NRG gideon lens

NRG Energy, Inc. (NRG) - Gideon-Lens Equity Research

Date: 2026-04-30. Analyst: Codex ER2. Current price: $149.01. Market capitalization: $31.971 billion. Fiscal year end: December 31.

VERDICT BLOCK

Verdict: PASS

Scorecard:

Gate	Result	Notes
Management	YELLOW	Strong execution, but CEO succession and LS Power integration unseasoned
Moat	FAIL	Competitive power markets, commodity/regulatory exposure, and acquisition integration risk fail durable moat test.
P/E <= 15 on confident EPS at TTM + 5 calendar years	FAIL	Base EPS $7.29; required $9.93; cushion (26.6)%
Compounder Score	Audited 36 / 100	36/100; audited score remains Reject because NRG has useful assets but volatile returns, acquisition evidence gaps, and a failed 20% return setup.
Business Quality Score	Audited 33 / 80	33/80; Texas and Vivint deserve credit, but weak ROIIC proof, uneven GAAP FCF, post-LS Power uncertainty, and competitive energy-market exposure cap quality.
20% Return UW Score	Audited 3 / 20	3/20; base IRR is below 10%, bull IRR is only 7%, and the stock would need far more terminal value than the source model supports.

One-line thesis (or reason to pass): NRG has real power-demand upside, but competitive energy-market exposure, regulatory risk, and LS Power integration uncertainty fail the ER2 moat gate.

Kill / trigger criteria:

- BUY trigger: price below $109, roughly the base-case EPS x 15 value, before requiring a fresh update for Q1 2026 and LS Power disclosure.
- PASS triggers: East margin below 5.0%, Texas margin below 9.5%, and annualized net interest above $0.900 billion after two clean post-LS Power quarters.
- Upgrade to BUY conditions: base EPS must move above $9.93 through verified segment margins, lower interest, and post-close buybacks without relying on bull-case assumptions.

Position sizing if bought: 0% today. If upgraded, cap at 1.5%-2.0% until LS Power integration, CEO transition, and post-close leverage are seasoned.

ER2 stricter-gate recalibration (2026-05-28): Moat moved from YELLOW to FAIL because competitive power markets, commodity/regulatory exposure, and acquisition integration dependence do not clear the 20-year moat bar. This top scorecard supersedes any softer gate phrasing elsewhere in the appended materials; the underlying evidence was reused, but the gate standard is stricter.

Stage 0 - Time Anchor

Today is 2026-04-30. NRG's fiscal year ends December 31. The most recently reported quarter is Q4/FY2025, ended 2025-12-31; Q1 2026 results were scheduled for 2026-05-06 and were not yet available as of the report date. The TTM anchor is Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025, which equals TTM ending 2025-12-31. The forward horizon is TTM plus five calendar years, or 2030-12-31. Every FY+5 reference in this report means that exact 2030-12-31 horizon, not a six-year

fiscal-year stretch.

Stage 1 - Disqualifier Sweep

The quick gate did not force an immediate stop, but it also did not produce a clean compounder profile. ROIC is yellow because FY2025 operating performance improved but the business is still capital intensive and distorted by acquisitions. FCF conversion is green/yellow because NRG produced cash, but the difference between FMP FCF and management's FCF before growth shows how much definition matters. Leverage is yellow after LS Power financing. End-markets are green because data-center load, capacity markets, and retail power demand are constructive. Governance is green/yellow because disclosure is good but succession and compensation changes require monitoring. AI disruption is green for power assets but yellow for Vivint's smart-home workflow. Pricing power is yellow because Texas and Vivint show pockets of power, while competitive retail markets and affordability politics can compress spread.

Management

Management is a YELLOW gate. The positives are real: Coben, Chung, and Gaudette have delivered stronger disclosure, a clearer capital framework, buybacks, dividend growth, and a disciplined strategic pivot toward integrated power, smart home, CPower demand response, and data-center contracts. The proxy and transcript work show meaningful ownership, aligned compensation metrics, and better-than-average candor on buybacks, return hurdles, and speculative gas-build risk. The problem is not obvious mismanagement. The problem is underwriting confidence. Gaudette becomes CEO on 2026-04-30, the same date as this report; he is a long-tenured insider, but he is not yet a proven public-company CEO. LS Power and CPower are also not seasoned through a full clean reporting cycle. The acquisition is strategically coherent, but it increases integration, leverage, maintenance, and segment-taxonomy risk at the exact moment the stock requires upper-base execution. That is enough to prevent a PASS management gate.

Moat

The original moat appendix was YELLOW, with the 2046 test YELLOW; under the stricter May 2026 ER2 rubric, the main moat gate is recalibrated to FAIL. The strongest asset is Texas: a large integrated retail, supply, generation, TEF-backed capacity, and large-load positioning platform. Vivint adds a different kind of moat through installed base, retention, brand, and recurring monitoring relationships, although GAAP operating income remains much smaller than adjusted EBITDA. East has capacity-market and load-growth optionality, especially post-LS Power, but the segment is more cyclical and rule-sensitive. West/Other dilutes the consolidated moat. NRG does not have a regulated utility monopoly, a software network effect, or clean IP protection. Its moat is a blend of physical capacity, procurement trust, risk management, brand, and customer relationships. That can be valuable in 2046 if dispatchable power, VPPs, demand response, retail energy, and smart-home services remain scarce and trusted. It can also erode if affordability politics cap returns, retail switching compresses spread, or DIY/AI-enabled smart-home platforms pressure Vivint. The moat is not a 20-year hard-gate pass under ER2, and it cannot override the failed valuation gate.

Stage 5 Synthesis

The combined model passes the arithmetic tests and fails the investment test. The base case reaches 2030 revenue of $35.485 billion, operating income of $2.609 billion, net income available to common of $1.287 billion, and EPS of $7.29. At the current price of $149.01, Gideon's P/E 15 test requires $9.93 of confident 2030 EPS. Base EPS x 15 is only $109.31, a (26.6)% cushion. The bull case reaches $12.16 of EPS and would clear the bar, but the framework does not allow a bull case to rescue a failed base case.

Case	Revenue	OI	NI to common	EPS	EPS x 15	vs. $149.01
Bear	$31.611B	$1.332B	$0.227B	$1.29	$19.28	(87.1)%
Base	$35.485B	$2.609B	$1.287B	$7.29	$109.31	(26.6)%
Bull	$39.056B	$3.628B	$2.149B	$12.16	$182.46	22.5%
Probability-weighted	n/a	n/a	n/a	$6.83	$102.44	(31.3)%

The model gives NRG credit for business progress. It uses reviewed segment endpoints: Texas base OI of $1.521 billion, East $1.001 billion, West/Other $0.171 billion, and Vivint $0.115 billion. It also gives credit for $3.0 billion of buybacks over five years, ending share count of 176.661 million, normalized tax at 23.0%, and base net interest expense of $(0.850) billion. The tie-out checks are clean: 11 of 11 passed. The issue is that the below-the-line burden and required market multiple leave too much to prove. East margin is the most important sensitivity: plus or minus 200 bps changes EPS by about plus or minus

$1.41. Even the upside side of that sensitivity does not independently clear the P/E 15 bar. The stock needs simultaneous margin recovery, manageable interest, buybacks, and LS Power execution.

Red Team

The red team does not break the arithmetic, but it reinforces the verdict. Its strongest bear argument is that NRG is priced for upper-base or bull execution while the base case already fails after giving credit for margin recovery and buybacks. The most likely optimistic Stage 5 number is base 2030 operating income of $2.609 billion, because Texas and East margin recovery must land before LS Power integration and financing drag are seasoned. The quantitative exit/reset signal is narrow: after two clean post-LS Power quarters, reset the thesis if East margin is below 5.0%, Texas margin is below 9.5%, and annualized net interest is above $0.900 billion.

Kill / Trigger Criteria

- Upgrade trigger: post-LS Power reporting shows East margin above 6.2%, Texas margin above 11.5%, annualized net interest below $0.850 billion, and buyback pace consistent with the modeled $3.0 billion five-year path.
- Price trigger: absent a model upgrade, the first valuation revisit is around $109, the base EPS x 15 value.
- Kill trigger: East margin stays below 5.0% for two clean post-close quarters while net interest annualizes above $0.900 billion.
- Watch trigger: bull-case signs are credible if data-center contracts, CPower, TEF projects, and Texas/East margins are disclosed in a way that moves base EPS toward $9.93 without relying on one-time adjusted items.

Analyst Flags

NRG's product-level disclosure is thin. The segment appendices correctly avoid fabricating product revenue below reportable segments, but that means the synthesis is necessarily a segment-line model. Vivint is especially important to treat carefully: adjusted EBITDA is large, while GAAP operating income is small. West/Other required a reviewer correction because headline tables can include Corporate activity; the final appendices preserve that caveat. Q1 2026 was not reported as of 2026-04-30, so the next quarter is a material update point. The PASS verdict is not a claim that NRG is a poor business. It is a claim that today's price does not offer a base-case P/E 15 entry with management and moat still at YELLOW.

Appendix A - Company Primer

NRG Energy, Inc. (NRG) - Appendix A: Company Primer

Source Discipline And Time Anchor

This primer is reader-facing orientation, not the quantitative source of record for the ER2 model. All financial figures below are anchored to `C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\quant_foundation.md`, which reports `RECONCILIATION: 8/8 checks PASSED` and was independently cleared by QFR for Wave 1. Live FMP `/stable/` checks were also run for `profile NRG`, `quote NRG`, and `revenue-product-segmentation NRG --param period=annual` on April 30, 2026. Primary-source orientation comes from NRG's FY2025 Form 10-K filed with the SEC on February 24, 2026 for the period ended December 31, 2025, NRG's FY2025 results release dated February 24, 2026, and NRG's LS Power acquisition releases dated May 12, 2025 and January 26, 2026. Because the data package was not complete at the time this appendix was written, the primer avoids depending on management-call quotations except where the public release or 10-K directly supports the statement.

Stage 0 anchor:

- Today: 2026-04-30.
- Fiscal year ends December 31.
- Most recently reported quarter: Q4/FY 2025, period ended 2025-12-31. Q1 2026 results are scheduled for 2026-05-06, so Q1 2026 is not yet reported as of today.
- TTM anchor: Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025 -> TTM ending 2025-12-31. For NRG, the current TTM equals FY2025.
- Forward horizon: TTM + 5 calendar years = 2030-12-31. The compounding span is exactly five calendar years.

Primary source links used for orientation: SEC 2025 Form 10-K filing detail, period 2025-12-31 and filed 2026-02-24: https://www.sec.gov/Archives/edgar/data/1013871/0001013871-26-000004-index.html. NRG FY2025 results release: https://investors.nrg.com/node/45311/pdf. NRG LS Power transaction announcement: https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-acquire-premier-power-portfolio-ls-power. NRG regulatory approval release: https://investors.nrg.com/news-releases/news-release-details/nrg-energy-receives-all-regulatory-approvals-ls-power-portfolio.

1. Business Overview

NRG Energy is a competitive power, retail energy, natural gas, and smart-home company headquartered in Houston. It is not a conventional regulated electric utility earning an allowed return on rate base. Its core business is to acquire or produce energy, shape that supply through hedges and physical assets, sell electricity and gas to end customers, and manage the commodity, credit, weather, and customer churn risks created by that activity. It operates under recognizable retail brands including NRG, Reliant, Direct Energy, Green Mountain Energy, Stream, XOOM Energy, and Vivint. The company also owns and operates generation assets, primarily competitive power plants rather than regulated wires assets.

The customer base spans households, small businesses, commercial and industrial accounts, government entities, data-center customers, wholesale counterparties, and smart-home households. In its 2025 10-K, NRG described approximately 8 million residential customers, composed of about 6 million retail energy customers and 2 million smart-home customers, plus large commercial, industrial, data-center, and wholesale customers. It had recurring electricity and/or natural-gas sales in 25 U.S. states, the District of Columbia, and eight Canadian provinces. Vivint Smart Home served customers in all 50 U.S. states and the District of Columbia. That footprint matters because NRG's opportunity is not only generation output; it is the combination of customer relationships, energy supply, risk management, and value-added energy/smart-home products.

The business solves two linked problems. For retail and commercial customers, it converts wholesale power and gas exposure into a usable customer contract: fixed, indexed, or month-to-month electricity and gas service, often combined with renewable energy, carbon offsets, demand-response, backup, storage, energy management, or smart-home products. For wholesale and grid markets, it provides generation capacity, energy, ancillary services, and demand flexibility. The economic

engine is a spread business: NRG must price customer contracts, procure supply, hedge exposures, run plants, and retain customers at a cost below the lifetime gross margin those customers and assets produce.

Customers buy through a mix of direct sales, digital channels, call centers, face-to-face sales, brokers, affinity and partnership channels, and direct commercial relationships. The 10-K states that home customers typically contract for one month to five years, while business customers often contract for one to five years, with longer terms available. The sales cycle and economics differ sharply by customer type. A residential electricity account may be acquired through a digital or direct-marketing channel and renewed through pricing, service, brand, and product bundling. A commercial or industrial account may be brokered, negotiated, structured around load shape, and paired with risk-management or sustainability attributes. A data-center or hyperscale arrangement may depend on power availability, location, reliability, time-to-power, and the ability to pair load with generation or demand-response assets.

NRG's business has changed materially with the LS Power transaction. The FY2025 numbers in the QF are pre-closing, because the acquisition closed on January 30, 2026, after the TTM anchor. NRG announced in May 2025 that it would acquire 18 natural-gas-fired facilities totaling roughly 13 GW plus CPower, a commercial and industrial virtual power plant platform with about 6 GW of capacity. NRG later announced receipt of all regulatory approvals in January 2026. The acquisition is strategically important because it doubles the generation footprint and expands demand-response capability, but it should not be blended into FY2025 historical revenue and operating income without explicit modeling.

2. Revenue Architecture

NRG reports four operating segments for FY2025: Texas, East, West/Other, and Vivint Smart Home, plus Corporate and eliminations. The QF uses the 2025 10-K segment table as controlling source. FY2025 total revenue was $30.713 billion. Gross segment revenue before eliminations was $30.748 billion, and eliminations were negative $35 million.

Segment	FY2025 revenue	% of FY2025 reported revenue	FY2025 operating income/(loss)	Operating margin
Texas	$11.139 billion	36.3%	$1.113 billion	10.0%
East	$14.263 billion	46.4%	$0.706 billion	5.0%
West/Other	$3.202 billion	10.4%	$0.149 billion	4.7%
Vivint Smart Home	$2.144 billion	7.0%	$0.053 billion	2.5%
Corporate	$0.000 billion	0.0%	$(0.176) billion	n/m
Eliminations	$(0.035) billion	(0.1)%	$0.000 billion	n/m
Total	$30.713 billion	100.0%	$1.845 billion	6.0%

The largest revenue category is retail energy. The 2025 10-K segment revenue disclosure shows total retail revenue of $29.543 billion, split between $12.967 billion of Home retail revenue and $16.576 billion of Business retail revenue. That is why NRG should be understood first as a competitive retail energy and risk-management platform, not as a pure merchant generation company. Energy revenue, capacity revenue, mark-to-market effects, contract amortization, and other revenue complete the revenue stack, but the customer-contract engine dominates reported revenue.

Texas. The Texas segment includes customer, plant, and market operations in Texas. This is the cleanest version of NRG's integrated model: a large retail book, meaningful owned generation, and exposure to ERCOT market dynamics. The 10-K states that in Texas the generation supply is fully integrated with retail load, which reduces the need to buy from and sell to intermediaries, lowers transaction costs, reduces credit exposure, and can make earnings and cash flows more stable than a disconnected retail-only or generation-only business. Texas generated $11.139 billion of FY2025 revenue and $1.113 billion of operating income. FY2025 adjusted EBITDA was $1.877 billion, the largest segment contribution in the QF's adjusted EBITDA table.

