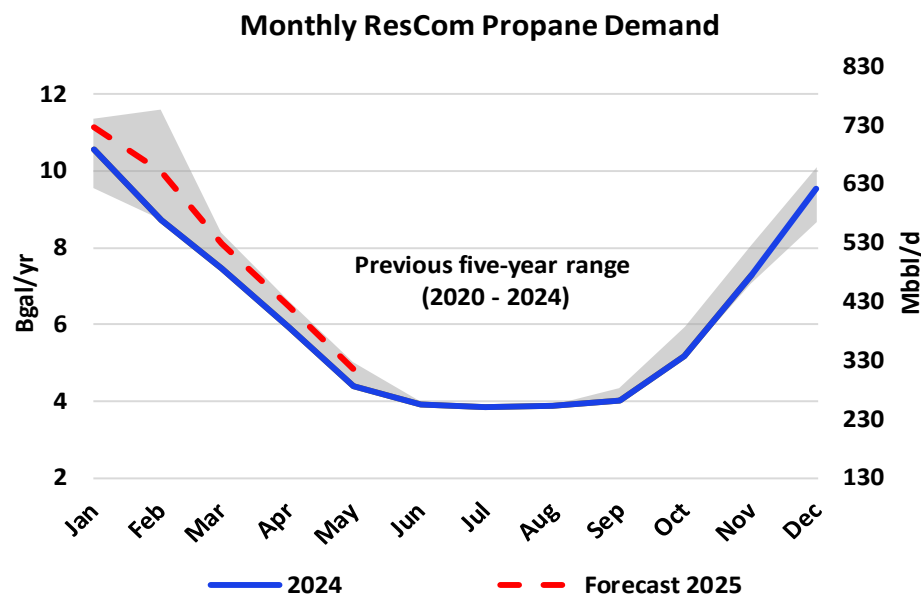
Figure 3.1

RESIDENTIAL & COMMERCIAL DEMAND UP

Figure 3.1 shows our current forecast for Residential & Commercial (“ResCom”) demand through May 2025. ResCom demand was stronger in December at 622 Mb/d (810 MMgal/m), up 146 Mb/d from November. Crop drying is down until the next harvest later in 2025.

PETCHEM DEMAND AND PDH UP SLIGHTLY

Petchem demand for propane was slightly higher in December at 266 Mb/d as cracker operating rates crept up a bit and the percentage of feedstock from propane was flat. In February, cracker propane margins were higher than in January, averaging 8.8 c/lb in January compared to 10.3 c/lb in February. Margins were at a high of 30 c/lb in mid-September. Ethane margins were down in February, averaging 21.9 c/lb versus 23.2 c/lb in January. Margins for butane cracking were positive in February. Margins for naphtha/natural gasoline were negative in December and January but turned positive in February. Demand from PDH units was up as operating rates at Enterprise improved slightly.



Source: RBN Estimate

U.S. PROPANE EXPORTS

Table D: U.S. Propane Exports Monthly and Weekly*						
(Mbbbl/d)	MONTHLY EIA			ESTIMATED		FORECAST
	Nov-24	Dec-24	M/M	Jan-25	Feb-25	Mar-25
Gulf Coast	1,762	1,659	(103)	1,724	1,750	1,650
East Coast	207	189	(18)	175	165	175
West Coast	42	28	(14)	27	42	47
Other	1	1	-	1	2	4
TOTAL EXPORTS	2,012	1,877	(135)	1,927	1,958	1,875
Weekly	1,962	1,850	(113)	1,861	1,825	
Variance	(50)	(28)	22	(66)	(133)	

*Monthly data from EIA through December 2024, weekly through the week of February 28, 2024.
See [RBN's NGL Voyager Report](#) for additional details on propane exports.

EAST COAST EXPORTS FALL IN DECEMBER

East Coast propane exports (green bar segments in Figure 4.1) from Energy Transfer's Marcus Hook terminal in Pennsylvania fell to 189 Mb/d in December from 207 Mb/d in November. Exports have yet to exceed July's 255 Mb/d. One

cargo was delivered into Blackline's Newington, NH, terminal during February with zero cargoes going into Providence, RI.

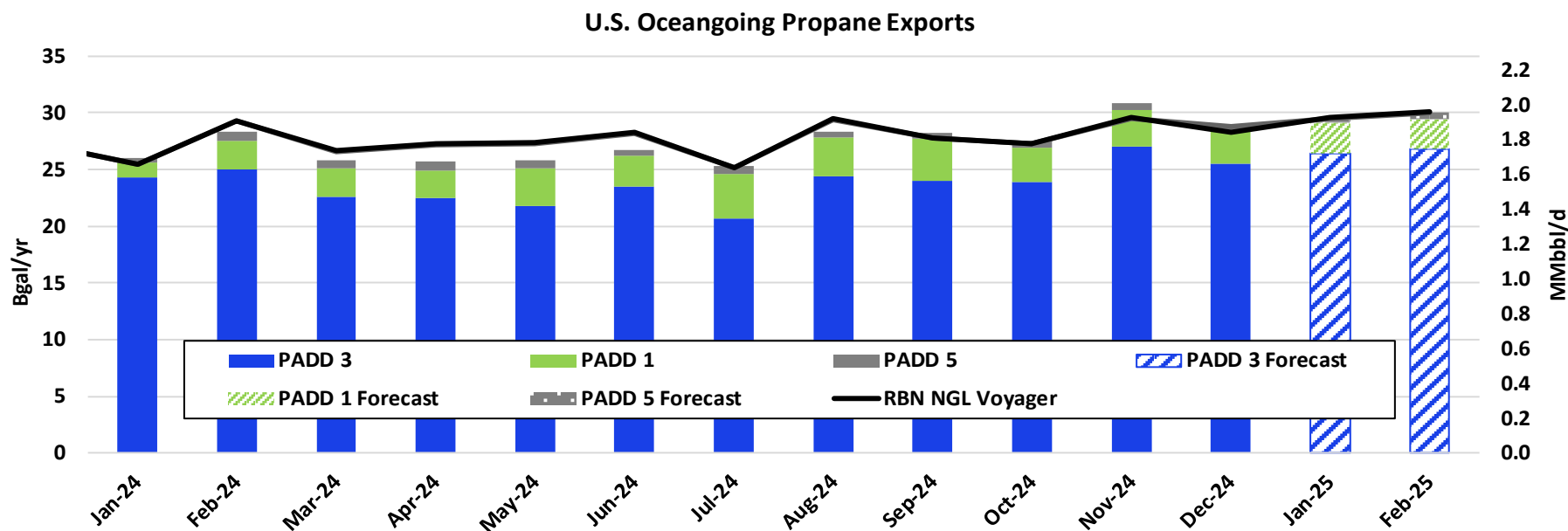
GULF COAST EXPORTS FALL FROM RECORD HIGH

Gulf Coast propane exports (blue bar segments in Figure 4.1) were down by 8%, decreasing to 1.66 MMb/d in December versus 1.76 MMb/d in November. We expect volumes to increase in January and February based on preliminary weekly data from the EIA and RBN's NGL Voyager. For 2024, total U.S. exports averaged ~1.8 MMb/d, which is up 162 Mb/d, or 10%, from 2023. January 2025 EIA data will be available in next month's Propane Billboard.

WEST COAST EXPORTS DOWN

Propane exports out of the AltaGas terminal in Ferndale, WA, on the West Coast fell to 28 Mb/d in December. We estimate that January shipments will fall further to 27 Mb/d. All West Coast exports are shipped to Asia (via the Ferndale terminal) or to Mexico (via railcars/trucks).

