The NG Rotterdam LNG Regas Z Signal.

Thirty-five years of Rotterdam LNG regasification flows mapped against NYMEX natural gas forward returns. Mean-reversion polarity.

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What this signal is

Why Rotterdam is the largest LNG regasification hub in Europe. Why extreme physical-flow extremes indicate the bullish story is priced and forward tilts bearish. Why the signal pairs with price and demand signals rather than standing alone.

Rotterdam is the largest LNG regasification hub in Europe. Daily regas throughput measures how much LNG is being physically unloaded and gasified into the European pipeline network. When regas flows run extremely high, European LNG demand is pulling at maximum, which means US Gulf Coast feedgas demand is also near maximum and the bullish story is in the spot price. Forward returns tilt bearish as the pull fades back toward trend.

Current reading as of November 2, 2026: composite +0.952, Strong LNG Pull, 22 trading days in band. Rotterdam LNG regas sits roughly 1.9 standard deviations above its 52-week rolling norm, at seasonal extremes.

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How the inputs compose

The signal reads ENTSOG daily Rotterdam Gate LNG terminal regas throughput in GWh, runs a 52-week rolling z-score with 21-week minimum sample, and tanh-bounds to plus-or-minus one. Positive composite reads high pull (contrarian: forward bearish). State machine uses a 4-band threshold at plus-or-minus 0.3 and plus-or-minus 0.7.

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What the state-conditional returns have actually done

Nat gas forward 60-day benchmark across the 8,926-day sample has a mean of minus 1.06 percent and a median of minus 0.84 percent; both reference points anchor the regime edges below.

State Strong LNG Pull (phase plus one, composite above plus 0.3) covers 2.6 percent of the sample and delivers minus 5.85 percent forward 60-day, a minus 4.78 percentage point edge below the mean

baseline (mean reversion). State Normal covers 93.2 percent and delivers minus 0.95 percent. State LNG Slack (phase minus one) covers 1.2 percent and delivers minus 2.12 percent, a minus 1.05pp edge below the baseline.

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Three cases that frame how to read this signal

Case 1: December 2023 to March 2024. Winter Strong LNG Pull mean-reversion window.

The composite moved into state Strong LNG Pull on December 26, 2023 as winter European LNG demand ran at peak. Over the 65-trading-session window NG ratio-adjusted continuous fell from 4.18 to 3.55, a minus 15.0 percent move as the mean-reversion played out.

Case 2: March 2025 to June 2025. Spring Strong LNG Pull mean-reversion window.

The composite moved into state Strong LNG Pull on March 21, 2025 as EU storage refill demand drove Rotterdam regas higher. Over the 55-trading-session window NG ratio-adjusted continuous fell from 4.99 to 4.07, a minus 18.4 percent move.

Case 3: December 2025 to January 2026. Early-winter Strong LNG Pull window.

The composite moved into state Strong LNG Pull on December 9, 2025 as early-winter European demand surged. Over the 18-trading-session window NG ratio-adjusted continuous fell from 3.71 to 2.98, a minus 19.8 percent move as the pull was already in the price.

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How to use the signal today

The composite reading is firmly Strong LNG Pull. For a gas PM, this is a forward-bearish confirmation signal despite the apparent bullish headline. Historical analogs point to minus 15 to minus 20 percent in-regime NG moves. Pair with the TTF-HH spread (arb economics) and the EU storage seasonal composite (demand driver).

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Methodology notes

Data source: ENTSOG European pipeline operator daily regasification data for Rotterdam Gate LNG terminal. Daily cadence. Benchmark: NYMEX natural gas ratio-adjusted continuous (CSI feed NG_1220BD). Forward 60-day returns computed as the 60-day forward percentage change. Composite: 52-week rolling z-score of Rotterdam regas throughput, tanh-scaled.

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What this signal does not cover

This signal does not cover: non-Rotterdam EU LNG terminals (Zeebrugge, Montoir, Gate Barcelona); LNG cargo scheduling or floating storage decisions; pipeline flow dynamics within Europe. This signal reads Rotterdam Gate regas throughput only.