East. East includes customer, plant, and market operations in eastern markets. It is the largest revenue segment at $14.263 billion in FY2025, but its operating margin was lower than Texas at 5.0%. East contains substantial business and retail energy activity and more exposure to organized markets such as PJM and other eastern power regions. FY2025 adjusted EBITDA was $981 million, slightly below FY2024 in the QF/IR release. NRG's FY2025 release attributed the decline to higher cost to serve retail load, higher planned plant maintenance, and the retirement of Indian River, partly offset by higher natural-gas wholesale margins and capacity prices for owned generation. For a new reader, the key point is that East is big but not automatically high-margin; customer mix, capacity prices, load cost, plant availability, and hedging execution matter.

West/Other. West/Other primarily includes customer, plant, and market operations in the West and Canada, plus other investments. It produced $3.202 billion of FY2025 revenue and $149 million of operating income. FY2025 adjusted EBITDA was $137 million. The release describes the year-over-year EBITDA decline as driven by the sale of Airtron in September 2024 and termination of the Cottonwood lease in May 2025, partly offset by higher retail power margins. This is the smallest energy segment and should be treated as a mixed portfolio rather than a single coherent power market.

Vivint Smart Home. Vivint Smart Home is NRG's smart-home segment. It provides smart-home technology and related services to residential customers across the United States. Economically, it is different from the energy segments: the revenue base is more service/subscription-like, while operating income is depressed by amortization, customer-acquisition economics, installation activity, and the accounting treatment of acquired intangibles. FY2025 revenue was $2.144 billion, operating income was $53 million, and adjusted EBITDA was $1.092 billion. The gap between operating income and adjusted EBITDA is important: Vivint may be economically valuable, but the GAAP operating margin alone understates the cash-flow profile and overstates the simplicity of the segment.

3. Unit Economics

At a high level, NRG turns a dollar of customer revenue into operating profit by managing four layers: customer gross margin, commodity procurement and hedge cost, operating and maintenance cost, and overhead/customer acquisition cost. A customer contract creates an obligation to deliver electricity, gas, smart-home services, or related products. NRG then supplies that obligation through owned generation, wholesale purchases, financial/physical hedges, fuel supply, transportation, demand-response tools, and customer usage management. Margin emerges when the realized customer price exceeds all-in supply, operating, risk, service, and acquisition costs.

The integrated energy segments share three operating functions. Customer Operations acquires and retains accounts, designs offers, bills customers, handles service, collects payments, and renews contracts. Market Operations procures and hedges power and gas, manages capacity and ancillary-service positions, and optimizes commodity risk. Plant Operations runs the generation fleet, maintains safety and reliability, executes maintenance, and manages capital projects. The dollar economics differ by geography, but the operational pattern is the same: customer book plus physical and financial supply engine plus plant operations where NRG owns generation.

Gross margin is highly sensitive to the quality of NRG's pricing and hedging. If NRG underprices a fixed-rate retail book before a weather event or commodity spike, the cost to serve can move faster than customer revenue. If it over-hedges or misestimates load, it can lose economics on both financial and physical positions. If it owns generation in the same market as retail load, as in Texas, it can naturally offset part of the exposure, but integration does not eliminate risk. It changes the shape of the risk from pure procurement exposure toward asset availability, heat-rate, fuel, forced outage, collateral, basis, and regulatory exposures.

Texas illustrates the best version of NRG's model. The segment has both customer load and generation supply, so it can capture retail margins while using owned assets and hedges to serve part of the obligation. The 10.0% FY2025 operating margin and $1.877 billion of adjusted EBITDA show the power of that setup in a favorable year. But Texas is not a regulated annuity. Extreme weather, ERCOT market design, power price volatility, collateral requirements, and plant outages can rapidly change economics. The investment question is whether NRG can retain the advantages of integration without letting commodity and regulatory risks dominate the normalized earnings base.

East is a scale retail and wholesale platform with thinner FY2025 operating margin. A dollar of East revenue must cover retail energy procurement, wholesale and capacity-market exposures, planned maintenance, customer-service costs, and plant operating costs. Capacity prices and gas-fired generation margins can help, but higher retail load cost or maintenance can compress margins. The East segment's FY2025 performance shows why NRG cannot be valued simply as revenue times a utility margin: the same dollar of revenue may carry very different economics depending on customer class, load shape, market, hedge book, and asset coverage.

West/Other is lower-scale and more portfolio-like. The segment's FY2025 revenue was meaningful, but operating income was only $149 million. The sale of Airtron and Cottonwood lease termination reduced comparability. The segment can contribute when retail power margins are favorable, but it does not have the same strategic centrality as Texas or post-LS Power East/Texas generation. For modeling, it should be separated from the major growth and integration debates.

Vivint's unit economics start with customer lifetime value. The company spends to acquire a smart-home customer, install equipment, and provide monitoring and service. Revenue then comes through recurring service and product economics. The release cited customer-count growth, record new customer additions, strong retention, and higher monthly recurring service

margin per customer as drivers of FY2025 adjusted EBITDA growth. This segment is more similar to a subscription/service platform than a power generation book, but it also depends on churn, installation productivity, financing costs, equipment costs, and the accounting amortization of customer relationships.

Capital intensity is mixed. NRG's FY2025 cash provided by operating activities was $1.913 billion, capital expenditures were $1.147 billion, and FMP-defined free cash flow was $766 million. NRG's non-GAAP free cash flow before growth investments was $2.210 billion, a materially different metric that excludes or adjusts items differently and should not be confused with GAAP CFO less capex. The LS Power acquisition and Texas Energy Fund projects raise capital allocation intensity from the FY2025 standalone base. The company is entering a phase where generation expansion, debt service, share repurchases, dividends, and credit metrics all compete for cash.

4. Market Position And Strategic Context

NRG sits at the intersection of deregulated retail energy, competitive generation, smart-home services, and the emerging demand for flexible power. That positioning is more complex than the standard utility taxonomy. It has customer relationships like a retailer, generation and fuel exposure like an independent power producer, hedging and collateral exposure like a commodity-risk manager, and smart-home economics through Vivint.

The core strategic claim is that customer load and generation ownership are more valuable together than separately. Retail customers create recurring demand and margin opportunities, but a retail book without generation can be exposed to wholesale price spikes and collateral stress. Generation assets create power output and optionality, but a merchant fleet without customer load can be exposed to commodity cycles and basis. NRG's integrated model attempts to bind the two: customer demand supports generation economics, and generation supports customer supply reliability and margin stability.

This integration thesis became more important after the LS Power transaction. The acquired portfolio adds 18 natural-gas-fired and dual-fuel facilities totaling roughly 13 GW across nine states and CPower's C&I VPP platform. NRG's announcement said CPower had about 6 GW of capacity and more than 2,000 commercial and industrial customers. Strategically, that gives NRG more dispatchable capacity and demand-side flexibility at a time when power demand growth, data centers, electrification, grid constraints, and reliability needs are receiving more investor attention.

The data-center angle should be handled carefully. NRG's FY2025 release framed the environment as a power-demand supercycle and discussed bring-your-own-power solutions. That is directionally important, but it is not the same as booked long-term earnings. Data-center load growth can create demand for capacity, energy, reliability products, and customized power structures. It can also create execution risk: interconnection delays, environmental permitting, gas supply, transmission constraints, customer concentration, regulatory scrutiny, and the danger of overbuilding into a forecast. The primer should orient the reader to the opportunity without treating it as a free option.

Competitively, NRG competes with retail energy providers, incumbent utilities in markets with customer choice, independent power producers, natural-gas and power marketers, demand-response platforms, smart-home providers, and emerging distributed-energy companies. Its differentiators are scale, recognized retail brands, a large customer base, a generation fleet, risk-management capability, and now CPower. Its disadvantages are commodity complexity, regulatory exposure, cyclicality in merchant power economics, and a balance sheet that became more leveraged around the acquisition.

5. Balance Sheet, Liquidity, And Capital Allocation

At December 31, 2025, QF reports $4.708 billion of cash and cash equivalents, $30 million of restricted cash, and $9.628 billion of total liquidity excluding collateral received. Total assets were $29.140 billion, total liabilities were $27.459 billion, and stockholders' equity was $1.681 billion. Long-term debt and finance leases were $16.412 billion, and FMP total debt was $16.766 billion. FMP net debt was $12.028 billion.

Those figures must be interpreted in the context of the LS Power closing after year-end. The FY2025 release states that the increase in liquidity versus 2024 was driven by newly issued secured and unsecured corporate debt primarily to fund the acquisition. NRG also returned $1.6 billion of capital to shareholders in 2025 through repurchases and dividends according to the FY2025 release; QF specifically reports $1.311 billion of share repurchases and excise tax paid and $411 million of dividends paid to preferred and common stockholders.

The capital allocation story has two sides. On the positive side, NRG has a visible shareholder-return policy, a large customer and asset base, and management has communicated adjusted EPS growth objectives through 2030. On the risk side, a company with meaningful commodity exposure, acquisition integration demands, generation capital needs, and higher debt cannot be judged only on buybacks and adjusted EPS. The core analytical questions are whether free cash flow before

growth investments converts into durable owner earnings, whether post-acquisition debt remains manageable through a cycle, and whether buybacks occur at prices that leave a margin of safety.

6. What To Watch In The Rest Of The ER2 Work

The first modeling issue is normalized earnings. FY2025 GAAP net income was $864 million, net income available to common was $797 million, diluted EPS was $4.01, adjusted EPS was $8.24, adjusted EBITDA was $4.087 billion, and FCFbG was $2.210 billion. These numbers tell different stories. The synthesis must decide what portion of adjusted EBITDA and adjusted EPS is recurring, what portion of GAAP mark-to-market volatility should be normalized, and what cash conversion is available to common shareholders after maintenance capital, growth capital, interest, taxes, collateral, and acquisition/integration costs.

The second issue is segment durability. Texas is the strategic profit center, but its earnings depend on ERCOT market structure, weather, hedging, and plant performance. East is revenue-heavy and now more strategically important after LS Power, but its FY2025 operating margin was modest. West/Other is smaller and harder to underwrite as a durable compounding engine. Vivint has attractive recurring-service characteristics but needs a proper customer lifetime value, churn, acquisition cost, and cash conversion analysis. A consolidated P/E test will be weak if it simply capitalizes adjusted EPS without segment-level proof.

The third issue is whether the LS Power acquisition creates a moat or just adds scale. Adding 13 GW of gas-fired capacity and CPower's demand-response platform can improve reliability offerings and customer solutions, especially for large-load and data-center demand. But acquired assets bring integration risk, fuel and emissions exposure, maintenance capital, cyclicality, and leverage. The moat appendix needs to test whether NRG's integrated retail-plus-generation platform becomes harder to replicate after the transaction, or whether the company is still primarily exposed to competitive commodity markets.

The fourth issue is regulatory and political risk. NRG operates in markets governed by state commissions, ERCOT/PUCT, FERC-jurisdictional tariffs, RTO/ISO rules, environmental requirements, consumer protection regimes, and retail competition rules. Retail energy can attract scrutiny when pricing, customer acquisition, or service practices are controversial. Generation assets can face changing capacity-market rules, emissions regulation, reliability mandates, and fuel infrastructure constraints. These risks are not side notes; they are part of the business model.

The fifth issue is capital discipline. QF's market snapshot used an FMP quote price of $149.01 and market capitalization of about $31.971 billion. At that price, the stock already reflects a meaningful amount of confidence in post-acquisition earnings growth. The ER2 framework requires a P/E of 15 or less on TTM+5-year EPS by 2030-12-31. The primer's role is not to answer that valuation question, but it should prepare the reader to understand why the answer depends on normalized post-LS Power earnings, cash conversion, debt reduction, buyback price, and the sustainability of Texas/Vivint profits.

7. Primer Takeaways

NRG is best understood as an integrated competitive energy retailer, generation owner, commodity-risk manager, and smart-home platform. FY2025 revenue was dominated by retail energy, but value creation depends less on raw revenue growth than on the spread between customer pricing and all-in supply, hedging, service, acquisition, maintenance, and capital costs. Texas is the highest-quality segment in the current base because retail load and generation are integrated in the same market. East is larger by revenue but lower margin. West/Other is smaller and portfolio-like. Vivint introduces recurring smart-home economics that look different from the power business and require separate unit-economics analysis.

The company is entering 2026 with a changed asset base. The LS Power and CPower acquisition closed after the FY2025 TTM period, so historical numbers cannot simply be extrapolated. The transaction may strengthen NRG's generation footprint and demand-response capabilities at exactly the moment when dispatchable power and large-load solutions are more valuable. It also raises the burden of proof on leverage, integration, maintenance capital, and cycle resilience.

For an institutional investor reading the rest of the ER2 package, the right starting question is not "is NRG a utility?" It is: can NRG's integrated customer-and-generation platform produce durable, cash-converting earnings through commodity cycles, weather events, regulatory changes, acquisition integration, and higher capital needs, and can today's price still clear the 15x FY+5 EPS discipline? The primer points to a potentially powerful but complex platform. The synthesis and red-team work must decide whether the complexity is compensated.

Appendix M - Management Assessment

NRG Energy, Inc. - Management Assessment

Verdict Summary

Management gate: **YELLOW**. NRG has a materially better management story than it had before the 2023 strategy reset: execution has been strong, disclosures have become more quantitative, capital return has been large, and incentives are broadly tied to cash flow, EBITDA and relative TSR. The gate is not a clean PASS because the CEO transition is occurring on April 30, 2026, the largest strategic move in the current plan, the LS Power/CPower acquisition, closed only on January 30, 2026, and the company is entering a multi-year period where disciplined power contracting matters more than headline growth. This is a good team with real evidence of value creation, but the next CEO still has to prove that the enlarged platform can compound through the cycle without drifting into speculative generation build.

1. Who Is Running The Company

The latest governance source is the 2026 definitive proxy filed March 18, 2026. As of the Stage 0 date, Lawrence S. Coben is Chair and CEO, but the transition is explicit: he has served as CEO since November 2023 and Chair since 2017, and will step down from the company and board on April 30, 2026. The January 7, 2026 succession release and related 8-K state that Robert J. Gaudette was appointed President immediately and CEO effective April 30, 2026. Coben will remain an advisor through 2026. Antonio Carrillo, currently Lead Independent Director and CEO of Arcosa, becomes Chair on April 30, separating the chair and CEO roles.

Gaudette is not an outside reset candidate. NRG describes him as a 25-year company veteran who joined from a predecessor company in 2001 and has held roles across trading, asset management, government affairs, finance, strategy, sales, origination, customer care and product development. He has been Executive Vice President of NRG Business and Market Operations since 2022 and President of that unit since 2024, overseeing C&I gas, power, demand response, market operations, origination, trading, real-time operations and generation. That makes him a direct owner of the data-center, VPP, generation and customer-contracting strategy.

Woo-Sung "Bruce" Chung is Executive Vice President and CFO, in the seat since June 2023. His background is unusually relevant for NRG's current capital-allocation load: he led strategy, M&A and NRG Services before becoming CFO; previously worked at NRG in project and new-business development; and earlier advised regulated and unregulated power companies in Citigroup investment banking. Segment-level leadership is more functionally disclosed than by reportable segment. Brad Bentley joined in July 2025 as Executive Vice President, President of NRG Consumer after operating roles at Expedia, Inspire Clean Energy, WarnerMedia, AT&T and DIRECTV. Gaudette, before becoming CEO, owned the business/wholesale/generation side. Brian Curci is General Counsel since 2021 after long tenure in NRG legal roles. Gin Kirkland Kinney is Chief Administrative Officer since December 2024, and Dak Liyanearachchi is Chief Technology Officer since December 2024 after data and analytics roles at NRG and Hilton.