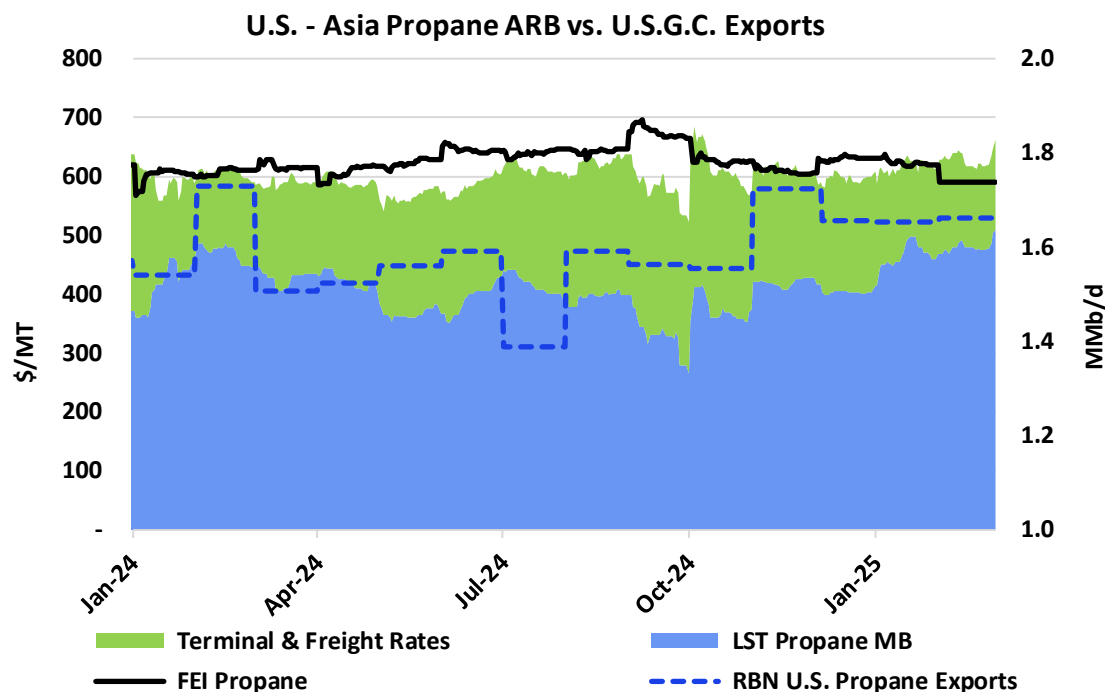
Figure 4.1



Source: EIA, RBN Forecast

INTERNATIONAL PROPANE

Figure 4.2



U.S.-ASIA PROPANE EXPORT ARB NARROWS

The Saudi Aramco LPG contract price (CP) for March is \$20/MT lower at \$615/MT.

VLGC freight rates were lower during February, averaging \$92/MT compared to \$101/MT the month before. The average, however, does not tell the full story as freights started the month at \$95/MT before falling to \$90.5/MT in the middle of the month before increasing again to \$94/MT by the end of the month. Spot terminal fees (resale differentials) increased during the month, averaging 10.9 c/gal versus 9.7 c/gal in January.

Figure 4.2 compares the Asian arb to U.S. propane exports. The arb is open (economic) when the forward month of FEI propane (black line) is higher than the sum of the terminal and freight rates (green area) and the price of Lone Star (LST) propane at Mont Belvieu (blue area). As U.S. prices ticked higher, the arb window narrowed, even flipping positive some days. The arb is currently open but only by a small amount. **Taking into consideration spot terminal fees and freight costs, the arb for March-April was closed (positive, thus non-economic) at \$18.9/MT, or 0.86 c/gal. However, some exporters with lower contract terminaling rates are still in the money for exports.**

Figure 4.3

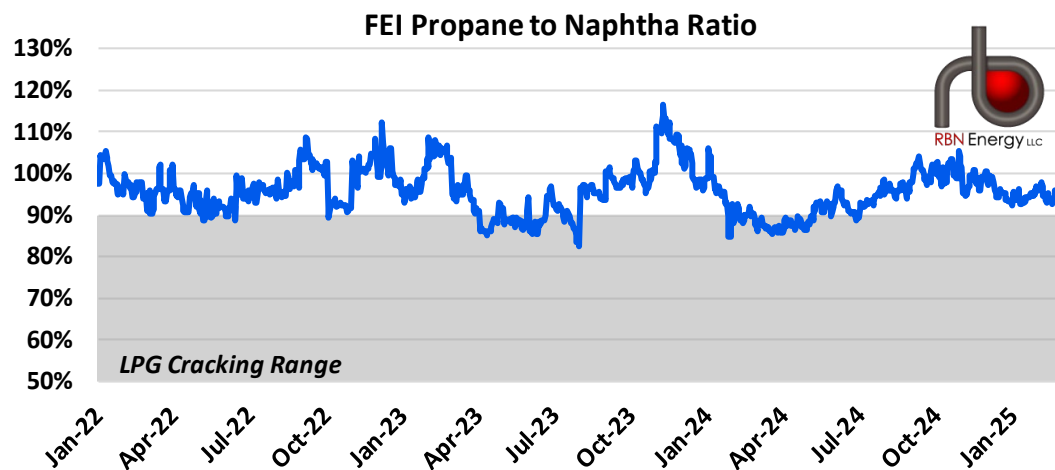


Figure 4.3 shows the ratio of the Asian FEI propane price to the naphtha price in the same region. As of March 5, the ratio stood at 98%, which implies that steam crackers in Asia will not favor propane feedstock over naphtha.

U.S. PROPANE PRODUCTION

Figure 5.1

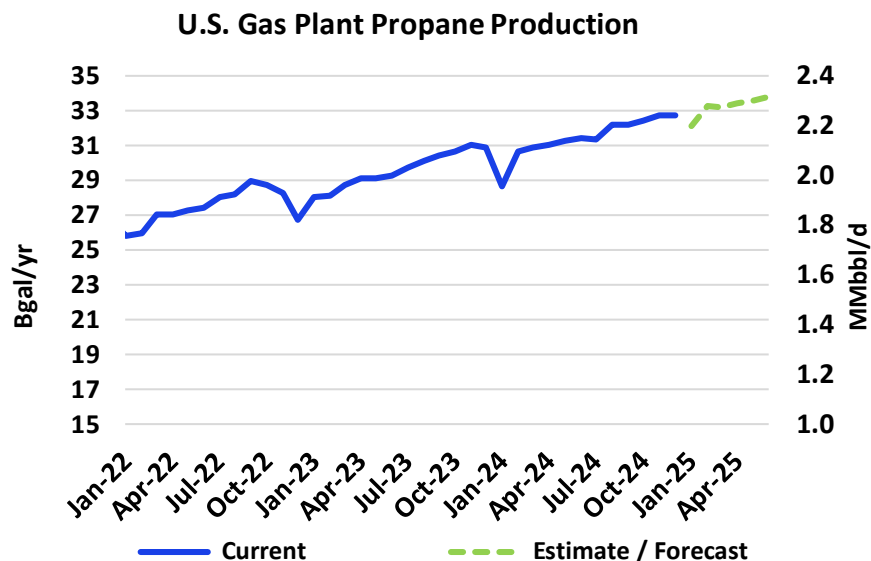
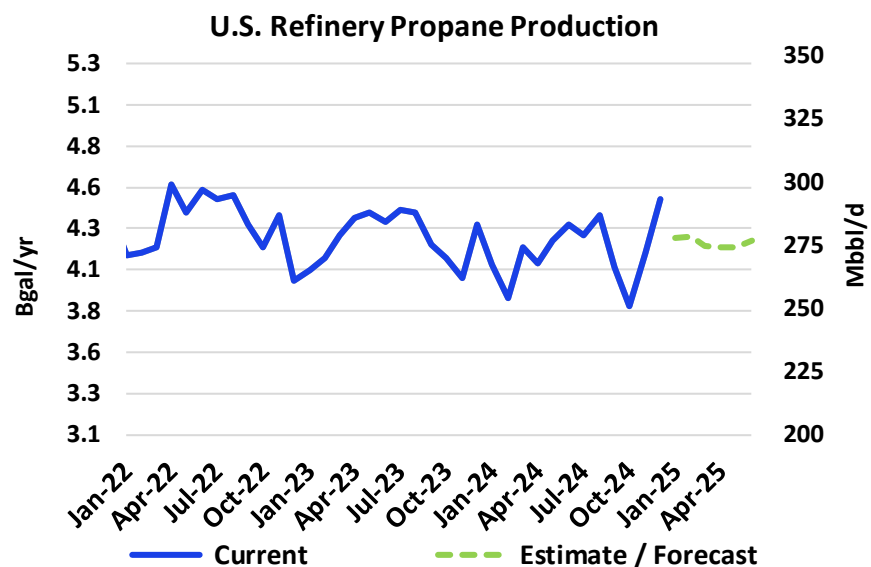


Figure 5.2



Source: EIA, RBN Forecast

Table E: U.S. Propane Production Monthly and Weekly*						
(Mmbbl/d)	MONTHLY EIA			ESTIMATED		FORECAST
	Nov-24	Dec-24	M/M	Jan-25	Feb-25	Mar-25
Gas Plant	2,240	2,239	(1)	2,198	2,276	2,273
Refinery	272	293	21	278	279	275
TOTAL PROPANE	2,512	2,532	20	2,476	2,555	2,547
Propylene	278	278	-	264	240	263
TOTAL PRODUCTION	2,790	2,810	20	2,740	2,795	2,810
Weekly**	2,737	2,695	(43)	2,601	2,655	
Variance	(53)	(115)	(62)	(139)	(140)	

* EIA reports propane production separately in monthly data, while weekly data includes propylene.

