The NG Africa Rigs YoY (INV) Z Signal.

Thirty-five years of African rig-count year-over-year change (polarity inverted) mapped against NYMEX natural gas forward returns. Clean monotonic polarity.

David Stendahl DOT Market Lab Analytics DOT November 4, 2026

What this signal is

Why Africa produces 30 percent of global LNG exports and why its rig counts lead LNG supply by 6-9 months. Why the polarity is inverted so the composite reads intuitively (positive = bullish NG). Why this is the strongest signal in the NG supply stack.

Africa hosts major LNG-export producers including Nigeria, Mozambique, Algeria, and Egypt. African rig counts lead LNG-export capacity by 6-9 months through the drilling-to-liquefaction pipeline. When African rigs drop YoY, LNG supply is thinning; global LNG tightens and buyers rotate back to US Henry Hub as the swing supplier. When African rigs climb YoY, LNG supply is ramping; global balances loosen and Henry Hub faces competing supply.

Current reading as of November 2, 2026: composite −0.001, Neutral, 190 trading days in band. Africa rig count YoY essentially at its 52-week norm; neither supply-cut nor supply-ramp pressure firing.

D O T D O T D O T

How the inputs compose

The signal reads Baker Hughes International Rig Count Africa aggregate, computes YoY percentage change, runs a 52-week rolling z-score, and tanh-bounds the NEGATED z to plus-or-minus one (POLARITY INVERTED). Positive composite reads Africa rigs falling YoY (LNG supply cut, bullish NG). Negative reads rigs rising YoY (LNG supply ramping, bearish NG). State machine uses plus-or-minus 0.3 as the band boundaries.

D O T D O T D O T

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 LNG supply ramping (phase minus one, Africa rigs rising YoY, composite below minus 0.3) covers 21.4 percent of the sample and delivers minus 2.19 percent forward 60-day, a minus 1.13 percentage point edge below the mean baseline. State Neutral covers 35.6 percent and delivers minus 1.70 percent. State LNG supply cut (phase plus one, Africa rigs falling YoY, composite above plus 0.3) covers 17.2 percent and delivers plus 0.37 percent forward 60-day, a plus 1.43pp edge above the baseline. CLEAN MONOTONIC with 2.56pp top-to-bottom spread.

D O T D O T D O T

Three cases that frame how to read this signal

Case 1: May 2023 to December 2023. The 2023 Africa LNG supply-cut window.

The composite moved into state LNG supply cut on May 1, 2023 as Africa rig counts fell YoY against the 52-week norm. Over the 150-trading-session window NG ratio-adjusted continuous moved from 5.01 to 4.46, a minus 10.9 percent move. Signal predicted LNG tightening but Henry Hub pricing was cross-pressured by a warm 2023-24 winter.

Case 2: August 2008 to February 2009. The GFC Africa rig supply-surge bearish window.

The composite moved into state LNG supply ramping on August 1, 2008 as Africa rig counts rose YoY heading into the GFC. Over the 127-trading-session window NG ratio-adjusted continuous fell from 24.09 to 18.55, a minus 23.0 percent move as combined global supply ramp plus demand collapse pushed prices down.

Case 3: June 2014 to February 2015. The 2014-2015 Africa supply-ramp window.

The composite moved into state LNG supply ramping on June 2, 2014 as Africa rig counts expanded YoY. Over the 170-trading-session window NG ratio-adjusted continuous fell from 13.45 to 11.14, a minus 17.2 percent move.

D O T D O T D O T

How to use the signal today

The composite reading is at Neutral; no supply-cut or supply-ramp firing. Watch the monthly Baker Hughes International Rig Count release. Pair with the Haynesville DUC composite and the Haynesville-Appalachia rig ratio for a three-channel NG supply view across US inventory, US basin rotation, and global LNG-feed capacity.

D O T D O T D O T

Methodology notes

Data source: Baker Hughes International Rig Count, Africa aggregate series. Monthly 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 Africa rigs YoY, tanh-scaled. Polarity is INVERTED (negated z) so positive composite reads bullish NG.

D O T D O T D O T

What this signal does not cover

This signal does not cover: country-level breakouts (Nigeria vs Mozambique vs Algeria vs Egypt); non-Africa LNG producers (Qatar, Australia, US, Trinidad); LNG terminal throughput (separate signal); vessel movement / AIS tracking of LNG cargoes. This signal reads Africa aggregate rig counts only.