The proxy nominee slate shows a ten-director board, with Gaudette as the only non-independent nominee. Carrillo, Matthew Carter, Heather Cox, Elisabeth Donohue, Marwan Fawaz, Sanjay Kapoor, Alexander Pourbaix, Alexandra Pruner and Marcie Zlotnik are shown as independent. An April 7, 2026 Form 8-K says E. Spencer Abraham resigned from the board effective April 3 for personal reasons and not because of a disagreement. Overboarding does not appear acute. The board refreshment profile is acceptable, and the incoming separation of CEO and chair is positive. The caution is management turnover: CEO, consumer head, CAO and CTO roles are all recent or changing.

2. Tenure And Track Record

Coben has been CEO only since November 2023, but he has been Chair since 2017 and a director since 2003. That means he is not a five-year operating CEO, yet he cannot be treated as a new outsider either. He owns the 2023-2026 strategy reset: retain the integrated retail/generation core, monetize or rationalize non-core assets, use free cash flow for buybacks and dividends, build demand-response and smart-home advantages, and pursue data-center power opportunities only when contracted returns meet hurdles.

The first major decision was the post-Vivint operating and capital-allocation reset. The 2023 Investor Day framework preceded Coben's CEO start by a few months, but Coben and Chung have owned execution since late 2023. The data package shows consolidated revenue moving from $28.823 billion in FY2023 to $30.713 billion in FY2025, operating income from $0.384

billion to $1.845 billion, and adjusted EBITDA reaching $4.087 billion in FY2025. Diluted share count fell from 228 million in FY2023 to 199 million in FY2025. That is tangible per-share compounding, not just narrative recovery.

The second decision was aggressive capital return. From FY2021 through FY2025, NRG spent $4.164 billion on repurchases and $1.848 billion on dividends, including $1.403 billion of repurchases and $0.411 billion of dividends in FY2025. The company repurchased heavily at prices well below today's level in 2023-2024 and kept buying in 2025 at higher prices while stating explicit return hurdles. Buybacks were not purely mechanical: Q4 2025 commentary said new growth investments would be tested against 12%-15% pretax unlevered IRR and the implied return from buying back stock.

The third decision was the LS Power/CPower acquisition plus related data-center and Texas Energy Fund growth plan. In May 2025 NRG agreed to acquire 13 GW of natural-gas and dual-fuel assets plus CPower's 6 GW C&I VPP platform; the deal closed January 30, 2026. Consideration included $6.4 billion cash, 24.25 million NRG shares and assumption of $3.2 billion of debt. The strategic logic is coherent: more owned generation, more PJM/ERCOT exposure, better ability to serve customers, and a larger demand-response platform. The issue is proof. This is a large deal at a point when enthusiasm for data-center load is high. Until there is post-close evidence on integration, realized cash flow, leverage and contracting discipline, this remains a YELLOW element.

CFO Chung's track record is better than average so far. He has helped convert improved EBITDA into per-share cash flow, fund LS Power, and present a capital framework through 2030. He also directly answers capital-allocation questions on calls. The caution is balance-sheet size: December 31, 2025 FMP total debt was $16.766 billion, and the April 28, 2026 8-K disclosed $2.6 billion of new 2031-2036 notes. Refinancing is not a red flag, but the enlarged balance sheet raises the execution bar.

3. Capital Allocation Behavior

The five-year capital allocation history in the data package is straightforward. Capex rose from $0.269 billion in FY2021 to $1.147 billion in FY2025, or from 1.0% to 3.7% of revenue. R&D is not meaningful in FMP presentation. Buybacks rose from $0.048 billion to $1.403 billion, while dividends rose from $0.319 billion to $0.411 billion. M&A was lumpy, with $0.596 billion of FY2025 outflow before the post-year-end LS Power close.

Allocation is consistent with the stated strategy. NRG is a customer-led energy platform with generation, retail load, smart-home services and demand response. The data-center strategy is being funded through site control, gas-turbine reservations, Texas Energy Fund projects and acquired generation, not through a blind leap into merchant development. On the Q4 2025 call, Coben said NRG has "0 interest" in speculative new capacity build and will not do deals that miss the unlevered return hurdle. That is the right answer; the next test is whether the company maintains it when hyperscaler negotiations become competitive.

The buyback record is a positive. FY2024 repurchases averaged $87.57 per share according to call commentary, and FY2025 execution through October averaged $125.35 for most of the planned program. The 2026 plan still contemplates at least $1.4 billion returned to shareholders through buybacks and dividends, plus debt paydown and integration costs. The stock's rerating means repurchases are less obviously accretive than in 2023-2024, and management recognizes that. The framework is still acceptable because they explicitly compare repurchase returns to contracted growth returns.

M&A is mixed but not disqualifying. Vivint created a recurring smart-home segment with FY2025 revenue of $2.144 billion and adjusted EBITDA of $1.092 billion, but GAAP operating income was only $53 million, so the quality of earnings remains heavily adjusted by amortization and customer-acquisition accounting. LS Power could be a better strategic fit because it deepens NRG's core power platform, but it materially raises leverage and execution complexity. This is the single largest capital allocation item to monitor.

4. Compensation Alignment

The 2026 proxy shows a compensation design that is broadly aligned but not perfect. Annual incentives are based 45% on adjusted FCF before growth, 45% on adjusted EBITDA and 10% on non-financial metrics, subject to a plus or minus 20% individual modifier and a 0%-200% payout range. Long-term incentives are 67% relative performance stock units and 33% time-based RSUs, with relative TSR measured over three years. That is a good mix for an energy company where EPS alone could be overdriven with leverage or buybacks. Cash flow, EBITDA and TSR all matter.

Ownership is strong. The proxy reports Coben beneficially owning 361,578 shares and Chung 60,491 shares as of March 3, 2026, while Gaudette owned 48,528 shares. Stock ownership guidelines are also met by wide margins: Coben at 45.2x salary versus a 6x target, Chung at 16.9x versus 3x, and Gaudette at 14.0x versus 3x. This is real skin in the game, although the

beneficial ownership table includes vested and unsettled equity and deferred stock units, not only open-market common shares.

The compensation yellow flag is the 2025 decision to remove the 6x value cap from outstanding 2023-2025 RPSUs and future awards. The explanation is more persuasive than many in-flight modifications: three-year TSR was 426% and 98th percentile, the cap had started to reduce share payouts as stockholder value rose, and the company engaged holders representing roughly 40% of shares before acting. Still, changing in-flight awards is never ideal. The mitigating facts are that the amendment did not change performance thresholds or the 200% maximum payout, and disclosure was detailed.

Clawback, anti-hedging and anti-pledging policies are in place. The proxy says incentive compensation must be recovered after qualifying restatements, with no indemnification for erroneously awarded compensation; it also says executive officers, directors and employees may not hedge or pledge NRG securities. SBC discipline is acceptable in aggregate: diluted share count fell from 245 million in FY2021 to 199 million in FY2025 despite equity compensation, so shareholders have not been diluted on a net basis.

5. Disclosure Quality And Candor

I reviewed live FMP transcript pulls for the last eight reported quarters, Q1 2024 through Q4 2025. The pattern is positive. Management gives segment EBITDA bridges, capital allocation waterfalls, share repurchase prices, data-center MWs, Texas Energy Fund status, VPP targets and guidance assumptions. They also disclose what is not in the outlook. In Q4 2025, Coben emphasized that the long-term outlook excludes additional data-center contracts and higher power/capacity prices beyond the embedded plan. That is useful voluntary disclosure.

Guidance discipline has been strong. Across the eight-quarter review, the company repeatedly reaffirmed guidance early in the year, raised it as evidence accumulated, and then delivered above midpoint or above raised ranges. The Q4 2025 call framed 2025 as the third consecutive year of raising the outlook and delivering above it. That said, adjusted metrics are central. NRG's narrative leans heavily on adjusted EBITDA, adjusted EPS and free cash flow before growth, while GAAP EPS and FMP free cash flow are noisier. A skeptical investor should always reconcile adjusted cash flow with GAAP operating cash flow, capex, debt and working capital.

Question handling is above average. On data-center pricing and contract risk, Gaudette and Coben answered with contract duration, capacity-heavy structure, return hurdles and customer credit screens. On buyback pressure from data-center capex, Chung said investors should not assume project finance and should think about corporate-style capitalization around the 3x leverage target. On gas-build cyclicality, Coben directly rejected speculative build. These are not evasive answers. The more promotional language, "best is yet to come" and "NRG rocket ship" in the succession release, is not helpful for underwriting, but it is not the core of their investor communication.

Hedged-language count is manageable. "Headwinds" appears in some quarters, but management usually identifies the actual issue: higher regional retail power supply costs, planned maintenance, Indian River retirement, sale of Airtron, Cottonwood lease expiration, and cost to serve. The company does not provide product-level revenue for data centers, VPP or Vivint services, which is a data gap, but it is a real disclosure limitation rather than a sign of hiding a required metric.

6. Strategic Coherence

The 2025 10-K states that NRG's strategy is to maximize shareholder value by delivering integrated energy and smart-home solutions, supported by owned generation and diversified supply. It describes a customer-first platform focused on reliability and affordability amid rapid power-sector change, with opportunities in demand response, VPPs, commercial generation and large-load/data-center demand. The investment pattern matches that description: Rockland gas assets, LS Power/CPower, TEF-backed Texas builds, residential VPP, C&I demand response, and long-term retail power agreements for data centers.

The five- to ten-year destination is clearer than it was before 2023: a larger integrated retail/generation platform with consumer smart-home relationships, controllable demand response, owned and contracted generation, and contracted large-load power. Management is not trying to be everything in energy. The main strategic risk is that "Bring Your Own Power" becomes a justification for overbuilding gas assets if customer contracts weaken or if data-center demand disappoints. Management has named that risk indirectly by stressing customer-backed contracts, affordability and return hurdles. The board and investors should hold them to it.

7. Governance Flags

No dual-class structure exists. Related-party governance is standard: the proxy discloses a written related-person policy for transactions above $50,000 and Governance and Nominating Committee review. The proxy does not disclose a material related-party transaction section beyond the policy discussion. Section 16 compliance had one administrative late Form 4 for Bentley's initial RSU/RPSU awards, not a substantive pattern.

The 2025 10-K reports management concluded internal control over financial reporting was effective as of December 31, 2025, and KPMG expressed an unqualified opinion. The cover-page indicators show no correction of an error to previously issued financial statements and no restatement-triggered clawback analysis. I found no recent SEC enforcement issue in the live primary materials reviewed.

Insider selling is not clean enough to ignore but does not rise to a fail signal. SEC Form 4 review since April 30, 2025 shows several executive sales in January 2026 after major equity vesting: Gaudette sold 45,000 shares, Chung sold about 20,000 shares across two reported transactions, and Curci sold more than 100,000 shares. The relevant Form 4 footnotes say those sales were pursuant to Rule 10b5-1 trading plans; many other January dispositions were tax-withholding surrenders tied to vested RSUs/RPSUs. Kinney also sold 5,000 shares in March 2026 under a 10b5-1 plan adopted August 8, 2025. The scale is worth monitoring after a large stock run, but the plans, tax-withholding context and continued ownership multiples reduce concern.

8. Peer Comparison

The realistic public peer set is Vistra, Constellation Energy and, to a lesser degree, AES or integrated competitive utility peers. Vistra's Jim Burke has the cleanest direct capital-allocation comparison: Vistra has combined large buybacks with nuclear and gas optionality, and 2025-2026 communications show a similarly explicit balance between shareholder returns, growth investments and leverage. On a per-dollar basis, Vistra still ranks ahead because its nuclear optionality and buyback timing produced a larger visible rerating with fewer moving pieces than NRG's current retail/smart-home/gas/VPP mix.

Constellation's Joe Dominguez ranks ahead on strategic clarity and policy positioning. Constellation's nuclear base, Calpine acquisition and large-load carbon-free power narrative are more differentiated than NRG's gas-led "Bring Your Own Power" approach. Constellation also communicates long-term base earnings growth with a high degree of strategic confidence. NRG's advantage versus Constellation is flexibility: it can serve retail load, C&I customers, gas generation and demand response across markets without being defined only by nuclear scarcity.

Against these peers, NRG's management ranks middle to upper-middle. It is more candid and financially disciplined than the average merchant power or retail energy team, but less proven than Vistra and Constellation in post-rerating capital deployment. Gaudette may close the gap if he converts LS Power, CPower, TEF projects and data-center contracts into contracted cash flow without leverage slippage.

9. Management Gate Verdict

Management gate: **YELLOW**. The positives are substantial: Coben, Chung and Gaudette have delivered three years of guidance credibility, large per-share value creation, meaningful buybacks, improving disclosure, strong ownership alignment and a strategy that ties directly to observable investment. The governance base is acceptable, and the board's planned separation of chair and CEO is a positive step. The reasons this is not PASS are equally concrete: the CEO transition is happening now; Gaudette has to prove public-company CEO capital allocation; the LS Power acquisition is large, levered and not yet seasoned; and the compensation committee modified in-flight RPSU economics after a major stock run. The right underwriting stance is constructive but watchful: this team has earned a chance to compound, but the thesis should require evidence of post-LS integration, leverage discipline and contracted-return discipline before management becomes a full green-light gate.

Source Notes

Primary live sources reviewed: NRG 2026 DEF 14A filed March 18, 2026; NRG FY2025 Form 10-K filed February 24, 2026; NRG January 7, 2026 leadership succession release and related 8-K; NRG April 7, 2026 board-resignation 8-K; NRG April 28, 2026 notes issuance 8-K; NRG Q4/FY2025 earnings event materials; live FMP earning-call-transcript endpoint for NRG Q1 2024 through Q4 2025; and the verified ER2 data package Sections 7 and 9 for capital allocation and corporate actions.

Appendix W - Moat and 2046 Durability

NRG Energy, Inc. (NRG) - Moat and 2046 Durability

Stage 0 anchor: today is 2026-04-30. NRG's fiscal year ends December 31. The latest reported quarter is Q4/FY2025, ended 2025-12-31; the TTM anchor is Q1-Q4 2025, ending 2025-12-31. The TTM+5y horizon is 2030-12-31, and the 20-year durability test date is 2046-04-30.

Refresh note: this appendix has been revised after the reviewed segment appendices were completed. Segment composition, revenue, margin, management commentary, data gaps, and segment-level moat conclusions now tie to the verified data package and the completed Texas, East, West/Other, and Vivint Smart Home appendices. Competitive and durability context also uses live SEC/IR and market sources: NRG's FY2025 Form 10-K, NRG's February 24, 2026 FY2025 results release, NRG's May 12, 2025 LS Power announcement, PJM's 2025 Annual Report and 2026 long-term load forecast update, and ADT's current smart-home/security competitive disclosures.

1. Moat Taxonomy Applied

Network effects. NRG does not have a true network effect in the software-platform sense. A new retail electricity customer does not make the service more valuable for another customer, and a new generation plant does not directly improve the product for another power user unless it improves NRG's supply portfolio and risk position. Vivint has a device and data layer across more than 37 million connected in-home devices, but that is better classified as installed-base switching cost and proprietary operating data than a self-reinforcing marketplace network. CPower, acquired with LS Power after the FY2025 TTM anchor, has demand-response aggregation characteristics: more C&I customers can improve geographic and load-shape diversity. Still, the value does not compound like a payments network or social graph; it remains constrained by contract economics, grid rules, and customer participation.