** Monthly production from EIA through December 2024, weekly through the week of February 28, 2024.

DECEMBER PRODUCTION FLAT TO NOVEMBER

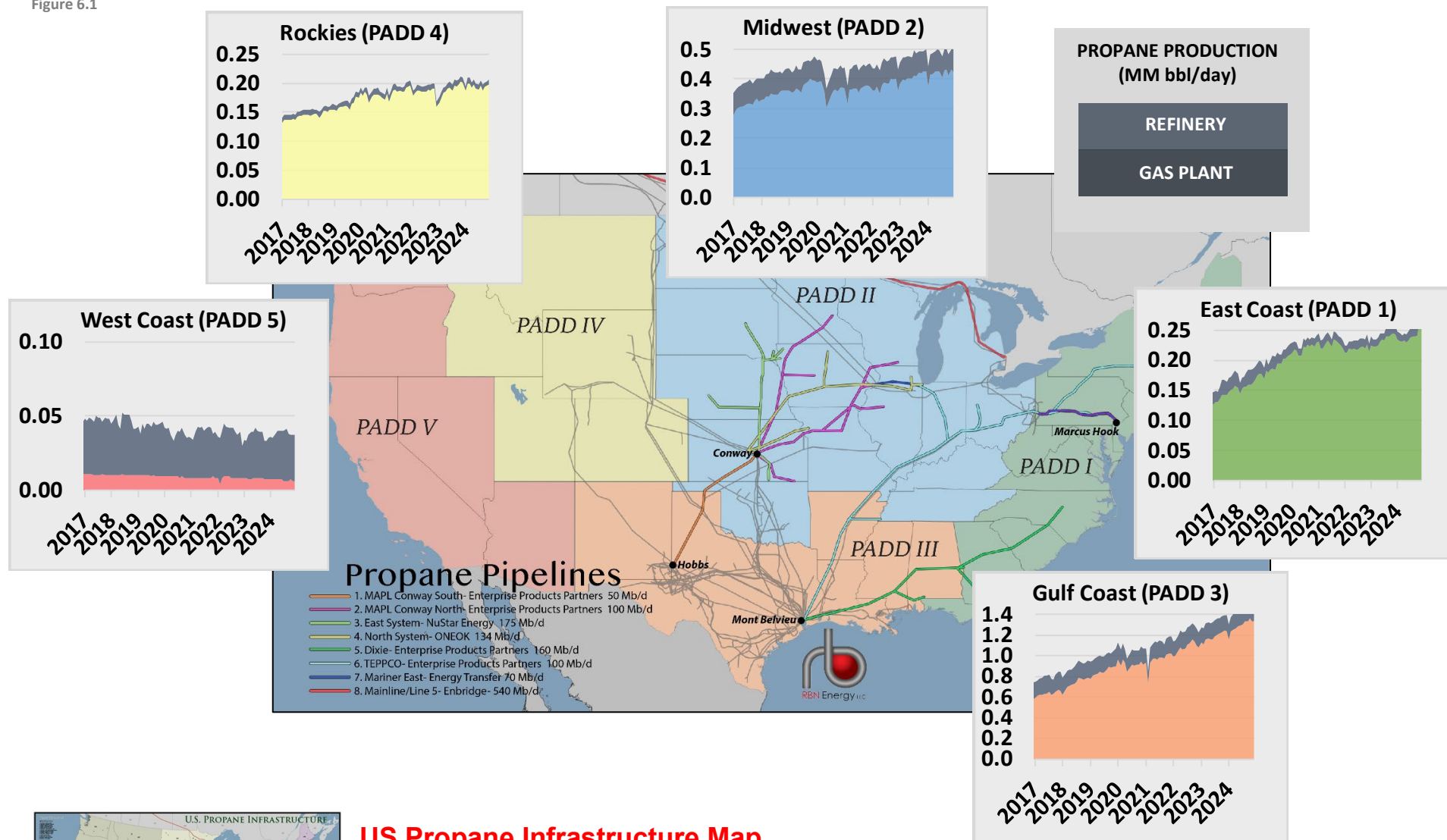
December propane gas plant production, as reported in the EIA Petroleum Supply Monthly on February 28, was basically flat, dipping by 1 Mb/d to 2.24 MMb/d. November's production was the highest on record, making December's the second highest on record. Production in January is expected to fall to 2.2 MMb/d. Following that, production levels are projected to continue increasing throughout the forecast period, reaching 2.27 MMb/d by March. Based upon our production forecast model we project 2025 annual volumes will average 2.33 MMb/d, or 180 Mb/d above 2024.

REFINERY PRODUCTION REBOUNDS

Refinery propane production was higher in December with volumes up by 21 Mb/d to 293 Mb/d as capacity utilization increased. We estimate January production at 278 Mb/d. For the full year 2024, refinery propane production averaged 273 Mb/d. In 2025, the average is forecast to be only 3 Mb/d higher at 276 Mb/d.

U.S. PROPANE INFRASTRUCTURE MAP

Figure 6.1

**US Propane Infrastructure Map**

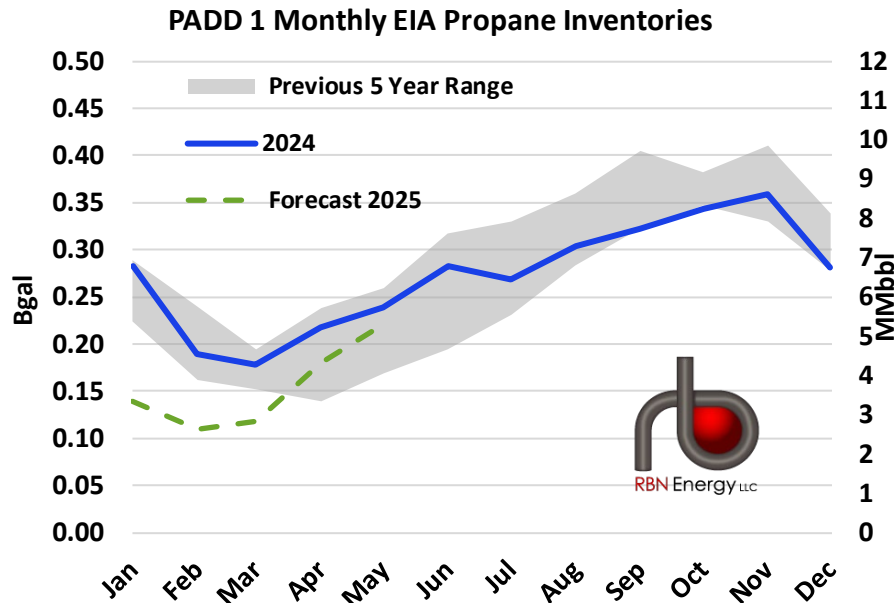
Click on the link above for RBN's U.S. Propane Infrastructure Map, which fits together all the pieces of an opaque and regionally fragmented propane market to reveal the extensive domestic propane network in a clear, concise map.

Note: RBN has updated the Propane Infrastructure Map in 2024. If you would like to order an updated RBN Propane Infrastructure Wall Map, please email tjbrazil@rbnenergy.com.

PADD 1: PROPANE SUPPLY & DEMAND

Table F:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	357	378	309	348	383	372	386	283	290	237	296	294	296	297
Gas Plants	339	358	291	332	365	355	368	269	275	223	282	280	281	283
Refinery	18	20	18	16	18	18	19	14	15	14	14	14	14	14
Imports	45	72	59	56	49	19	13	36	55	46	48	38	15	10
Net Inter-PADD Transfers	272	281	294	262	283	278	218	216	216	226	223	217	221	168
TOTAL SUPPLY	674	730	663	666	715	669	618	535	561	509	566	549	531	474
Demand (Prod. Supplied)	398	561	668	583	478	374	303	316	431	513	496	367	297	233
Exports	261	246	228	194	228	233	273	207	189	175	165	175	185	210
Stock Change	15	(78)	(143)	(30)	9	62	41	12	(60)	(110)	(26)	7	50	31
TOTAL DISPOSITION	674	729	753	747	715	669	618	535	560	578	635	549	531	474
TOTAL INVENTORY	357	279	136	106	115	178	218	8,509	6,646	3,247	2,532	2,743	4,229	5,200

Figure 7.1



Source: EIA, RBN Forecast

INSIGHTS & ANALYSIS

PADD 1 (East Coast) had a stock draw of 1.9 MMbbl in December; in 2023, it had a build of 2 MMbbl (Figure 7.1). December's draw was slightly higher than the five-year average of 1.5 MMbbl. This put PADD 1 inventory at 6.6 MMbbl (279 MMgal), which is 1.1 MMbbl below December 2023.

Exports decreased in December, hitting 189 Mb/d, down 18 Mb/d from November 2024 and only 3 Mb/d lower than in December 2023. PADD 1 exports averaged 191 Mb/d for 2024, an increase of 33 Mb/d from 2023. 2025 exports are forecast to be 204 Mb/d.