Switching costs. Switching costs are real but uneven. Residential electricity in competitive markets is explicitly switchable; NRG's 10-K says customers in deregulated Texas can choose providers based on the most appealing offers, and the market remains fragmented. That weakens the moat in pure retail energy. Switching costs are stronger in Vivint, where the customer has installed hardware, an app, professional monitoring, service history, and household routines tied to one platform. NRG reported an average Vivint customer lifetime of approximately nine years as of 2025, and 2.419 million ending Vivint customers. Commercial and data-center power agreements also carry switching costs once a load is site-specific, contractually committed, and structured around reliability, capacity, and risk-management needs. The moat is not "customers can never leave"; it is that replacement requires a new supplier that can match price, collateral, reliability, contract flexibility, and operating execution.

Scale economies. This is NRG's clearest moat source. The 2025 10-K describes approximately 8 million residential customers, including about 6 million retail energy customers and 2 million smart-home customers, plus large commercial, industrial, data-center, and wholesale customers. It also describes NRG as one of the largest competitive U.S. energy retailers, with 154 TWh of electricity sold and 1,857 MMDth of natural gas sold in 2025. Scale matters because customer acquisition, billing, forecasting, hedging, collateral management, call centers, commodity procurement, and plant optimization are fixed-cost and capability-heavy functions. A subscale retail supplier can copy a rate offer, but it cannot easily copy the portfolio breadth, risk systems, supply access, credit lines, or retail brand mix needed to survive volatile power and gas markets.

Brand. Brand helps most in Texas retail and Vivint, but it is not a stand-alone moat. Reliant, NRG, Direct Energy, Green Mountain Energy, and Vivint give the company recognized customer-facing names. That reduces customer acquisition friction and supports retention when prices are close. But energy customers are price sensitive, and smart-home customers can compare ADT, Ring, SimpliSafe, Google/Nest, Comcast/Xfinity, and local installers. Brand is a supporting asset, not a barrier that prevents competition.

Regulatory and physical chokepoints. NRG has no protected regulated utility service territory moat. Its markets are deliberately competitive. The relevant chokepoint is physical and market-structure based: dispatchable generation, sites, interconnection positions, capacity-market accreditation, Texas Energy Fund financing, and the ability to combine retail load with owned or contracted supply. NRG's FY2025 release says the LS Power/CPower transaction closed on January 30, 2026 and added 13 GW of natural-gas and dual-fuel facilities plus CPower's C&I demand-response platform. The same release says NRG has three Texas Energy Fund projects totaling 1.5 GW, supported by $1.15 billion of low-interest financing, with the first expected online in June 2026. These are not monopoly rights, but in a market where permitting, interconnection, fuel

access, construction cost, and time-to-power are binding constraints, existing dispatchable capacity is a more durable advantage than a retail offer.

IP and patents. NRG should not receive an IP moat credit. Vivint has software, device integration, AI/machine-learning features, and operating know-how, but the smart-home category is technically contestable. ADT is rolling out its ADT+ platform and integrating Google Nest and Yale devices, while DIY providers compete with cheaper, lower-touch offerings. NRG's moat does not rest on patents that block competitors from serving the same household or power customer.

High-trust procurement. This is an important but underappreciated moat in NRG's business-to-business and data-center work. A hyperscaler or industrial buyer is not buying a generic kWh alone; it is buying reliability, time-to-power, collateral strength, risk transfer, contract structuring, and credible execution through market volatility. NRG's Q3 2025 release disclosed long-term data-center retail power agreements totaling 445 MW across ERCOT and PJM, and the FY2025 release emphasized a "bring your own power" strategy. That procurement trust is not permanent, but it is difficult for an undercapitalized entrant to replicate because failure is operationally costly for the customer.

2. Per-Segment Moat

Texas. Texas is the best segment moat, consistent with the completed Texas appendix's conclusion that this is NRG's highest-quality energy segment but not a clean monopoly. The segment combines a large retail book, recognized brands, owned/contracted generation, market operations, Texas site control, VPP initiatives, and TEF-supported new generation. FY2025 revenue was $11.139 billion, operating income was $1.113 billion, and adjusted EBITDA was $1.877 billion. The segment appendix frames the moat as an execution and integration moat: retail scale gives NRG customer data, brand reach, and procurement visibility; integrated supply gives it more tools than a pure reseller; VPP and data-center contracts favor firms that can combine customer devices, wholesale-market knowledge, dispatchable power, and risk terms. The moat is not simply "Texas demand growth"; it is the integrated ability to price retail load, optimize supply, run plants, hedge exposures, and create new large-load products. Durability is strong over five years, plausible over ten, and yellow over twenty because ERCOT market design, affordability politics, extreme weather, distributed generation, storage, and new capacity can change the economics. Earliest break signs: Texas retail customer losses, reduced plant availability, inability to pass through supply cost, TEF project delays, VPP economics failing to stabilize peak exposure, or data-center contracts shifting to rivals with better dedicated power.

East. East is large but less moat-like in the FY2025 base. It had $14.263 billion of revenue, $706 million of operating income, and $981 million of adjusted EBITDA. The reviewed East appendix calls the segment a moderate, cyclical moat rather than a high-quality compounder moat. The protective elements are scale, customer relationships, integrated retail-generation risk management, market knowledge, collateral capacity, and dispatchable capacity exposure in tightening power markets. The weak points are just as important: retail customers can leave, capacity rules can change, fuel spreads and plant availability can move against NRG, and FY2021-FY2025 operating margin swung from 14.6% to 1.9% to negative 13.8% to 15.4% to 5.0%. Its competitive position improves after LS Power because PJM and other eastern markets need dispatchable capacity and demand response, but FY2025 showed higher cost to serve retail load and maintenance pressure. PJM's 2025 Annual Report shows tightening capacity conditions: the 2027/2028 auction fell short of reliability requirement by 6,517 MW, while demand growth continued to outpace new resources. That supports owned capacity economics, but it also invites regulatory intervention to protect customers from high capacity costs. Durability is medium over five years, medium-low over ten, and yellow over twenty. Earliest break signs: capacity-market rule changes that cap returns, accelerating plant retirements without replacement economics, poor LS Power/CPower allocation economics, or East retail margin compression persisting despite capacity strength.

West/Other. West/Other has the weakest moat. FY2025 revenue was $3.202 billion, operating income was $149 million, and adjusted EBITDA was only $137 million including corporate activities in the headline table. The completed West/Other appendix is explicit: this is a narrow operational moat, not a durable franchise moat. Procurement scale, risk controls, market participation capability, customer systems, collateral capacity, and parent-company knowledge transfer may help NRG stay in complex western and Canadian markets, but the segment does not disclose recurring backlog, long-term contracted revenue, owned capacity by region, customer retention, market share, or product-level gross margin. The segment was affected by the Airtron sale and Cottonwood lease termination, and it lacks the clean integration story of Texas or the post-LS Power scarcity setup of East. Durability is low to medium over five years and weak beyond ten unless the portfolio is repositioned into contracted capacity, VPP, or differentiated customer solutions. Earliest break signs: continued revenue decline, low-single-digit operating margins, competitive procurement pressure in western markets, or management using the segment mainly as a residual bucket.

Vivint Smart Home. Vivint's moat is different and more recurring. FY2025 revenue was $2.144 billion, operating income was $53 million, and adjusted EBITDA was $1.092 billion. GAAP operating income is depressed by amortization and customer acquisition/accounting effects, so adjusted EBITDA and retention metrics matter. The completed Vivint appendix characterizes the segment as a real but not impregnable moat: the strongest element is the installed customer base, followed by monitoring/service infrastructure and NRG-specific optionality from linking home devices to retail energy, demand response, VPP, backup power, and home energy management. NRG reported record new customer adds, strong retention, higher monthly recurring service margin per customer, an average customer lifetime of about nine years, and more than 37 million connected devices. The moat is installed hardware, professional monitoring, home service, app habituation, and cross-sell into energy/VPP. The weak part is the device and software layer: ADT, Alarm.com, Ring/Amazon, Google/Nest, SimpliSafe, cable/telecom bundles, Resideo, Matter-compatible devices, and AI-enabled self-service can reduce switching friction or acquisition economics. Durability is good over five years and plausible over ten, but yellow over twenty because DIY, platform ecosystems, telecom, interoperability, and lower-cost monitoring can pressure both acquisition cost and pricing. Earliest break signs: rising attrition, falling service margin per customer, deteriorating payback on new customers, weaker conversion of adjusted EBITDA into GAAP operating income and FCF, or rapid DIY share gains.

The reviewed segment work reinforces the same blended conclusion: the company moat is weaker than Texas or Vivint alone. Texas supplies the strongest segment-level evidence, Vivint supplies the recurring installed-base evidence, East supplies valuable but cyclical capacity optionality, and West/Other mostly dilutes moat quality. A buyer of NRG equity owns a competitive energy portfolio with some durable physical and customer advantages, not a clean compounding monopoly.

3. Margin Persistence Evidence

Consolidated operating margins do not show a wide moat. The data package reports FY2021-FY2025 operating margins of 12.4%, 6.4%, 1.3%, 8.6%, and 6.0%. That is not stable. It reflects commodity exposure, mark-to-market effects, asset sales, weather, maintenance, and supply-cost volatility. On a consolidated GAAP operating-margin basis, the evidence supports a cyclically advantaged operator, not a structurally high-return franchise.

Segment margins sharpen the picture. Texas margins were 12.5%, 12.5%, 29.6%, 5.0%, and 10.0% from FY2021-FY2025. The average is attractive, but the path is volatile. East margins were 14.6%, 1.9%, negative 13.8%, 15.4%, and 5.0%; that is too volatile to call a durable segment moat on historical margins alone. West/Other was 3.1%, 11.9%, negative 20.3%, 2.1%, and 4.7%, reinforcing the weak-moat view. Vivint is too short a public segment history after the 2023 acquisition: GAAP operating margins were 3.1%, 6.2%, and 2.5% for FY2023-FY2025, while adjusted EBITDA margins were much higher, around the low-50% range in 2025 quarterly disclosures. Vivint's economic moat evidence is retention and recurring service economics, not GAAP segment operating margin.

The conclusion is mixed. NRG has operational skill and assets that can produce large profits, especially in Texas and Vivint, but the historical consolidated record does not prove persistent pricing power in the way a software, exchange, or regulated utility franchise would.

4. AI Disruption Stress Test

Texas and East are not primarily AI-replaceable workflows. They are physical capacity, risk management, customer contracts, fuel, hedges, dispatch, interconnection, and regulatory-market participation. AI can improve load forecasting, plant maintenance, customer service, pricing, fraud detection, and hedge analytics, but it does not remove the need for actual generation, credit, collateral, dispatch rights, capacity accreditation, or a retail license. If anything, AI-driven data-center demand raises the value of power availability in ERCOT and PJM. PJM's 2026 long-term forecast update expects its summer peak to exceed 253 GW by 2046, with 10-year summer peak growth far above the 2021 forecast because of data-center impacts. That supports the physical chokepoint thesis, while also raising political risk over who pays.

West/Other is also not directly replaceable by AI, but it has less protected economics. AI may improve operations, but it will not create a moat where scale and asset position are modest. The segment most exposed to AI-enabled competition is Vivint. Smart-home monitoring, customer service, camera analytics, false-alarm detection, predictive maintenance, and home energy recommendations are all software-heavy workflows. Foundation models and edge AI can help competitors offer better self-service and lower-touch monitoring. Vivint's defense must therefore live in installation, installed devices, monitoring trust, retention, service operations, and energy/VPP integration. If those weaken, the smart-home software layer becomes contestable.

The most AI-protected segment is Texas/post-LS Power integrated power. AI raises demand for the product and may make reliability more valuable. The caveat is that AI also accelerates customer sophistication: hyperscalers may backward-integrate

into power, co-develop generation, or demand better terms from suppliers.

5. The 2046 Test

On 2046-04-30, a durable NRG would be a North American competitive energy and home-platform company selling electricity, natural gas or successor thermal fuels, firm capacity, demand response, reliability products, energy management, and smart-home services. Its customers would include households, small businesses, commercial and industrial accounts, hyperscale and enterprise data centers, grid operators, and wholesale counterparties. Texas and East would still exist, though the labels may be redesigned around ERCOT, PJM/Northeast, large-load solutions, and VPP. West/Other would likely either be folded into a broader customer/supply platform or remain a small residual portfolio. Vivint would survive if it becomes an energy-aware home operating layer rather than a standalone security installer.

The 2046 operating margin should be stable to modestly higher than FY2025 only if the integrated model works: retail load is priced rationally, dispatchable capacity remains scarce, VPP capacity earns reliable market revenue, and Vivint reduces churn while cross-selling energy services. The moat that remains intact is not a brand slogan; it is the combination of customer relationships, installed devices, dispatchable capacity, demand-response aggregation, market operations, and high-trust procurement for large loads. This is a plausible 2046 company, which keeps the 2046 test out of fail territory.

The bear-case 2046 description is also plausible. In that version, retail energy is increasingly commoditized by digital switching and regulatory price pressure; capacity-market returns are capped after customer backlash; batteries, renewables, nuclear restarts, or hyperscaler-owned generation reduce scarcity rents; gas plants face emissions and fuel-cost burdens; and DIY/platform smart-home systems erode Vivint's acquisition economics. NRG still operates, but it earns utility-like or merchant-cycle returns on a leveraged asset base rather than high returns on a durable franchise. I would assign that bear case a medium probability because it does not require a science-fiction disruption; it requires ordinary political, technological, and competitive pressure over twenty years.

6. Competitive Threat Inventory

Threat	Mechanism	Segment(s) affected	Earliest observable signal	Plausibility
Retail energy price competition	Customers switch to lower offers; brokers and digital channels compress spread	Texas, East, West/Other	Falling residential/customer counts or lower retail gross margin despite stable load	High
Capacity-market and affordability intervention	Regulators cap capacity prices, shift costs, alter market rules, or impose consumer protections	East, Texas, large-load power	PJM/ERCOT/PUCT/FERC rule changes limiting returns or forcing cost socialization	Medium-high
Smart-home platform/DIY pressure	ADT/Google, Ring, SimpliSafe, telecoms, or AI-native monitoring lower acquisition cost and monthly fees	Vivint	Rising attrition, lower new adds, weaker monthly recurring service margin	Medium
Hyperscaler power backward integration	Large data-center customers procure, build, or partner around generation directly	Texas, East, data-center contracts	NRG loses long-term data-center deals despite site/generation availability	Medium
Execution and leverage after LS Power	Integration, maintenance capex, outages, debt burden, or synergy misses dilute the asset advantage	Corporate, East, Texas	Net debt stays above targets or acquired fleet EBITDA misses guidance	Medium

7. Pricing Power Verification

NRG has observable pricing power in pockets, not across the whole company. The best positive evidence is Vivint: FY2025 adjusted EBITDA grew because of customer count, strong retention, and higher monthly recurring service margin per customer. That is pricing or mix power, though it must be tested against customer acquisition cost and churn. Texas also showed improved margins and supply-cost optimization in FY2025, with $1.877 billion of adjusted EBITDA and a 10.0% operating margin. The data-center agreements are another sign: management disclosed 445 MW of long-term retail power agreements across ERCOT and PJM and discussed premium pricing in the 2025 calls, though product-level revenue and EBITDA are not yet disclosed.

The negative evidence is equally important. NRG's own 10-K risk language says retail rates are generally designed to pass through cost changes, but the company may not pass through all changes to customers; capacity costs and fixed-price sales can create unrecovered exposure. The FY2025 East segment declined because higher cost to serve retail load and

maintenance more than offset capacity and gas wholesale positives. The consolidated operating margin history is too volatile to call pricing power broad-based. Contract structures help where NRG has multi-year business, data-center, hedging, and capacity arrangements, but retail electricity remains competitive and politically sensitive.

8. Moat Verdict

Moat gate: YELLOW. NRG has a real moat in integrated Texas retail/supply/generation, meaningful scale economies, Vivint switching costs, and post-LS Power physical capacity plus CPower demand response. But the moat is not wide at the consolidated level because most revenue sits in competitive energy markets with volatile margins, price-sensitive customers, regulatory intervention risk, and commodity exposure.

2046 test: YELLOW. A specific 2046 NRG can be described: a large-load, retail energy, dispatchable capacity, VPP, and smart-home platform serving households through hyperscalers. The test does not pass cleanly because twenty-year durability depends on market rules, affordability politics, generation technology, emissions constraints, and Vivint's ability to resist AI-enabled DIY/platform pressure.

The segments driving the positive case are Texas and Vivint, with East becoming more valuable if LS Power and CPower translate into reliable capacity and VPP economics. West/Other does not carry the moat. The moat is investable but conditional: it must be monitored through customer retention, segment margins, capacity-market rules, data-center contract wins, plant availability, and post-acquisition leverage.

Source Index

- NRG Energy FY2025 Form 10-K, SEC, filed February 24, 2026: https://www.sec.gov/Archives/edgar/data/1013871/000101387126000004/nrg-20251231.htm
- NRG Energy FY2025 results release, February 24, 2026: https://investors.nrg.com/node/45311/pdf
- NRG Energy LS Power acquisition announcement, May 12, 2025: https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-acquire-premier-power-portfolio-ls-power
- NRG Energy Q3 2025 release, data-center and segment updates: https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-reports-third-quarter-results-reaffirms-2025
- PJM 2025 Annual Report, Markets: https://services.pjm.com/annualreport2025/markets/
- PJM 2026 long-term load forecast update: https://insidelines.pjm.com/pjms-updated-20-year-forecast-continues-to-see-significant-long-term-load-growth/
- ADT FY2025/Form 10-K competitive smart-home context: https://s201.q4cdn.com/833622905/files/doc_financials/2025/q4/ADT-10-K-12-31-2025.pdf

Appendix B1 - East

East - Segment Deep Dive

Company: NRG Energy, Inc. Ticker: NRG Segment: East Prepared for ER2 Production Mode Stage 0 anchor: TTM equals Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025, ending 2025-12-31. TTM+5y horizon equals 2030-12-31.

0. Segment Boundary And Taxonomy Note

East is one of NRG's four current reportable segments. In the verified data package, East includes customer, plant and market operations in eastern U.S. markets, with PJM, New York, and New England exposure. The controlling FY2025 taxonomy is the 2025 Form 10-K segment footnote as summarized in the verified data package. East is stable as a named segment across FY2021-FY2025, but it is not a stable product taxonomy: NRG does not disclose separate East revenue for retail electricity, retail natural gas, generation, capacity, data-center contracts, or wholesale optimization. The data package explicitly says the most granular dollar-disclosed revenue line is the East reportable segment itself. This appendix therefore models East as a disclosed segment line, not as fabricated product lines below the segment.

The main comparability issue is not a segment restatement inside East; it is the absence of product-level disclosure and the post-TTM acquisition timing. LS Power/CPower closed on 2026-01-30, after the 2025-12-31 TTM anchor. The data package says the acquisition adds 13 GW of natural-gas and dual-fuel assets across nine states and a 6 GW C&I demand-response platform, but it also flags that post-LS Power segment taxonomy had not yet been reported in a full 10-Q as of 2026-04-30. East likely has material PJM exposure to the acquired assets, but the verified package does not allocate LS Power revenue, EBITDA, debt, or capacity by segment. The forecast cases below include market and management context from LS Power only as a qualitative upside/risk driver. They do not insert an undisclosed acquisition revenue line into East.

1. What This Segment Actually Is

East is NRG's eastern U.S. integrated energy franchise. It combines retail load-serving activity, natural gas and power customer margin, owned generation, capacity-market participation, and market optimization across competitive eastern power markets. The segment is less like a regulated utility and more like a merchant-retail energy platform: NRG serves customers, procures or produces energy and capacity, manages commodity exposure, and earns margin when its portfolio of customer relationships, generation, hedges, and market positions performs better than the cost to serve load.

The data package describes East as customer, plant and market operations in eastern U.S. markets. It specifically references PJM, New York, and New England exposure. That matters because the economics differ from Texas. ERCOT is an energy-only market with scarcity pricing and no centralized forward capacity market. East has a heavier overlay of capacity payments, regional reliability rules, environmental/retirement policy, and state-level customer affordability politics. A generator in PJM can earn energy margin when dispatched, ancillary services in certain periods, and capacity revenue through Reliability Pricing Model auctions or bilateral arrangements. A retailer can earn customer margin, but retail margin can compress quickly when wholesale costs rise faster than pass-through or customer pricing resets.

The segment's customer product is not disclosed as a separate dollar line. In practice, East retail revenue is likely driven by electricity and natural-gas volumes, customer count, contract pricing, churn, weather, and pass-through commodity costs. The generation and wholesale side is driven by plant availability, spark spreads, capacity accreditation, capacity auction clearing prices, congestion, and hedging discipline. Because NRG does not disclose those product splits, the segment model must stay at the level of East revenue and East operating margin. Any forecast that pretends to know "East retail revenue" or "East generation revenue" in FY2025 would be false precision.

The key strategic reason East matters is that it is NRG's largest FY2025 revenue segment, but not the largest profit segment. FY2025 East revenue was $14.263 billion, or 46.4% of FY2025 consolidated revenue, while East operating income was $0.706 billion and adjusted EBITDA was $0.981 billion. Texas had lower revenue but much higher adjusted EBITDA. East therefore has two jobs in the combined model. First, it must not destroy enterprise-level earnings through cost-to-serve volatility. Second, it has a credible upside path if PJM capacity tightness, data-center load growth, and dispatchable-generation scarcity translate into durable capacity and wholesale margins.

2. Current Economics

The verified data package anchors East FY2025 revenue at $14.263 billion, GAAP operating income at $0.706 billion, and adjusted EBITDA at $0.981 billion, citing QF P2, the 2025 10-K segment table, and the FY2025 IR release in Sections 1 and 3. East's FY2025 operating margin was 5.0% on a GAAP segment operating-income basis. Adjusted EBITDA margin was 6.9%. The difference between the two is meaningful, but smaller than in Vivint. For East, GAAP operating income is still a useful profitability anchor because generation, retail, and market operations are closer to recurring operating economics than acquisition-amortization-heavy smart-home accounting.

East's historical pattern is volatile. Per data_package Section 3, East revenue was $13.025 billion in FY2021, $16.763 billion in FY2022, $12.549 billion in FY2023, $11.709 billion in FY2024, and $14.263 billion in FY2025. Operating income was $1.901 billion in FY2021, $0.318 billion in FY2022, $(1.731) billion in FY2023, $1.806 billion in FY2024, and $0.706 billion in FY2025. This is not a clean subscription curve. It is a commodity-linked and market-rule-linked profit pool with integrated retail/generation offsets that can work well in some years and poorly in others.

The latest annual result is a mixed base. Revenue rebounded 21.8% in FY2025 after falling 6.7% in FY2024 and 25.1% in FY2023. Operating margin fell from 15.4% in FY2024 to 5.0% in FY2025, even as revenue rose. The data package says Q3/Q4 2025 commentary identified higher cost to serve retail load, planned maintenance, and the Indian River retirement as negatives, partly offset by higher capacity prices and natural-gas wholesale margins. That is the central modeling tension: East has a strong revenue base and real capacity-market tailwinds, but cost to serve and plant availability can dominate reported operating income in individual years.

Quarterly FY2025 adjusted EBITDA also shows that East is not simply a fourth-quarter seasonal story. Data_package Section 5 gives Q1 2025 East revenue of $4.577 billion with $0.474 billion of adjusted EBITDA, Q2 revenue of $2.737 billion with $0.099 billion of adjusted EBITDA, Q3 revenue of $3.030 billion with $0.107 billion of adjusted EBITDA, and Q4 revenue of $3.919 billion with $0.301 billion of adjusted EBITDA. The year had a strong first quarter, weak middle quarters, and better fourth quarter. Annual GAAP operating income of $0.706 billion therefore should be treated as a through-cycle base, not a clean run-rate margin.

Capital intensity is not disclosed separately for East in the data package. NRG's consolidated FY2025 capex was $1.147 billion, or 3.7% of revenue, but the segment allocation is not provided. East's economic capital intensity should be viewed as medium to high in risk terms even if maintenance capex is not separately disclosed. Owned generation requires plant maintenance, outage work, environmental compliance, collateral support, and risk management infrastructure. Retail energy requires less physical capex but meaningful working capital, collateral, customer acquisition, billing, and credit infrastructure. Because the segment is integrated, margin can look asset-light in a benign year and capital/risk-heavy in a stressed year.

3. Unit Economics

East revenue becomes operating income through three connected channels. The first channel is retail gross margin: customer revenue minus power, gas, capacity, transmission, ancillary, bad debt, and customer-service costs. Retail margin is attractive when NRG prices customer contracts with adequate risk premiums, hedges wholesale exposure well, and retains customers without overpaying for acquisition. It weakens when capacity or energy costs rise faster than customer contract resets, when weather or load shape deviates from hedges, or when competitive retail markets force price concessions.

The second channel is generation and capacity economics. A dispatchable plant can earn energy margin when market prices exceed fuel and variable operating costs, can receive capacity revenue where it clears capacity auctions, and can provide flexibility value in tight systems. PJM's recent capacity results make this channel more important. PJM's 2025 annual market report says the 2026/2027 Base Residual Auction cleared at the FERC-approved cap of $329.17/MW-day and the 2027/2028 auction cleared at $333.44/MW-day. It also says forecasted peak load increased by more than 5,400 MW for 2026/2027 and that demand growth outpaced new supply. For East generation that clears capacity markets, this is a real profit tailwind. For East retail load, the same market condition is a cost-to-serve headwind unless passed through with timing and customer retention intact.

The third channel is portfolio optimization. Integrated retail and generation portfolios can reduce exposure to spot market extremes, but the hedge book has to be sized correctly. East's FY2025 results show both sides. The data package notes Q1 benefited from natural-gas wholesale/retail gross margins, weather volumes, generation volumes, and New York capacity prices. It also notes Q2 and Q3 were pressured by increased supply costs to serve retail load. The same regional tightness that raises capacity revenue can also raise procurement costs. The unit economics are therefore not "higher PJM price equals higher East earnings." The correct formulation is: higher capacity and scarcity prices help East if NRG has net long accredited capacity, well-priced retail contracts, available generation, and enough customer pass-through to keep retail margin whole.

Margin breaks down in three common ways. First, cost-to-serve rises before customer pricing catches up. Second, plant maintenance or retirement reduces generation availability just when capacity or energy markets are tight. Third, regulators or state political pressure cap the retail pass-through of wholesale costs or alter market rules to protect customers. Margin improves when NRG can reprice retail books, capture capacity revenue, optimize gas/power spreads, use demand response or C&I flexibility to reduce peak obligations, and contract with large loads in structures that avoid socializing costs to ordinary customers.

Given this structure, a normalized East operating margin range of 4% to 8% is more defensible than a straight extrapolation of either FY2024's 15.4% margin or FY2023's negative margin. FY2024 shows the upside if conditions and hedge/portfolio effects align; FY2023 shows the downside if they do not. FY2025's 5.0% margin is the TTM base and is close to the midpoint of a cautious through-cycle range.

4. Competitive Dynamics

East competes in deregulated retail and wholesale power markets against several classes of players. In retail energy, competitors include integrated power retailers, municipal/utility default supply programs, broker-mediated energy service companies, and national suppliers. In generation and capacity, competitors include independent power producers, regulated utility affiliates, nuclear operators, gas plant owners, demand-response aggregators, batteries, renewables, and behind-the-meter resources. In PJM specifically, scale and dispatchability matter because capacity accreditation, reliability performance, and congestion exposure all affect realized economics.

The structural backdrop has improved for owners of dispatchable and accredited capacity. PJM's annual market report says both 2025 auctions reflected tightening supply and increasing demand outpacing new supply. It also says the 2027/2028 auction fell short of PJM's reliability requirement by 6,517 MW, the first such shortfall since the auction was created in 2007. That context supports higher capacity value for reliable generation and demand response. It is not a permanent moat by itself, because high prices invite political intervention and new supply. But it does create a multi-year window in which existing assets with capacity accreditation can earn better returns.

Demand growth is the main macro driver. The EIA's March 2026 Today in Energy analysis says U.S. electricity demand grew about 1.7% annually from 2020 to 2025 after only 0.1% annually from 2005 to 2019. It expects the fastest load growth through 2027 in ERCOT and PJM, with PJM annual load growth averaging about 3% from 2025 to 2027. PJM's own 2025 long-term load forecast says summer peak load is projected to average 3.1% annual growth over the next ten years, winter peak 3.8%, and net energy load 4.8%. It specifically adjusts many zones for data-center load growth. This is favorable to East's total addressable market and to the scarcity value of capacity.

The competitive risk is that customers and states will not accept unlimited capacity cost pass-through. PJM's 2025 annual report says FERC-approved temporary price caps and floors for the 2026/2027 and 2027/2028 auctions were designed to balance investment signals with consumer protection. It also describes market-rule changes around demand response, price collars, capacity accreditation, and sub-annual capacity market options. For a generator, these reforms can preserve reliability payments. For a retailer, they can change cost recovery and customer bill pressure. For NRG as an integrated participant, the net effect depends on its physical and contractual positioning.

East's competitors with large nuclear, gas, or demand-response fleets may have strong capacity-market leverage. Nuclear-heavy competitors can offer high capacity reliability with low fuel price exposure. Gas-heavy competitors can benefit from flexibility but face fuel price and emissions risk. Demand response and C&I VPP platforms can compete for capacity value at lower physical capital intensity if market rules accredit them favorably. Batteries and renewables can affect energy prices and ancillary services, but their capacity contribution depends on accreditation and duration. East's moat is therefore not a classic brand moat; it is a portfolio/risk-management moat that can disappear if the company is on the wrong side of load, fuel, congestion, or regulatory change.

5. Segment-Level Moat

East has a moderate, cyclical moat rather than a high-quality compounder moat. The protective elements are scale, customer relationships, integrated retail-generation risk management, market knowledge, collateral capacity, and dispatchable capacity exposure in tightening power markets. Those are real advantages. They make it hard for a small retail supplier to match NRG's ability to hedge, serve load, manage collateral, and source generation. They also make it hard for a pure generator to capture retail margin and customer data.

The moat is weakest where commodity exposure dominates. A retailer can lose customers if pricing is uncompetitive. A generator can lose economics if capacity rules change, if fuel spreads collapse, if assets underperform, or if emissions/retirement policy forces capital spending. East's FY2021-FY2025 margin history proves that the segment does not have stable pricing power in the ordinary consumer-brand sense. Operating margin moved from 14.6% to 1.9% to negative 13.8% to 15.4% to 5.0%. A true software-like moat would not look like that.

The segment's most defensible angle is not price control; it is control over optionality. East can benefit from demand growth, high reliability value, data-center load, and dispatchable-generation scarcity if NRG can structure contracts so large-load customers pay for their own power rather than shifting costs onto the broader retail book. Management's "Bring Your Own Power" framing in the data package is important for that reason. It is less a marketing phrase than a risk allocation principle: if a data-center customer causes incremental capacity and generation requirements, NRG wants that customer to fund the resource economics.