PADD 1 OUTLOOK

Our propane model forecasts that storage levels in PADD 1 will start building again in April, staying below the five-year average until then. We expect that storage levels will be within the five-year range by April, increasing further into May. East Coast exports are expected to fall in January to 228 Mb/d. Gas plant production expected to fall to 223 Mb/d (291 MMgal/m) in January before increasing in February. Following February, gas plant production is expected to stay around 280 Mb/d (365 MMgal/m) through May.

PADD 2: PROPANE SUPPLY & DEMAND

Table G:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	633	650	643	573	655	637	660	502	499	494	487	503	505	507
Gas Plants	544	548	549	488	562	546	567	432	421	422	415	432	434	436
Refinery	88	102	94	85	93	90	93	70	78	72	72	72	72	72
Imports	53	65	56	50	53	29	42	42	50	43	43	41	23	33
Net Inter-PADD Transfers	(582)	(460)	(555)	(471)	(535)	(518)	(495)	(462)	(353)	(426)	(400)	(411)	(411)	(380)
TOTAL SUPPLY	103	255	143	152	173	148	208	82	196	110	129	133	117	160
Demand (Prod. Supplied)	193	432	503	393	205	60	26	153	332	387	334	158	48	20
Exports	1	1	2	2	5	4	4	1	1	1	2	4	3	3
Stock Change	(91)	(180)	(301)	(191)	(37)	83	178	(72)	(138)	(231)	(163)	(29)	66	136
TOTAL DISPOSITION	103	254	204	203	173	148	208	82	195	157	173	133	117	160
TOTAL INVENTORY	1,106	926	625	434	397	480	658	26,330	22,052	14,887	10,333	9,448	11,429	15,655

INSIGHTS & ANALYSIS

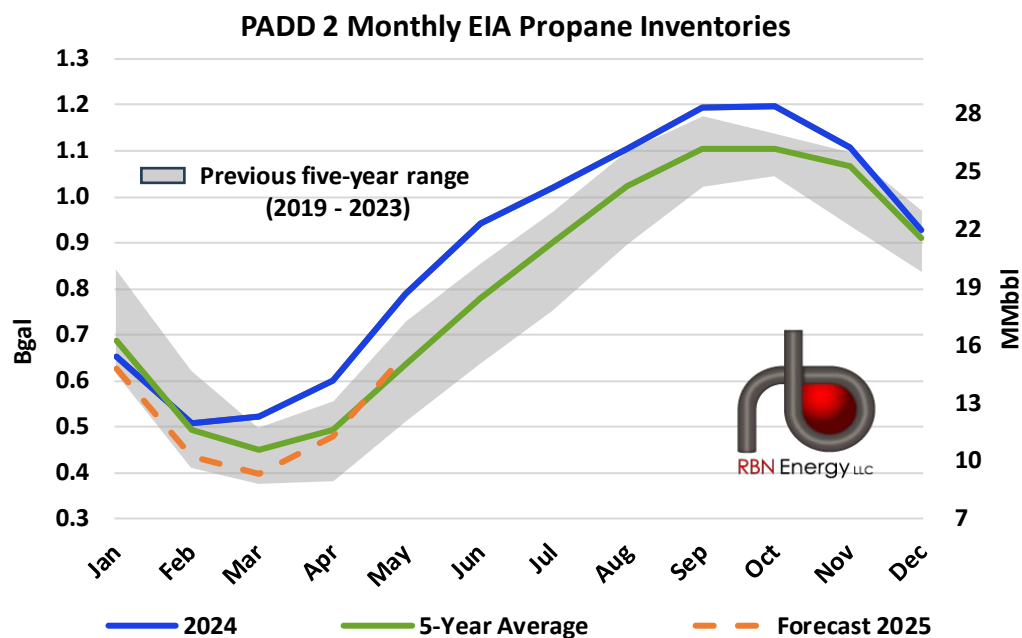
PADD 2 (Midwest) inventories fell by 4.3 MMbbl during December, compared to a 3.5-MMbbl draw last year and the 5-year average draw of 3.7 MMbbl, leaving stocks at 22.1 MMbbl (926 MMgal). In 2023, stocks ended the year lower at 21.9 MMbbl.

Gas plant production was 421 Mb/d in December, down from 432 Mb/d in November. Imports were higher at 50 Mb/d versus 42 Mb/d in November.

PADD 2 OUTLOOK

According to the weekly EIA data, storage levels in PADD 2 went down sharply in both January and February. In fact, storage levels were only 240 Mb, or 2%, higher than the five-year low at the end of February. Storage levels are expected to build starting in April as March is forecast for another small draw. The current forecast does not show PADD 2 storage going below the five-year range. Another snowstorm blew through the region last week.

Figure 7.2

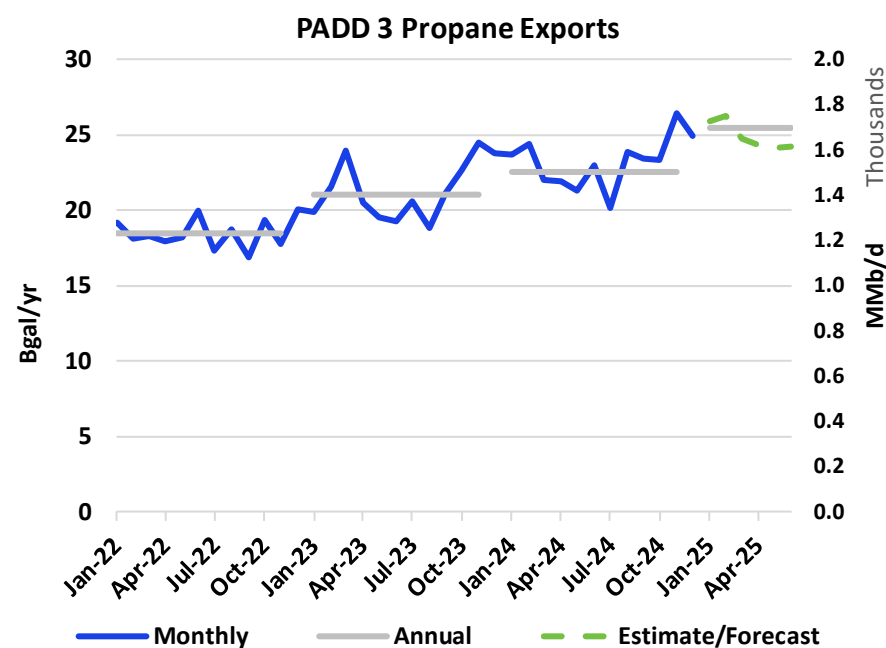


Source: EIA, RBN Forecast

PADD 3: PROPANE SUPPLY & DEMAND

Table H:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	1,874	1,950	1,959	1,805	1,976	1,925	2,006	1,487	1,498	1,505	1,535	1,518	1,528	1,540
Gas Plants	1,685	1,739	1,759	1,625	1,777	1,734	1,807	1,337	1,336	1,351	1,382	1,365	1,376	1,388
Refinery	189	211	200	180	199	191	198	150	162	154	153	153	152	152
Imports	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Inter-PADD Transfers	515	388	456	391	456	416	471	409	298	350	333	350	330	362
TOTAL SUPPLY	2,389	2,338	2,415	2,197	2,432	2,341	2,476	1,896	1,796	1,855	1,868	1,868	1,858	1,902
Demand (Prod. Supplied)	291	375	518	415	303	284	240	231	288	398	353	233	225	185
Exports	2,220	2,160	2,245	2,058	2,148	2,041	2,096	1,762	1,659	1,724	1,750	1,650	1,620	1,610
Stock Change	(122)	(198)	(505)	(285)	(20)	16	140	(97)	(152)	(388)	(242)	(15)	13	107
TOTAL DISPOSITION	2,389	2,337	2,258	2,188	2,432	2,341	2,476	1,896	1,795	1,734	1,861	1,868	1,858	1,902
TOTAL INVENTORY	2,208	2,010	1,506	1,221	1,201	1,218	1,357	52,576	47,868	35,854	29,071	28,599	28,991	32,319

Figure 7.3



Source: EIA, RBN Forecast

INSIGHTS & ANALYSIS

PADD 3 had a stock draw of 4.7 MMbbl in December, compared with a 4.3-MMbbl draw in December 2023 and the 6.1 MMbbl 5-year average draw for the month. This brought Gulf Coast inventories down to 47.9 MMbbl (2.3 Bgal) at month's end, 3.1 MMbbl above last year and 7.3 MMbbl higher than the 5-year average. Propane exports from the Gulf Coast fell to 1.66 MMb/d, down 103 Mb/d from November. PADD 3 gas plant production was essentially flat in December, hitting 1.34 MMb/d, down only 1 Mb/d from November. Production in PADD 3 remains elevated: 2024 production averaged about 12% higher than 2023.