Over five years, the moat is adequate if PJM stays tight and NRG is net long enough capacity to offset retail cost pressure. Over ten years, the moat is more uncertain. High capacity prices will invite new generation, demand response, storage, transmission reform, state procurement, and political pressure. If those responses work, scarcity profits normalize. If they do not work, customer affordability pressure rises and regulators can still change rules. East should therefore be modeled as a valuable but volatile contributor, not a durable high-ROIC annuity.

6. Historical Growth Rates - Reproduced From Data Package

All numbers in this section come from the verified data package, Section 3 "Segment Historicals," East table, and Section 4 "Product And Subsegment Dollar Disclosure." Revenue and operating income are in billions. The data package states that NRG does not disclose product-level East revenue below the segment line. The only dollar-disclosed row for East is the reportable segment itself.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	FY2022-FY2025 CAGR	Most recent YoY	Data package cite
East reportable segment	$12.549B	$11.709B	$14.263B	(5.3)%	21.8%	data_package Section 3, East table; Section 4, East rows
East retail energy and natural gas	Not separately disclosed	Not separately disclosed	Not separately disclosed	n/a	n/a	data_package Section 4, East retail row
East owned generation and capacity	Not separately disclosed	Not separately disclosed	Not separately disclosed	n/a	n/a	data_package Section 4, East generation/capacity row
East data-center / large-load exposure	No revenue recognized as separate product line	No revenue recognized as separate product line	No revenue recognized as separate product line	n/a	n/a	data_package Section 4, data-center row

Extended East segment history from the same source:

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Data package cite
East revenue	$13.025B	$16.763B	$12.549B	$11.709B	$14.263B	data_package Section 3, East table
East revenue YoY	n/a	28.7%	(25.1)%	(6.7)%	21.8%	data_package Section 3, East table
East operating income	$1.901B	$0.318B	$(1.731)B	$1.806B	$0.706B	data_package Section 3, East table
East operating margin	14.6%	1.9%	(13.8)%	15.4%	5.0%	data_package Section 3, East table

Arithmetic tie-out checks:

Check	Calculation	Result
FY2024 revenue YoY	$12.549B x (1 - 6.7%) = $11.708B	Ties to $11.709B within rounding
FY2025 revenue YoY	$11.709B x (1 + 21.8%) = $14.262B	Ties to $14.263B within rounding
FY2022-FY2025 CAGR	($14.263B / $16.763B)^(1/3) - 1	(5.3)%
FY2023-FY2025 clean two-year CAGR	($14.263B / $12.549B)^(1/2) - 1	6.6%
FY2021-FY2025 four-year CAGR	($14.263B / $13.025B)^(1/4) - 1	2.3%

The arithmetic supports a conservative modeling stance. The latest YoY growth rate of 21.8% is real, but it followed two down years and did not translate into a high operating margin. The FY2022-FY2025 three-interval CAGR is negative because FY2022 was a high revenue base. The FY2021-FY2025 four-year CAGR is only 2.3%. The FY2023-FY2025 two-year CAGR is 6.6%, but that period begins from a depressed FY2023 base. None of these rates is a clean organic demand curve.

[DATA GAP: NRG does not disclose East retail revenue, East generation revenue, East capacity revenue, East natural-gas revenue, East data-center revenue, customer count, load served, MWh sold, capacity MW, or plant-level operating income in the verified data package.]

7. Management Guidance Quoted From Data Package

The data package includes two East-specific forward commentary rows and several corporate rows relevant to East. The quotes below are short snippets from verified data_package Section 6, not re-fetched transcripts.

Date / period	Speaker / source	Verbatim quote snippet	Topic	Interpretation
2025-11-06 / Q3 FY2025	Larry Coben, FMP transcript as quoted in data_package Section 6	"across ERCOT and PJM."	Data-center agreement geography	The 445 MW data-center book includes PJM as well as ERCOT. This supports an East upside case from large-load agreements, but no East revenue dollars are disclosed.
2026-02-24 / Q4 FY2025	Bruce Chung, FMP transcript as quoted in data_package Section 6	"flat power and capacity prices"	Long-term outlook assumption	Management's long-term framework does not require rising power/capacity prices. This argues for not making the base case depend on further capacity price inflation after the already-known auction reset.
2026-02-24 / Q4 FY2025	Larry Coben/Bruce Chung, FMP transcript as quoted in data_package Section 6	"Bring Your Own Power"	Large-load strategy	The strategy seeks to keep data-center capacity costs with large-load customers rather than socializing them across ordinary retail customers. This is relevant to East because PJM affordability politics are intense.
2026-02-24 / Q4 FY2025	FMP transcript as quoted in data_package Section 6	"does not assume any additional data center contracts"	Base outlook conservatism	Management's consolidated long-term framework excludes new data-center deals beyond embedded contracts. East bull case can include additional contracts, but base case should not require them.
2026-02-24 / Q4 FY2025	FY2025 IR release as quoted in data_package Section 6	"14%+ extended through 2030"	Adjusted EPS growth target	The target is consolidated adjusted EPS, not East segment operating income. East must contribute without being credited for buybacks or Vivint mix.

The data package also states that East segment drivers in FY2025 included natural-gas wholesale/retail gross margins, weather volumes, generation volumes, New York capacity prices, increased supply costs to serve retail load, planned maintenance, and the Indian River retirement. This is a better modeling guide than the single annual revenue growth number. It says East is a portfolio of offsetting exposures, not a simple volume-growth business.

8. Forward Growth Assumptions

The TTM base for all cases is FY2025 East revenue of $14.263 billion. The forward endpoint is 2030-12-31, exactly five calendar years after the TTM anchor. Because no product-level East dollars are disclosed, the product table has one dollar-modeled line: East reportable segment. The other sub-lines are modeled qualitatively inside the justification.

Base-case logic: East grows faster than its FY2021-FY2025 2.3% CAGR but far slower than FY2025's 21.8% rebound. PJM/East load growth and capacity scarcity provide support, but retail cost-to-serve pressure and no disclosed product split prevent a high-growth base. A 2.5% revenue CAGR produces 2030 revenue of $16.137 billion.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
East reportable segment	(5.3)% from FY2022-FY2025	21.8%	No East revenue guide; management assumes flat power/capacity prices in long-term framework	2.5%	PJM load growth, capacity scarcity, and data-center optionality support modest nominal growth, but the history is volatile and no product-level expansion line is disclosed.
East retail energy and natural gas	Not separately disclosed	Not separately disclosed	No product guide	Embedded in East 2.5%	Retail growth is offset by affordability and cost-to-serve risk; assume price/volume growth roughly tracks regional load and inflation but does not compound like a software product.
East owned generation and capacity	Not separately disclosed	Not separately disclosed	Capacity price outlook not assumed to rise further	Embedded in East 2.5%	Capacity-market tightness supports revenue/margin, but known auction resets are partly absorbed into costs and customer pricing.
East data-center / large-load exposure	No disclosed revenue base	No disclosed revenue base	Existing 445 MW book includes PJM and ERCOT; no additional contracts assumed in base framework	Qualitative upside only	No separate historical revenue exists, so the base case does not add a hidden data-center revenue line.

Bear-case logic: East grows only 1.0% per year from the TTM base. This is not a collapse case; it assumes some nominal customer and price growth remains. The bear case is driven by retail churn, higher customer bills, slower data-center conversion, maintenance outages, and capacity-cost pass-through pressure. Revenue reaches $14.991 billion in 2030.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
East reportable segment	(5.3)%	21.8%	No East revenue guide	1.0%	High PJM prices become more of a customer bill and churn problem than a net revenue opportunity; generation availability and retirements limit upside capture.
East retail energy and natural gas	Not separately disclosed	Not separately disclosed	No product guide	Embedded in East 1.0%	Customer acquisition and retention weaken as competitors and default supply options pressure retail pricing.
East owned generation and capacity	Not separately disclosed	Not separately disclosed	No capacity-price inflation assumption	Embedded in East 1.0%	Capacity revenue remains useful, but plant performance, forced outages, or lower accredited capacity reduce benefit.
East data-center / large-load exposure	No disclosed revenue base	No disclosed revenue base	No additional data-center contracts assumed	Minimal contribution	PJM interconnection, siting, affordability, or customer-credit issues slow conversion from announced MW to durable revenue.

Bull-case logic: East grows 4.5% per year. This is below PJM's 2025 net energy load forecast of 4.8% over ten years and well below FY2025's rebound growth, but it gives credit for capacity scarcity, large-load contracting, and better use of dispatchable assets. Revenue reaches $17.774 billion in 2030.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
East reportable segment	(5.3)%	21.8%	No East revenue guide; data-center deals include PJM exposure	4.5%	PJM load growth, high capacity prices, and incremental large-load contracts allow East to compound above its long-term history without assuming another FY2025-style spike.
East retail energy and natural gas	Not separately disclosed	Not separately disclosed	No product guide	Embedded in East 4.5%	NRG reprices customers without major churn and uses scale to manage cost-to-serve volatility better than smaller suppliers.

Product	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
East owned generation and capacity	Not separately disclosed	Not separately disclosed	Flat power/capacity prices in base framework, but bull assumes stronger realized position	Embedded in East 4.5%	More accredited capacity clears high-value markets, plant availability improves, and market optimization captures scarcity value.
East data-center / large-load exposure	No disclosed revenue base	No disclosed revenue base	Existing 445 MW across ERCOT/PJM; additional contracts excluded from company base outlook	Qualitative upside inside 4.5%	Additional PJM large-load contracts or LS Power site opportunities add growth, but still without inserting an undisclosed product revenue line.

Year-by-year revenue path from the TTM base:

Case	2025 TTM base	2026E	2027E	2028E	2029E	2030E / TTM+5y	CAGR
Bear	$14.263B	$14.406B	$14.550B	$14.695B	$14.842B	$14.991B	1.0%
Base	$14.263B	$14.620B	$14.985B	$15.360B	$15.744B	$16.137B	2.5%
Bull	$14.263B	$14.905B	$15.576B	$16.276B	$17.009B	$17.774B	4.5%

The thesis-consistency check is important. East's latest YoY revenue growth was 21.8%, but the base CAGR is only 2.5%. That is a deliberate deceleration because the latest YoY figure came after two revenue declines and coincided with margin compression from 15.4% to 5.0%. The base case assumes FY2025 was a rebound and price/volume normalization year, not the first year of a 20% compounder. The bull case also avoids a heroic forecast: 4.5% is below PJM's 2025 ten-year net-energy load growth forecast, but East may not capture all regional load growth as revenue because of customer churn, contract timing, hedging, and cost pass-through.

9. Forward Operating Margin Assumptions

The TTM margin base is East FY2025 operating income of $0.706 billion divided by revenue of $14.263 billion, or 5.0%. The five-year margin cases use GAAP segment operating margin, not adjusted EBITDA margin. This keeps the segment compatible with the combined operating-income model.

Base-case margin rises to 6.2% by 2030. The mechanism is better capacity revenue, more stable plant availability, repriced retail contracts, and improved portfolio optimization, partly offset by customer affordability and maintenance costs. The improvement is 120 bps from FY2025, so it requires explicit support. The support is that FY2025 adjusted EBITDA was $0.981 billion, capacity prices in PJM are materially higher for future delivery years, and management says the long-term framework does not require rising power/capacity prices. If East can keep a portion of known capacity-price uplift while reducing cost-to-serve drag, a 6.2% operating margin is credible. It remains far below FY2021 and FY2024 peak margins.

Bear-case margin falls to 3.8%. The mechanism is higher retail cost to serve, weaker pass-through, customer churn, plant maintenance, and political pressure on wholesale-cost recovery. This is not a repeat of FY2023's negative 13.8%; it assumes management and hedging avoid the worst outcome. But it recognizes that East's historical margins have been unstable and that the same PJM tightness that benefits generation can hurt retail.

Bull-case margin rises to 8.0%. The mechanism is sustained capacity scarcity, stronger generation availability, better retail repricing, and large-load contracts structured so incremental costs are paid by the incremental customers. This is well below the FY2024 15.4% margin and FY2021 14.6% margin, but it would represent meaningful normalization above FY2025. It is intentionally capped at 8.0% because high East margins are politically and competitively exposed; customer affordability, market redesign, and new supply should limit how much of scarcity value becomes durable operating income.

Product / margin pool	Current margin evidence	Bear 2030 margin	Base 2030 margin	Bull 2030 margin	Justification
East reportable segment	FY2025 operating margin 5.0%; FY2025 adjusted EBITDA margin 6.9%; FY2021-FY2025 operating margin range from (13.8)% to 15.4%	3.8%	6.2%	8.0%	Reported margin is volatile; capacity scarcity supports upside, but retail cost-to-serve and policy pressure constrain the sustainable range.
Retail energy and natural gas	Not separately disclosed	Embedded	Embedded	Embedded	Retail margin can compress when wholesale costs rise before pricing resets; no separate product margin is disclosed.

Product / margin pool	Current margin evidence	Bear 2030 margin	Base 2030 margin	Bull 2030 margin	Justification
Owned generation and capacity	Not separately disclosed	Embedded	Embedded	Embedded	Higher capacity prices support generation margin, but plant performance and capacity accreditation are not disclosed by East asset.
Data-center / large-load contracts	No disclosed East revenue or margin	Embedded with minimal effect	Embedded with limited effect	Embedded with positive mix effect	Bull assumes contracts allocate incremental costs to incremental loads; base does not assume additional contracts beyond embedded management framework.

Operating-income math:

Case	2030E revenue	2030E operating margin	2030E operating income	Calculation
Bear	$14.991B	3.8%	$0.570B	$14.991B x 3.8%
Base	$16.137B	6.2%	$1.001B	$16.137B x 6.2%
Bull	$17.774B	8.0%	$1.422B	$17.774B x 8.0%

The base case implies operating income growth from $0.706 billion in FY2025 to $1.001 billion in 2030, a 7.2% CAGR in operating income. That is faster than revenue growth because margin recovers by 120 bps. The bear case implies operating income falls despite modest revenue growth. The bull case roughly doubles operating income over five years, but from a depressed FY2025 margin base and still below prior peak margin levels in absolute percentage terms.

10. Segment Rollup

Because East product dollars are not disclosed, the rollup is a one-line disclosed-segment model. That is not analytically elegant, but it is faithful to the evidence. The model does not create fake subsegment totals for retail, gas, generation, capacity, or data centers. It instead documents the drivers that would push the single East segment line toward bear, base, or bull.

Case	Modeled line	TTM revenue base	Revenue CAGR	TTM+5y revenue	TTM+5y op margin	TTM+5y op income
Bear	East reportable segment	$14.263B	1.0%	$14.991B	3.8%	$0.570B
Base	East reportable segment	$14.263B	2.5%	$16.137B	6.2%	$1.001B
Bull	East reportable segment	$14.263B	4.5%	$17.774B	8.0%	$1.422B

Arithmetic checks:

Check	Bear	Base	Bull
Revenue CAGR calculation	$14.263B x 1.01^5 = $14.991B	$14.263B x 1.025^5 = $16.137B	$14.263B x 1.045^5 = $17.774B
Operating income calculation	$14.991B x 3.8% = $0.570B	$16.137B x 6.2% = $1.001B	$17.774B x 8.0% = $1.422B
Product-to-segment reconciliation	One disclosed segment line equals segment total	One disclosed segment line equals segment total	One disclosed segment line equals segment total

The rollup reconciles within 1% by construction because there is no disclosed product split. The explicit caveat for the synthesis agent is that this East appendix does not allocate LS Power/CPower acquisition economics into East. If the synthesis model includes LS Power as an acquired post-TTM corporate bridge, it should do so centrally or through a separate acquisition adjustment, not by treating this East organic model as the full post-acquisition East run rate.

11. Key Risks And Wildcards

Bear risk - retail cost-to-serve squeeze: The most direct downside path is that wholesale power, gas, capacity, ancillary, and transmission costs rise faster than East customer contracts can reprice. The data package already notes Q2 and Q3 FY2025 pressure from increased supply costs to serve retail load. If this persists, revenue can rise while margin falls.

Bear risk - plant availability and retirement drag: East relies on generation and capacity economics, but planned maintenance and the Indian River retirement were negatives in FY2025 commentary. If availability disappoints during high-price periods, East may pay high market costs without capturing the offsetting generation upside.

Bear risk - capacity-market politics: PJM capacity prices have risen enough to trigger affordability pressure and FERC-approved temporary price collars. High capacity prices are economically favorable for capacity owners but politically fragile. Market redesign, consumer-protection measures, or changes to accreditation could reduce upside.

Bear risk - undisclosed product mix: Because NRG does not disclose East retail versus generation dollars, analysts cannot see whether FY2025 revenue growth came from high-quality customer growth, pass-through commodity inflation, wholesale activity, or lower-margin mix. This makes margin forecasting less reliable.

Base risk - LS Power allocation: The LS Power transaction closed after the TTM anchor and may reshape East exposure. Without post-close segment disclosure, the model may understate or misclassify future East capacity and generation economics. This is a data gap, not a reason to fabricate an allocation.

Bull wildcard - data centers and "Bring Your Own Power": If NRG signs additional PJM large-load contracts that allocate incremental generation/capacity cost to the customer, East could grow faster and with less retail affordability backlash. The data package says management's base outlook does not assume additional data-center contracts, so this belongs in bull rather than base.

Bull wildcard - demand response and C&I flexibility: PJM reforms broaden demand-response participation and improve accreditation beginning with 2027/2028. CPower's 6 GW platform could matter here after the LS Power/CPower close, but the segment allocation is not yet disclosed. If East receives meaningful C&I VPP economics, the margin profile could improve at lower physical capital intensity.

Bull wildcard - sustained capacity scarcity: PJM's 2027/2028 auction shortfall and load growth forecasts suggest dispatchable and accredited resources may remain scarce. If new supply and market reforms lag demand growth, East's existing or acquired capacity could earn stronger returns for longer than the base case assumes.

Summary Table

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$14.991B	3.8%	$0.570B	25%
Base	$16.137B	6.2%	$1.001B	50%
Bull	$17.774B	8.0%	$1.422B	25%

Data Gaps Inserted

- [DATA GAP: NRG does not disclose East retail revenue, East generation revenue, East capacity revenue, East natural-gas revenue, East data-center revenue, customer count, load served, MWh sold, capacity MW, or plant-level operating income in the verified data package.]
- [DATA GAP: Post-LS Power segment taxonomy is not yet reported in a full 10-Q as of 2026-04-30, so this appendix does not allocate acquired LS Power/CPower revenue or operating income into East.]
- [DATA GAP: Quarterly East GAAP operating income is not disclosed in the same clean form as annual segment operating income; FY2025 quarterly trend uses adjusted EBITDA from the data package.]

Source Notes

NRG historical segment data, management snippets, and taxonomy are from `C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\data_package.md`, especially Sections 1, 3, 4, 5, 6, and 10; management quote snippets in this appendix are tied to data_package Section 6. External competitive context uses PJM's 2025 Annual Report markets section at https://services.pjm.com/annualreport2025/markets/, EIA's March 2026 Today in Energy data-center demand analysis at https://www.eia.gov/todayinenergy/detail.php?id=67344, and PJM's 2025 Long-Term Load Forecast Report at https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf. These external sources are used only for market context, not for NRG historical segment dollars or management quotes.

Appendix B2 - Texas

Texas - Segment Deep Dive

Company: NRG Energy, Inc. Ticker: NRG Segment: Texas Stage 0 anchor: TTM equals Q1 2025 plus Q2 2025 plus Q3 2025 plus Q4 2025, ending 2025-12-31. The forward endpoint used throughout this appendix is 2030-12-31, exactly five calendar years after the TTM end date. Data discipline: NRG historical segment revenue, operating income, adjusted EBITDA, quarterly adjusted EBITDA, and management quotes are taken from `data_package.md`. No company historicals are re-fetched or re-derived here. External sources are used only for competitive and market context.

0. Segment boundary and taxonomy note

The Texas segment is stable across the five-year historical table used in the data package. NRG's broader reporting structure changed when Vivint Smart Home became a distinct reportable segment after the 2023 acquisition, and the West/Services/Other label evolved toward West/Other, but neither change restates the Texas row in a way that prevents FY2021-FY2025 comparison. The data package identifies Texas as retail power, retail gas where applicable, generation and market operations in Texas, with FY2025 revenue of $11.139 billion, FY2025 GAAP operating income of $1.113 billion, and FY2025 adjusted EBITDA of $1.877 billion [data_package Section 1, current reportable segments table, Texas row; Section 3, Texas table]. The most important taxonomy constraint is not a restatement; it is granularity. NRG does not disclose product-level revenue below the Texas reportable segment. Retail electricity, owned and contracted generation, market operations, Texas VPP, and data-center power agreements are real economic drivers, but the verified package does not provide standalone product dollars. This appendix therefore models the disclosed Texas segment as the only dollar forecast line, with VPP, large-load contracts, supply optimization, and generation availability treated as embedded drivers rather than fabricated product rows.

1. What this segment actually is

NRG's Texas segment is an integrated competitive-energy franchise built around serving load in Texas and managing the supply needed to serve that load. On the customer side, it includes retail power and related services for residential, small business, commercial, and industrial customers in deregulated Texas markets. On the supply side, it includes owned and contracted generation and market operations used to hedge, source, and optimize the retail book. The economic proposition is not simply "sell electricity." The segment makes money by acquiring and retaining customers, pricing fixed and variable plans, procuring wholesale supply, managing weather and load shape, dispatching or contracting generation, and using risk management to convert volatile ERCOT market conditions into a more stable retail margin stream.

The Texas customer proposition competes in a market where the physical utility still owns wires and handles delivery, while retail electric providers compete for the energy supply relationship. That distinction matters for NRG's segment economics. Delivery charges flow through from transmission and distribution utilities, but the competitive retail provider owns the commodity price, plan design, customer acquisition, retention, and service experience. Retailers can compete on headline price, contract length, green content, rewards, smart-home bundling, demand-response programs, and brand trust. The margin pool therefore depends on both customer-facing execution and wholesale-energy competence.

NRG's Texas differentiation is integration. A stand-alone retail electric provider can sell plans but must source wholesale power and hedges from the market. A pure generator can own plants but lacks direct customer load and customer data. NRG's Texas segment has both sides: a retail load book and generation/market operations. That does not eliminate exposure to weather, congestion, plant outages, ERCOT scarcity pricing, or customer churn, but it gives the company more ways to shape risk than a thinly capitalized retailer. The 2025 data package commentary repeatedly ties Texas performance to weather, plant performance, supply optimization, improved retail margin, and supply-cost optimization [data_package Section 6, Texas segment drivers from IR releases].

The segment also carries two growth options that are not cleanly disclosed as revenue lines. First, Texas Residential VPP aggregates demand response and customer devices. The data package says NRG exceeded the raised FY2025 target after increasing the target from 20 MW to 150 MW, and cites longer targets of 650 MW by 2030 and 1 GW by 2035 [data_package Section 4, growth/KPI disclosures without product dollars, Texas VPP row]. Second, data-center and large-load power agreements create a pathway for NRG to monetize site control, dispatchable power, and risk-management capability in a market where load growth is stressing the grid. The data package identifies 295 MW of long-term retail power agreements announced in Q2 2025, 445 MW total by Q3/Q4 2025, and a target of at least 1 GW plus signed long-term contracts in 2026

[data_package Section 4, growth/KPI disclosures without product dollars, Data centers row]. These are material strategic drivers, but not standalone historical product revenue lines.

2. Current economics

FY2025 is the TTM anchor for this appendix because the latest reported quarter is Q4/FY2025 and the company's fiscal year ends December 31. Texas revenue was $11.139 billion, up 4.6% year over year from $10.651 billion in FY2024 [data_package Section 3, Texas table, Revenue and YoY rows]. GAAP operating income was $1.113 billion, implying a 10.0% operating margin [data_package Section 3, Texas table, Operating income and Operating margin rows]. Adjusted EBITDA was $1.877 billion, making Texas the largest FY2025 adjusted EBITDA contributor even though East was larger by revenue [data_package Section 1, current reportable segments table, Texas and East rows; Section 3, Texas commentary].

The GAAP margin history shows why the segment cannot be modeled as a simple annuity. Texas operating margin was 12.5% in FY2021, 12.5% in FY2022, 29.6% in FY2023, 5.0% in FY2024, and 10.0% in FY2025 [data_package Section 3, Texas table, Operating margin row]. The FY2023 margin is an outlier, and FY2024 was weak. A normalized view should therefore give less weight to the single best year and more weight to the integrated retail-supply margin band that surrounds it. The FY2025 10.0% GAAP operating margin and 16.9% adjusted EBITDA margin are the best current anchor points, but neither should be treated as guaranteed. They are outputs of weather, supply costs, hedging, customer mix, and plant availability.

The quarterly trend reinforces the seasonal and operating leverage in the segment. In FY2025, Texas quarterly revenue was $2.437 billion in Q1, $2.847 billion in Q2, $3.379 billion in Q3, and $2.476 billion in Q4 [data_package Section 5, most recent quarterly trend, Texas rows]. Quarterly adjusted EBITDA was $0.299 billion, $0.512 billion, $0.807 billion, and $0.259 billion, respectively [data_package Section 5, most recent quarterly trend, Texas rows]. The Q3 adjusted EBITDA margin was 23.9%, while Q4 was 10.5%. This pattern is consistent with a Texas power business that has meaningful summer load and heat exposure, but it also shows that a calendar-year model needs to normalize across seasons rather than annualizing a single quarter.

Capital intensity is not broken out for Texas in the data package. Consolidated capex was $1.147 billion in FY2025, or 3.7% of consolidated revenue [data_package Section 7, capital allocation history table, FY2025 Capex and Capex/revenue rows]. Texas has upcoming generation-related growth through Texas Energy Fund projects at T.H. Wharton, Cedar Bayou, and Greens Bayou, with expected commercial operation staggered from June 2026 to mid-2028 [data_package Section 6, Texas segment drivers from IR releases]. However, without segment capex disclosure, this appendix does not assign a Texas-specific capex-to-sales number. The relevant economic judgment is that the Texas segment is not software-like: it requires hedging collateral, plant maintenance, reliability investment, customer acquisition expense, and working capital management. At the same time, the integrated model can earn attractive margins when retail pricing, load shape, and owned or contracted supply are aligned.

3. Unit economics

Texas segment revenue becomes profit through four linked mechanisms: customer margin, supply cost management, generation availability, and risk management. The customer margin begins with the spread between the retail plan price and the expected cost to serve the customer's load. For residential customers, plan design and churn discipline matter. For commercial and industrial customers, load shape, credit, contract length, and pass-through terms matter. Because the delivery utility charges are not the retailer's economic spread, a high nominal bill does not necessarily mean a high NRG margin. The segment's economic quality depends on the portion of the bill that reflects energy, ancillary services, risk premium, and customer-service value.

Supply cost management is the second leg. ERCOT prices can move quickly with weather, outages, congestion, reserve margins, and renewables output. A retailer that underprices fixed-rate plans before a hot summer can lose money even if customer counts rise. Conversely, a retailer with strong forecasting, hedging, and procurement can protect margin while offering competitive plans. NRG's data package commentary links 2025 Texas strength to improved retail margin and supply-cost optimization [data_package Section 6, Texas segment drivers from IR releases]. Those phrases are not generic. They imply the company earned more by better matching customer obligations with supply and by avoiding cost leakage in volatile market conditions.

Owned and contracted generation creates a natural hedge, but not a perfect one. Generation availability can support customer load and capture scarcity value, but plant outages, fuel costs, and congestion can hurt. The margin benefit is largest when dispatchable assets are available during high-value hours and when retail obligations are structured so that NRG

captures some of the value without carrying uncontrolled open exposure. The risk is that the integrated model can concentrate stress: if retail load spikes while supply costs are high and generation is unavailable, both sides move against the company. That is why the segment's margin history has a 29.6% FY2023 outlier and a 5.0% FY2024 trough [data_package Section 3, Texas table].

VPP economics add a demand-side tool. A residential VPP does not have to look large in revenue to be valuable. Its value can show up as lower cost to serve, avoided procurement during peak hours, ancillary service participation, customer engagement, and lower churn. The data package does not provide a VPP revenue line, so this appendix treats VPP as a margin and risk-management driver rather than a separate product. The long-term targets of 650 MW by 2030 and 1 GW by 2035 are large enough to matter operationally, but not enough to justify a separate dollar model without disclosure [data_package Section 4, Texas VPP row].

Data-center and large-load contracts are different. They can become material revenue because the load is large and often long term. Management's disclosed 295 MW and 445 MW milestones suggest a real pipeline, and the "above $80 per megawatt hour" pricing target for new agreements creates a revenue yardstick [data_package Section 6, Texas management commentary, Q3 FY2025 row]. But the data package also says product revenue dollars are not disclosed and management's long-term framework does not assume additional data-center contracts beyond embedded contracts [data_package Section 6, Corporate, Capital Allocation and Long-Term Outlook table, Q4 FY2025 row]. Therefore, the base case allows Texas revenue growth to run roughly in line with the trailing three-year segment CAGR because of load growth and embedded agreements, but it does not build a separate data-center revenue layer. The bull case is where additional contracted large-load wins move the segment's growth and margin mix.

Margin can break upward if NRG sustains retail margin improvement, VPP reduces peak procurement costs, contracted data-center load is priced with adequate risk premiums, and TEF-related dispatchable capacity enters service on time. Margin can break downward if customer acquisition becomes more price-driven, competitors sacrifice margin for share, ERCOT scarcity or ancillary costs rise faster than plan pricing, regulatory pressure forces large-load costs onto suppliers, or plants underperform during high-value periods. The segment's adjusted EBITDA of $1.877 billion versus GAAP operating income of $1.113 billion also matters: depreciation, amortization, and other below-EBITDA items are meaningful enough that a valuation model should not substitute EBITDA margin for operating margin.

4. Competitive dynamics

Texas is competitive at both the retail and wholesale layers. Retail electric providers compete for customers in deregulated areas, while generation owners and market participants compete in ERCOT's energy, ancillary service, and capacity-adjacent reliability mechanisms. The Public Utility Commission of Texas describes a Retail Electric Provider as selling electric energy to retail customers where the sale of electricity is open to retail competition, which is the core customer-facing market in which NRG's Texas segment operates [PUCT REP certification and reporting page, https://www.puc.texas.gov/industry/electric/business/rep/Default.aspx]. This structure produces customer choice, but it also makes churn and plan-price transparency permanent competitive facts.

Vistra is the most visible integrated retail competitor. Vistra lists TXU Energy, Ambit Energy, Dynegy, Homefield Energy, Energy Harbor, and U.S. Gas & Electric among its retail brands, says it serves nearly 5 million residential, commercial, and industrial retail customers with electricity and natural gas, and describes TXU Energy as Texas' No. 1 choice in competitive electricity providers [Vistra Retail, https://vistracorp.com/retail/]. That matters for NRG because Vistra combines scale retail brands with generation and risk-management capability. It can compete on brand, customer analytics, procurement, and integrated hedging, not merely on headline price.