PADD 3 OUTLOOK

January 2024 inventories are forecast to show a 12-MMbbl draw, compared to a 11.5-MMbbl draw in 2023 and the 5-year average draw of 5.9 MMbbl. With these changes, total storage levels on the Gulf Coast are forecast to be 29.1 MMbbl by the end of February, in the middle of the five-year range. Gas plant production is forecast to increase in January, reaching 1.35 MMb/d, before going up to 1.38 MMb/d in February. Exports are expected to be high in January and February. There will be pressure on exports from the need to refill storage in other parts of the country (Figure 7.3). New export capacity is expected to start later this year.

PADD 4: PROPANE SUPPLY & DEMAND

Table I:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	256	267	233	205	256	246	252	203	205	179	174	196	195	194
Gas Plants	247	258	223	194	247	238	244	196	198	171	165	190	189	187
Refinery	9	9	10	11	9	8	8	7	7	8	9	7	7	6
Imports	20	22	22	21	24	14	10	16	17	17	18	19	11	8
Net Inter-PADD Transfers	(226)	(232)	(214)	(198)	(224)	(193)	(217)	(179)	(178)	(164)	(168)	(172)	(154)	(167)
TOTAL SUPPLY	50	57	41	28	56	66	45	40	44	31	24	43	53	35
Demand (Prod. Supplied)	57	66	65	68	61	45	37	45	51	50	58	47	36	29
Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stock Change	(6)	(9)	(24)	(40)	(6)	21	8	(5)	(7)	(18)	(34)	(4)	17	6
TOTAL DISPOSITION	50	57	41	28	56	66	45	40	44	31	24	43	53	35
TOTAL INVENTORY	127	117	93	53	48	69	77	3,016	2,793	2,221	1,268	1,136	1,635	1,833

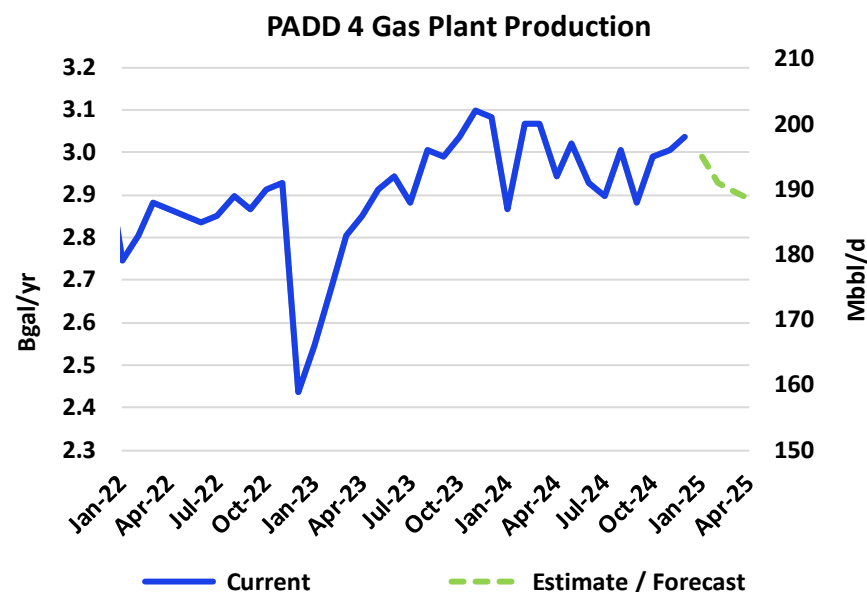
INSIGHTS & ANALYSIS

PADD 4 (Rocky Mountain) stocks fell by 223 Mbbl in December to 2.8 MMbbl, which is 145 Mbbl, or 9.4%, lower than 2023 and roughly equal to the five-year average. Gas plant production grew to 198 Mb/d from 196 Mb/d the previous month (see Figure 7.4). Transfers out of PADD 4 to other PADDs were relatively flat; the region sends most of its propane to PADDs 2 and 3.

PADD 4 OUTLOOK

Gas plant production is forecast to fall to 171 Mb/d in January followed by a decrease to 165 Mb/d in February. Rockies propane inventories are projected to fall by 572 Mbbl during January, leaving stocks at 2.8 MMbbl (117 MMgal). Refinery production is projected at 8 Mb/d in January as capacity utilization remains around 85%. December imports are forecast at 17 Mb/d, an increase in 1 MMb/d from November. Net PADD-to-PADD transfers are forecast to increase slightly during the summer months.

Figure 7.4

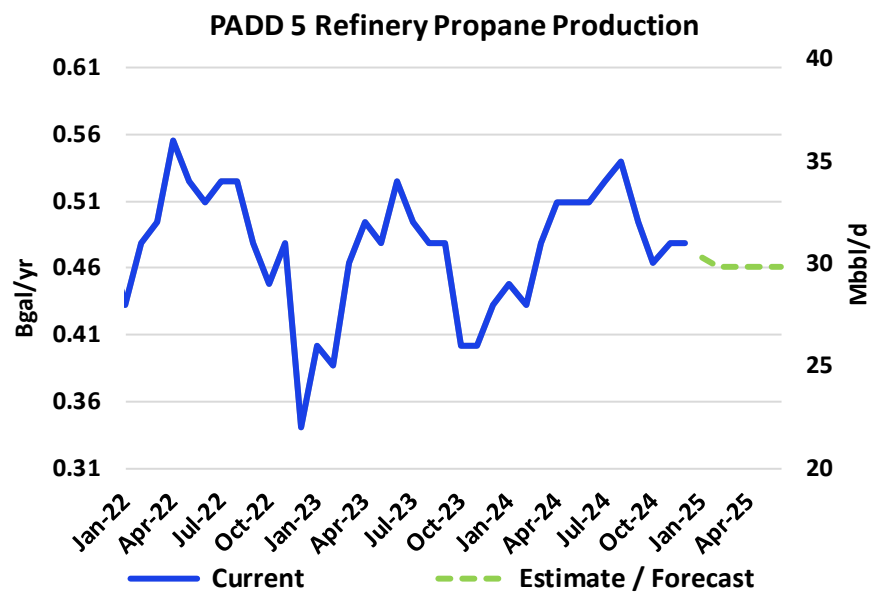


Source: EIA, RBN Forecast

PADD 5: PROPANE SUPPLY & DEMAND

Table J:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Production	47	52	48	42	47	45	47	37	40	37	36	36	36	36
Gas Plants	8	11	9	7	8	8	8	6	9	7	6	6	6	6
Refinery	39	40	39	35	39	38	39	31	31	30	30	30	30	30
Imports	42	47	49	43	43	36	35	33	36	37	37	33	29	27
Net Inter-PADD Transfers	21	20	19	15	21	18	23	17	15	15	13	16	14	18
TOTAL SUPPLY	110	119	116	101	111	99	104	87	91	89	85	85	78	80
Demand (Prod. Supplied)	60	90	101	74	65	44	48	48	69	78	63	50	35	37
Exports	53	36	35	49	61	49	46	42	28	27	42	47	39	36
Stock Change	(5)	(7)	(19)	(22)	(15)	6	10	(4)	(6)	(15)	(19)	(12)	4	8
TOTAL DISPOSITION	108	119	116	101	111	99	104	86	91	89	85	85	78	80
TOTAL INVENTORY	95	88	68	47	31	37	47	2,261	2,088	1,625	1,107	749	882	1,126

Figure 7.5



Source: EIA, RBN Forecast

INSIGHTS & ANALYSIS

PADD 5 (West Coast) inventories fell by 173 Mbbl in December, ending at 2.09 MMbbl (88 MMgal). This leaves stocks 17% lower than in December 2023. Refinery production (see Figure 7.5) was flat at 31 Mb/d. West Coast exports were down 14 Mb/d to 28 Mb/d.

PADD 5 OUTLOOK

West Coast inventories are projected to fall to 1.11 MMbbl (47 MMgal) in January, leaving stocks 380 Mbbl, or 4%, below January 2024 and 158 Mbbl, or 11%, above the 5-year average (2019-23). As shown in Figure 7.5, January refinery production in the region is forecast to be flat at 30 Mb/d as capacity utilization remains steady. Imports are projected to be higher in January at 36 Mb/d.

KEY ENERGY PRICES

Table K:		Prices									
Product	Units	Current 5-Mar-24	Prior Week 27-Feb-24	W/W	W/W %	Prior Month 5-Feb-24	M/M	M/M %	Prior Year 5-Mar-23	Y/Y	Y/Y %
Brent Crude	\$/bbl	82.0	83.7	(1.6)	-1.9%	78.0	4.1	5.2%	85.8	(3.8)	-4.4%
WTI Cushing Crude	\$/bbl	78.2	78.9	(0.7)	-0.9%	72.8	5.4	7.4%	79.7	(1.5)	-1.9%
Henry Hub Natural Gas	\$/MMBtu	1.96	1.62	0.34	21.2%	2.08	(0.13)	-6.0%	3.01	(1.05)	-35.0%
Propane											
Mont Belvieu Non-TET	c/gal	80.3	85.9	(5.6)	-6.5%	94.2	(13.9)	-14.7%	90.5	(10.2)	-11.3%
Mont Belvieu TET	c/gal	83.3	86.1	(2.8)	-3.3%	91.7	(8.4)	-9.2%	90.5	(7.3)	-8.0%
Conway	c/gal	75.3	79.4	(4.0)	-5.1%	86.2	(10.9)	-12.7%	84.9	(9.5)	-11.2%
Edmonton	c/gal	46.3	51.5	(5.2)	-10.1%	61.0	(14.7)	-24.1%	59.9	(13.6)	-22.7%
Sarnia	c/gal	87.6	84.0	3.6	4.3%	77.9	9.7	12.5%	69.8	17.9	25.6%
European (ARA)	\$/MT	535.0	539.0	(4.0)	-0.7%	517.8	17.2	3.3%	629.6	(94.7)	-15.0%
Saudi CP	\$/MT	587.3	621.2	(33.9)	-5.4%	592.5	(5.1)	-0.9%	623.8	(36.4)	-5.8%

Figure 8.1

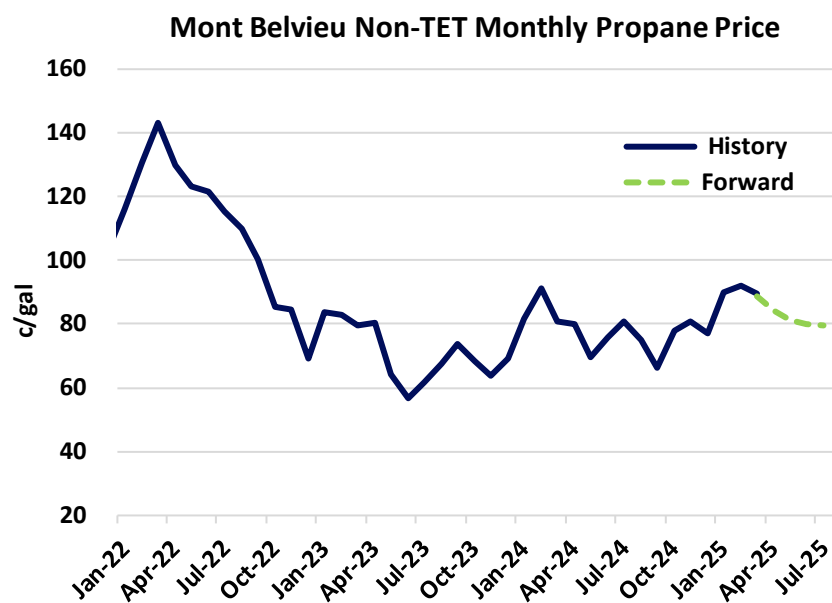
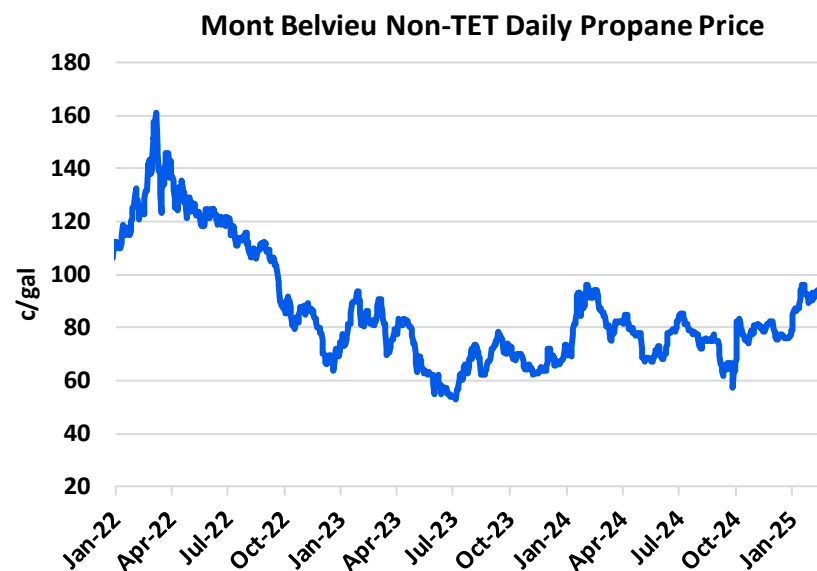


Figure 8.2



MONTHLY PROPANE PRICE TRENDS

Figure 8.3

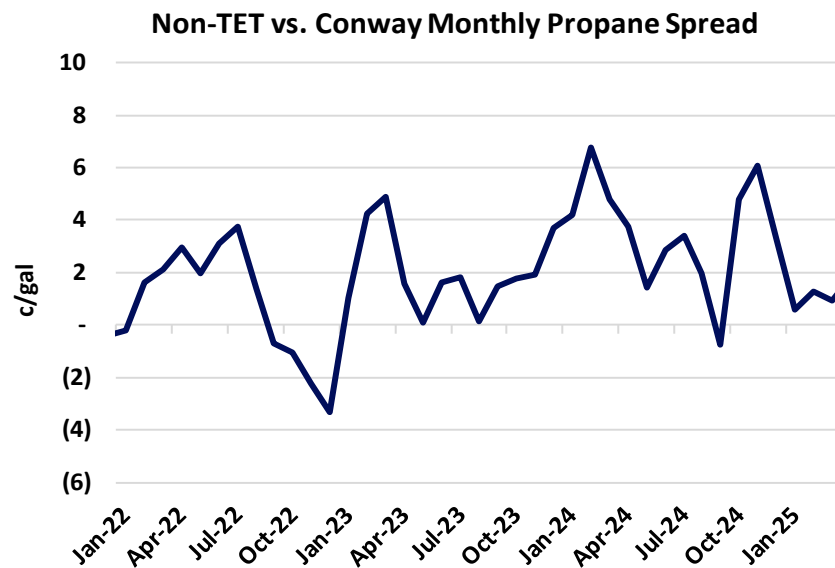


Figure 8.4

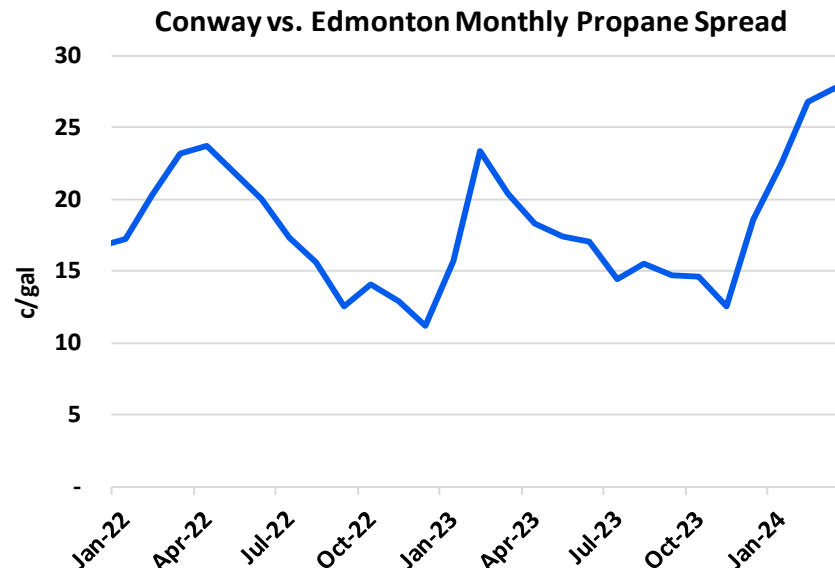


Figure 8.5

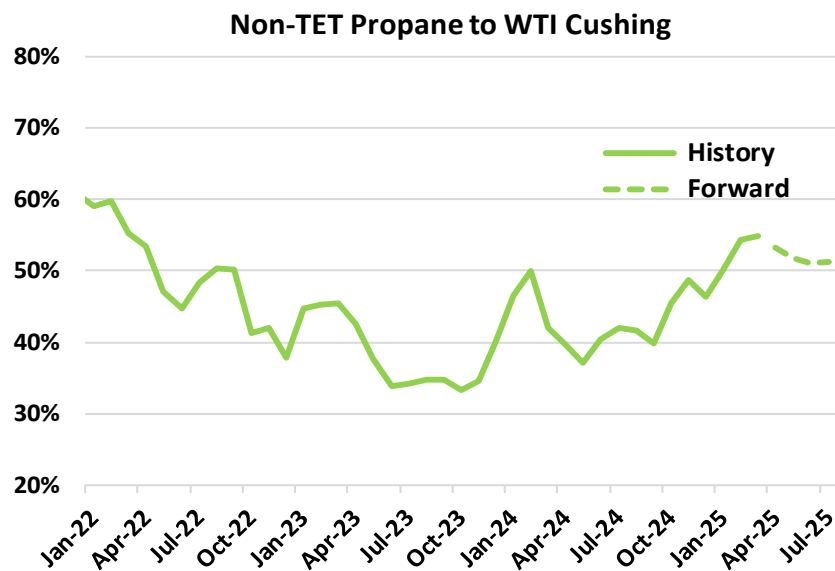


Table L: MB TET Propane / WTI Cushing					
%	2022	2023	2024	2025	Y/Y %
Dec	38.2%	39.4%	46.8%		
Jan	59.2%	44.6%	45.3%	50.1%	
Feb	60.4%	44.7%	49.5%	54.6%	10.3%
Q1	58.3%	45.0%	45.8%	52.4%	14.5%
Q2	48.8%	38.4%	39.4%		
Q3	49.5%	35.1%	40.8%		
Q4	40.8%	35.9%	45.9%		
Year	49.3%	38.6%	43.0%	52.4%	22.0%

INTERNATIONAL PROPANE PRICE SPREADS

Figure 9.1

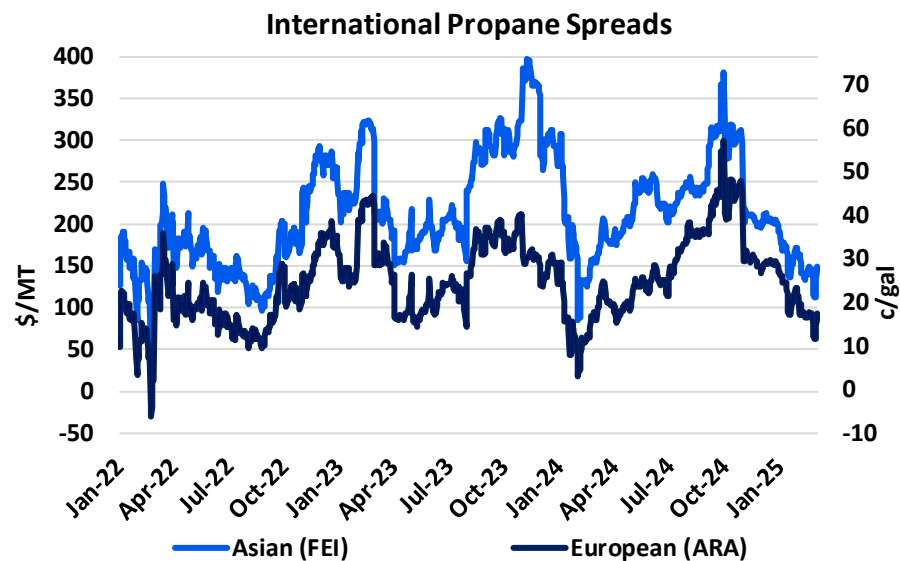


Figure 9.2

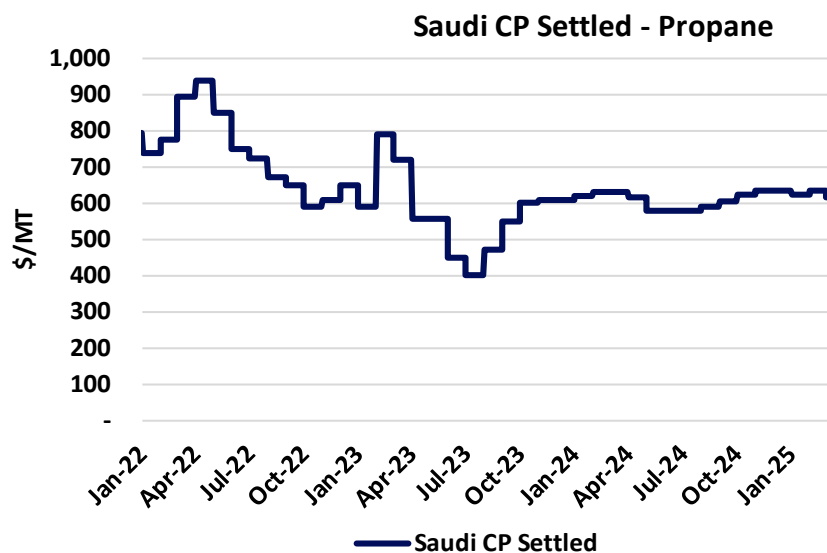


Table M: Asian FEI / MB TET Spread					
\$/MT	2022	2023	2024	2025	Y/Y %
Dec	268.2	292.8	203.3		
Jan	154.3	228.9	209.7	162.7	
Feb	115.0	311.6	131.8	141.6	7.4%
Q1	151.5	247.9	174.7	151.6	-13.2%
Q2	163.8	181.5	221.5		
Q3	134.0	255.7	261.0		
Q4	232.5	322.4	236.9		
Year	170.6	252.1	223.7	151.6	-32.2%

Table N: European ARA / MB TET Spread					
\$/MT	2022	2023	2024	2025	Y/Y %
Dec	183.1	143.6	151.4		
Jan	88.3	141.0	86.3	117.5	
Feb	44.4	221.3	63.9	89.9	40.7%
Q1	90.5	171.3	87.1	102.9	18.1%
Q2	98.3	101.5	119.0		
Q3	79.3	156.8	194.2		
Q4	147.9	163.5	181.3		
Year	104.1	148.3	145.6	102.9	-29.4%

Table O: Saudi CP / MB TET Spread					
\$/MT	2022	2023	2024	2025	Y/Y %
Dec	212.5	255.2	221.2		
Jan	143.6	230.7	178.7	164.7	
Feb	112.8	275.7	142.3	132.1	-7.2%
Q1	136.5	216.9	168.1	147.7	-12.1%
Q2	135.3	142.9	178.7		
Q3	91.6	182.4	215.4		
Q4	178.4	289.2	227.3		
Year	135.4	208.0	197.5	147.7	-25.2%

U.S. PROPANE SUPPLY & DEMAND BALANCE DETAIL

Table P:	MM gal / month							M bbl / day						
	EIA MONTHLY		ESTIMATED		FORECAST			EIA MONTHLY		ESTIMATED		FORECAST		
	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25
Gas Processing	2,822	2,915	2,831	2,646	2,959	2,880	2,994	2,240	2,239	2,174	2,250	2,273	2,286	2,300
Refinery Propane	343	381	362	328	358	345	357	272	293	278	279	275	274	274
Imports	160	206	186	170	169	98	100	127	158	143	144	130	78	77
TOTAL SUPPLY	3,325	3,502	3,378	3,144	3,485	3,323	3,451	2,639	2,690	2,595	2,673	2,677	2,638	2,651
Product Supplied	999	1,525	1,855	1,533	1,113	807	654	793	1,171	1,425	1,303	855	641	503
ResCom	600	810	947	766	689	532	410	476	622	727	651	529	422	315
Crop Drying	147	111	67	52	38	38	38	117	85	52	44	29	30	29
Industrial	94	113	121	101	96	82	84	74	87	93	86	73	65	64
Petrochemicals	257	266	266	242	266	258	266	204	204	205	205	205	205	205
PDH	113	117	143	129	143	139	143	90	90	110	110	110	110	110
Balancing	(212)	107	310	243	(119)	(240)	(287)	(168)	83	238	207	(92)	(191)	(220)
Exports	2,535	2,444	2,509	2,303	2,441	2,328	2,420	2,012	1,877	1,927	1,958	1,875	1,847	1,859
Stock Change	(209)	(472)	(992)	(568)	(69)	189	377	(166)	(363)	(762)	(483)	(53)	150	289
TOTAL DISPOSITION	3,325	3,496	3,372	3,268	3,485	3,323	3,451	2,639	2,685	2,590	2,778	2,677	2,638	2,651
TOTAL INVENTORY	3,893	3,421	2,429	1,861	1,792	1,981	2,358	92,692	81,447	57,834	44,311	42,675	47,166	56,133
Last Year Inventory	3,785	3,345	2,527	2,098	2,173	2,407	2,803	90,122	79,640	60,158	49,944	51,728	57,302	66,742
Stock M/M Δ	(209)	(472)	(992)	(568)	(69)	189	377	(4,980)	(11,240)	(23,613)	(13,523)	(1,637)	4,491	8,967
Last Year Stock M/M Δ	(328)	(441)	(822)	(414)	74	234	396	(7,800)	(10,509)	(19,561)	(9,856)	1,767	5,580	9,424

* Inventories are shown in billion gallons and million barrels, respectively.

PADD AVERAGE HEATING DEGREE DAYS (HDDs)

Figure 10.1

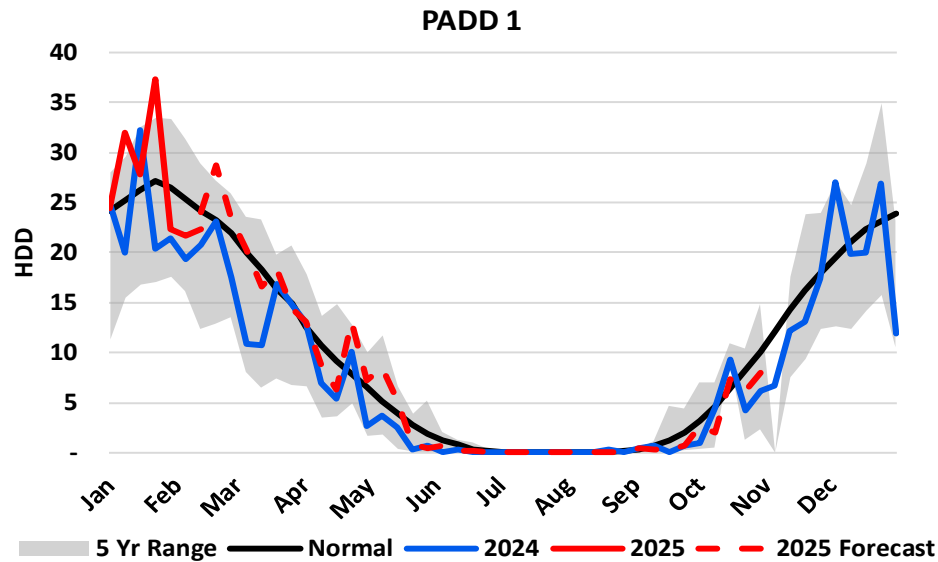


Figure 10.2

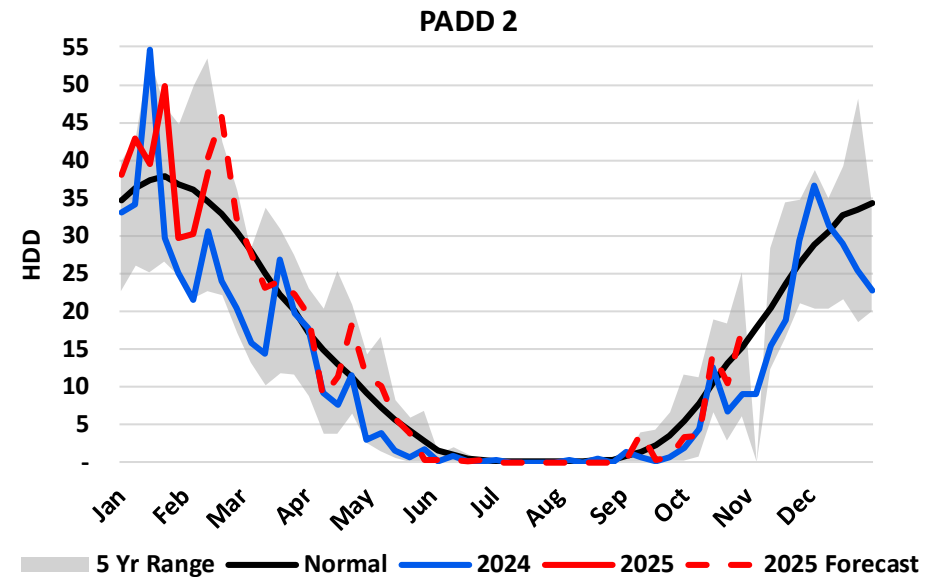


Figure 10.3

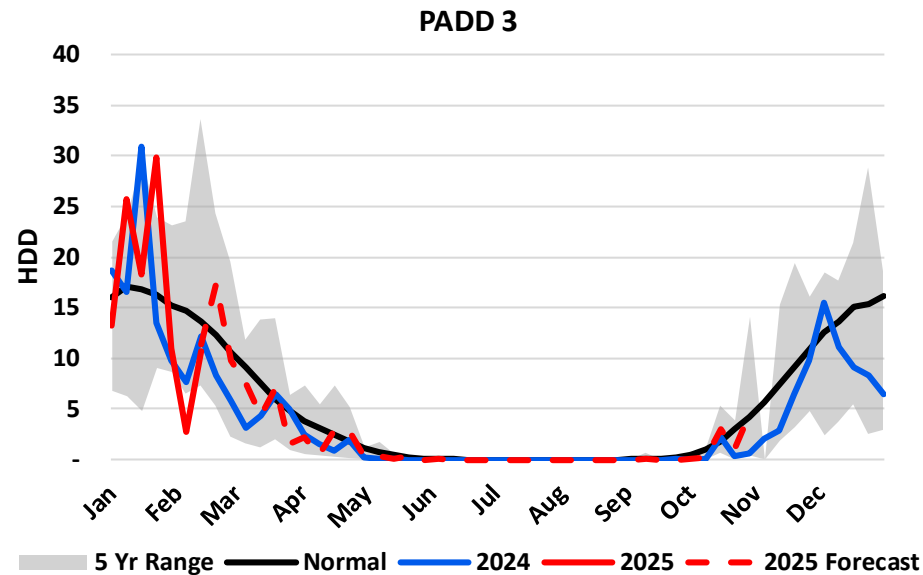


Figure 10.4

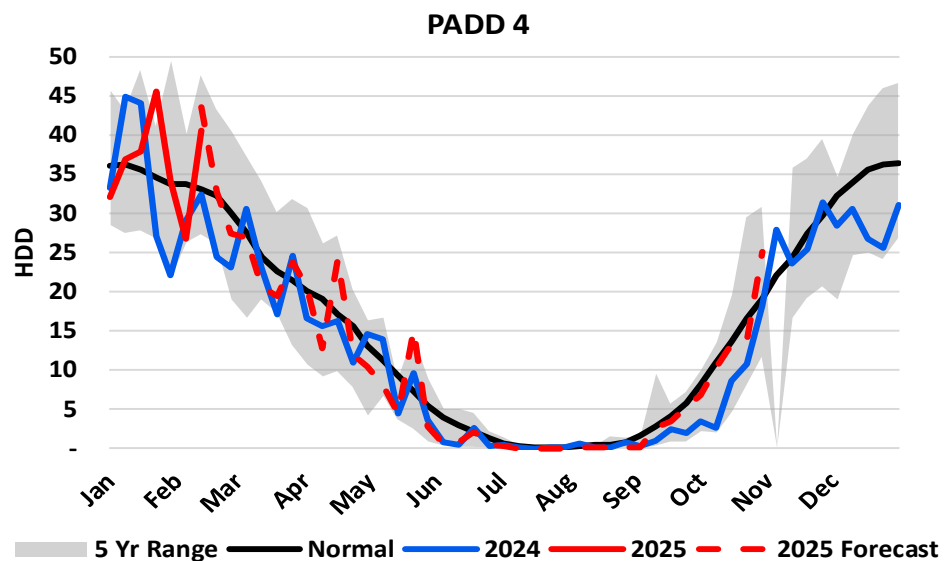
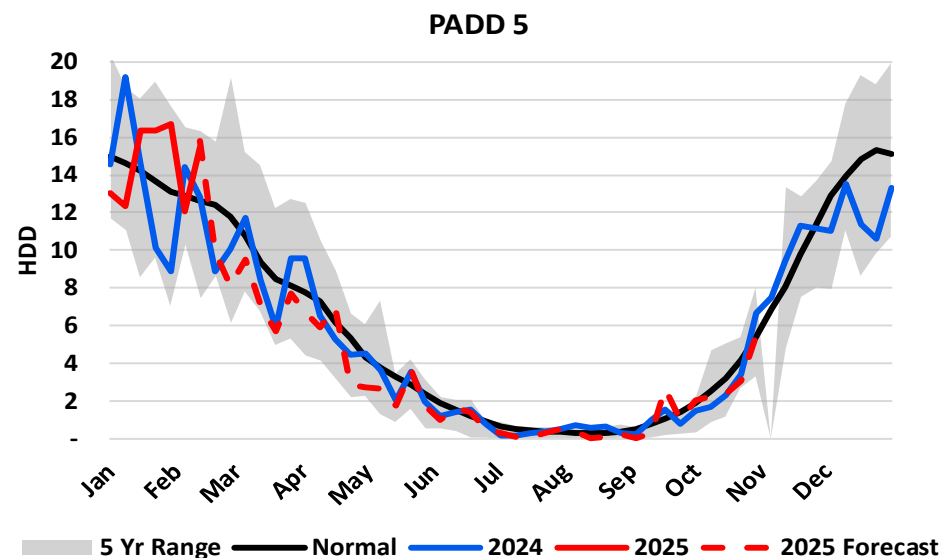


Figure 10.5



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