Calpine and Constellation are also relevant. Calpine identifies Champion Energy Services, Calpine Energy Solutions, Good Charlie Energy, and Calpine Community Energy among retail services, and says Champion Energy serves customers in Texas as well as other competitive power markets [Calpine retail companies, https://www.calpine.com/who-we-are/our-companies/]. Constellation markets itself as a certified Texas retail electric provider and also has a large commercial energy platform. These competitors are not all identical. Some are stronger in residential mass market, some in commercial and industrial supply, and some in wholesale generation. The common thread is that large, sophisticated competitors can arbitrage commodity procurement and customer acquisition. That limits NRG's ability to expand margin by simply raising retail prices.

The wholesale backdrop is also competitive but structurally tight at high-load hours. The 2024 ERCOT State of the Market report by Potomac Economics says ERCOT coordinates electricity output from more than 1,250 generating resources to serve more than 26 million Texas customers, or about 90% of the state's electric demand, across more than 54,100 miles of

transmission lines. The same report says the ERCOT energy markets performed competitively in 2024 and that the Independent Market Monitor found little evidence that suppliers exercised market power, but it also says significant market power exists at both system and zonal levels and that future load growth can increase structural market power risk [Potomac Economics 2024 State of the Market Report, https://www.potomaceconomics.com/wp-content/uploads/2025/06/2024-State-of-the-Market-Report.pdf].

This competitive context cuts both ways. On the bear side, a market that generally performs competitively should not be modeled as giving NRG an enduring ability to widen spreads without customer or regulatory pushback. Retail customers can switch, competitors can undercut plans, and regulators can scrutinize affordability. On the bull side, the same market creates value for firms that can solve reliability, hedging, and load-serving complexity. ERCOT's 2025 Capacity, Demand and Reserves release described planning reserve pressure from Texas economic growth and large consumers such as data centers, industrial oil and gas facilities, and cryptocurrency mining [ERCOT CDR release, https://www.ercot.com/news/release/02132025-ercot-releases-capacity]. When large loads need reliable power quickly, the winners are not necessarily the cheapest retail brands; they are counterparties with credible supply, site knowledge, risk management, and execution.

Entry barriers are moderate in retail and higher in integrated retail-plus-generation. A new retailer can enter with licensing, collateral, systems, customer acquisition spend, and wholesale supply arrangements. That is enough to create churn pressure. But becoming a scaled integrated operator with recognized brands, hedging systems, customer analytics, call-center capability, and dispatchable supply is much harder. The Texas segment's moat is therefore not a classic monopoly; it is an execution and integration moat. It protects margins when NRG is operationally sharp and market conditions reward integration. It weakens when customer acquisition becomes commoditized or when wholesale volatility overwhelms hedging.

Substitution risk is real but manageable. Customers can switch retail providers. Behind-the-meter solar, batteries, smart thermostats, and corporate PPAs can reduce or reshape load. Large data centers can seek behind-the-meter generation, private-wire solutions, or other markets if ERCOT interconnection becomes too slow or costly. However, many substitutions still require a sophisticated retail, balancing, or market interface. That gives NRG an opportunity to turn substitution into a product: VPP, demand response, fixed-price renewable plans, and large-load "bring your own power" structures. The risk is that the margin migrates to equipment vendors, developers, or hyperscalers if NRG does not retain the customer relationship.

5. Moat at the segment level

The Texas segment has a defensible but conditional moat. The moat is not the legal right to serve a territory. It is the combination of scale retail relationships, supply and hedging infrastructure, generation/market operations, brand presence, and the ability to serve complex load in ERCOT. Those assets can create a durable advantage because the market punishes weak risk management quickly. A small retailer can offer a low price; it is harder to survive multiple summers, collateral calls, customer churn cycles, and wholesale shocks while still investing in technology and service. NRG's FY2025 adjusted EBITDA contribution suggests the Texas franchise can translate that capability into real earnings [data_package Section 1, current reportable segments table, Texas row].

The moat is most visible in three areas. First, retail scale gives NRG customer data, brand reach, and procurement visibility. Second, integrated supply lets it manage the cost to serve with more tools than a pure reseller. Third, new growth themes such as VPP and data-center power agreements favor firms that can combine customer devices, wholesale-market knowledge, and dispatchable power. Management's "Bring Your Own Power" framing is strategically important because it attempts to align large-load growth with affordability and regulatory acceptability [data_package Section 6, Texas management commentary, Q4 FY2025 row]. If NRG can sell reliability to large-load customers without forcing costs onto ordinary retail customers, it can build a more durable earnings stream.

The moat is conditional because none of these advantages remove commodity exposure. ERCOT remains a volatile market. Retail customer loyalty is not absolute. Regulatory rules can change. Competitors such as Vistra, Calpine/Constellation, and other retail providers have meaningful capabilities. The State of the Market report's conclusion that the market generally performed competitively in 2024 is a warning against assuming monopoly economics [Potomac Economics 2024 State of the Market Report]. NRG's Texas segment can earn above-average returns when it manages complexity better than peers, but it does not have an unassailable pricing umbrella.

Durability over five years is credible. Texas population and industrial load growth, data-center demand, and reliability concerns support the value of integrated power capability. The VPP target of 650 MW by 2030 directly matches the appendix horizon and could become a practical margin stabilizer [data_package Section 4, Texas VPP row]. TEF projects coming online from 2026 to 2028 can add dispatchable capacity during the projection period [data_package Section 6, Texas

segment drivers]. But the moat over ten years is less certain. Distributed energy, storage, customer switching tools, and policy intervention can pressure the retail spread. The right conclusion is neither "commodity no moat" nor "regulated utility moat." Texas is a good segment with an execution moat that needs to be re-earned every season.

6. Historical growth rates - reproduced from data package

NRG does not disclose product-level revenue below Texas. The table below therefore uses the only dollar-disclosed Texas line from the data package: total Texas segment revenue. Embedded drivers are shown separately as non-dollar-disclosed items to prevent false precision.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	3-yr CAGR	Most recent YoY	Data package cite
Texas segment total: retail electricity, owned/contracted generation, and market operations	$10.474B	$10.651B	$11.139B	3.5% from FY2022-FY2025	4.6%	[data_package Section 3, Texas table, Revenue and YoY rows]
Retail electricity and related services	Not separately disclosed	Not separately disclosed	Not separately disclosed	n/a	n/a	[data_package Section 4, Product and subsegment dollar disclosure, Texas retail row]
Owned and contracted generation / market operations	Not separately disclosed	Not separately disclosed	Not separately disclosed	n/a	n/a	[data_package Section 4, Product and subsegment dollar disclosure, Texas generation row]
Texas Residential VPP	No revenue dollars disclosed	No revenue dollars disclosed	No revenue dollars disclosed	n/a	n/a	[data_package Section 4, Texas Residential VPP row]
Data-center retail power agreements	No revenue recognized as product line	No revenue recognized as product line	No revenue recognized as product line	n/a	n/a	[data_package Section 4, data-center retail power agreements row]

Arithmetic check for disclosed Texas segment total: FY2022 revenue of $10.057 billion times 1.041 equals $10.469 billion, approximately FY2023 reported revenue of $10.474 billion. FY2023 revenue of $10.474 billion times 1.017 equals $10.652 billion, approximately FY2024 reported revenue of $10.651 billion. FY2024 revenue of $10.651 billion times 1.046 equals $11.141 billion, approximately FY2025 reported revenue of $11.139 billion. All checks are within 2%.

The FY2022-FY2025 CAGR is calculated from the data-package table as ($11.139 billion / $10.057 billion)^(1/3) - 1 = 3.5%. The longer FY2021-FY2025 CAGR is only 2.0%, because FY2021 revenue was already $10.295 billion [data_package Section 3, Texas table, Revenue row]. This matters for the forward model. Texas is not a high-teens revenue grower at the segment level. The segment's investment case is a combination of modest load and customer growth, supply optimization, VPP and large-load optionality, and margin discipline.

7. Management guidance - quoted from data package Section 6

The data package provides four Texas-specific management quote snippets and several Texas driver notes. Each quote below is reproduced from the package rather than re-fetched.

Date / period	Speaker / source	Verbatim quote snippet	Topic	Interpretation
2025-05-12 / Q1 FY2025	Larry Coben, FMP transcript as reproduced in data package	"Our view on data centers hasn't changed."	Data centers and new build optionality	Management was already framing large-load demand as a strategic opportunity, but the package says data-center upside was not included in the then-current base growth framework [data_package Section 6, Texas table, Q1 FY2025 row].
2025-08-06 / Q2 FY2025	Larry Coben, FMP transcript as reproduced in data package	"this is just the beginning."	Initial 295 MW data-center agreements	The first disclosed data-center agreements should not be treated as a one-off. They support a bull-case path, but not a standalone historical revenue line [data_package Section 6, Texas table, Q2 FY2025 row].

Date / period	Speaker / source	Verbatim quote snippet	Topic	Interpretation
2025-11-06 / Q3 FY2025	Larry Coben, FMP transcript as reproduced in data package	"above $80 per megawatt hour."	New data-center pricing target	Pricing above this level can be economically meaningful if contracted with adequate risk protection. The data package says to use it as qualitative support, not as disclosed revenue [data_package Section 6, Texas table, Q3 FY2025 row].
2026-02-24 / Q4 FY2025	Larry Coben / Bruce Chung, FMP transcript as reproduced in data package	"Bring Your Own Power"	Affordability and large-load strategy	Management is trying to make large-load growth politically and economically acceptable by keeping data-center capacity costs with new large-load customers rather than existing retail customers [data_package Section 6, Texas table, Q4 FY2025 row].

Additional package guidance: Texas FY2025 performance benefited from weather, plant performance, improved retail margin, supply-cost optimization, and margin/supply-cost optimization across Q1-Q3, while Q4 was softer year over year [data_package Section 6, Texas segment drivers from IR releases]. TEF projects add 1.5 GW across T.H. Wharton, Cedar Bayou, and Greens Bayou with commercial operation expected from June 2026 to mid-2028 [data_package Section 6, Texas segment drivers]. The VPP target was raised from 20 MW to 150 MW for 2025, exceeded by FY2025, with 650 MW by 2030 and 1 GW by 2035 cited in releases [data_package Section 4, Texas VPP row]. Management also said the long-term framework "does not assume any additional data center contracts" beyond embedded contracts, and the corporate target is adjusted EPS growth rather than GAAP segment operating income [data_package Section 6, Corporate, Capital Allocation and Long-Term Outlook table, Q4 FY2025 row].

8. Forward growth assumptions - explicit and justified

Because Texas product revenue is not separately disclosed, the forecast unit is the Texas segment total. The base, bull, and bear cases use exactly five years from the 2025-12-31 TTM anchor to the 2030-12-31 horizon. The model does not add a separate data-center or VPP revenue line. Instead, those items affect the segment CAGR and margin assumptions.

Base case revenue growth

Product / forecast line	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to 2030-12-31	Justification
Texas segment total	3.5%	4.6%	No Texas revenue guide; TEF projects 2026-2028; VPP target 650 MW by 2030; long-term framework excludes additional data-center contracts beyond embedded contracts	3.5%	Base growth matches the FY2022-FY2025 CAGR. This gives credit for Texas load growth, embedded large-load contracts, VPP and retail execution, but does not assume a new data-center contract wave beyond disclosed momentum.
Retail electricity and related services	n/a	n/a	Not separately guided	Embedded in segment CAGR	Retail plan growth, churn, and pricing are the core revenue engine, but product dollars are not disclosed. Base assumes no major share gain, only market growth and plan discipline.
Owned/contracted generation and market operations	n/a	n/a	TEF 1.5 GW projects expected 2026-2028	Embedded in segment CAGR	TEF and generation availability support the cost-to-serve and reliability proposition. Revenue is not modeled separately because NRG reports the integrated Texas segment, not generation product sales.
VPP and data-center agreements	n/a	n/a	650 MW VPP by 2030; 445 MW data-center book by Q3/Q4 2025; at least 1 GW target plus signed contracts in 2026	Embedded in segment CAGR	These drivers justify sustaining historical growth rather than fading to zero, but the data package lacks product revenue dollars. Base assumes value shows partly in margin and customer economics.

Base revenue math: FY2025 Texas revenue of $11.139 billion compounded at 3.5% for five years equals $13.230 billion in 2030. The year-by-year path is $11.529 billion in 2026, $11.932 billion in 2027, $12.350 billion in 2028, $12.782 billion in 2029, and $13.230 billion in 2030. This is a steady-growth case, not a spike. It is consistent with the historical segment CAGR and with management's caution that the long-term framework does not assume additional data-center contracts beyond embedded agreements.

Bull case revenue growth

Product / forecast line	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to 2030-12-31	Justification
Texas segment total	3.5%	4.6%	No segment revenue guide; data-center management language suggests upside	5.5%	Bull assumes Texas large-load contracting continues beyond the embedded book, TEF projects arrive on time, and VPP improves the retail-supply proposition. CAGR is above history but still below a hypergrowth profile because retail electricity remains a mature competitive market.
Retail electricity and related services	n/a	n/a	Not separately guided	Embedded in segment CAGR	Bull retail growth comes from better retention, plan mix, and large customer wins rather than mass-market price cutting.
Owned/contracted generation and market operations	n/a	n/a	TEF capacity expected over 2026-2028	Embedded in segment CAGR	New dispatchable capacity and site value support more reliable long-term contracting. The bull case assumes execution without major delay or cost leakage.
VPP and data-center agreements	n/a	n/a	"this is just the beginning"; "above $80 per megawatt hour"; VPP 650 MW by 2030	Embedded in segment CAGR	Bull treats management's data-center language as a real pipeline and assumes VPP scale reduces peak exposure enough to support both growth and margin.

Bull revenue math: FY2025 Texas revenue of $11.139 billion compounded at 5.5% for five years equals $14.558 billion in 2030. The year-by-year path is $11.752 billion in 2026, $12.398 billion in 2027, $13.080 billion in 2028, $13.800 billion in 2029, and $14.558 billion in 2030. This requires more than ordinary customer growth. It needs incremental large-load wins, successful TEF execution, and a market that rewards reliable power rather than pushing all gains into procurement cost.

Bear case revenue growth

Product / forecast line	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to 2030-12-31	Justification
Texas segment total	3.5%	4.6%	No segment revenue guide	0.5%	Bear assumes retail competition, affordability pressure, data-center interconnection friction, and weaker commodity pricing offset Texas load growth. Revenue still grows slightly because customer demand and inflation do not disappear, but NRG fails to translate the market backdrop into share or pricing gains.
Retail electricity and related services	n/a	n/a	Not separately guided	Embedded in segment CAGR	Bear retail conditions include higher churn, price-sensitive switching, and thinner acquisition economics.
Owned/contracted generation and market operations	n/a	n/a	TEF projects expected 2026-2028	Embedded in segment CAGR	Bear assumes delays, cost overruns, or weaker dispatch economics reduce the benefit from capacity additions.

Product / forecast line	3-yr historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to 2030-12-31	Justification
VPP and data-center agreements	n/a	n/a	VPP and data-center KPIs disclosed, no revenue dollars	Embedded in segment CAGR	Bear assumes VPP and large-load initiatives are real operationally but do not become material revenue contributors by 2030, either because of interconnection, regulatory, or customer economics.

Bear revenue math: FY2025 Texas revenue of $11.139 billion compounded at 0.5% for five years equals $11.420 billion in 2030. The year-by-year path is $11.195 billion in 2026, $11.251 billion in 2027, $11.307 billion in 2028, $11.363 billion in 2029, and $11.420 billion in 2030. This case is not a collapse; it is a stagnation case where NRG remains relevant but cannot monetize the Texas load-growth story.

9. Forward operating margin assumptions - explicit and justified

The current operating margin anchor is 10.0% GAAP operating margin in FY2025, calculated from $1.113 billion of operating income on $11.139 billion of revenue [data_package Section 3, Texas table]. FY2025 adjusted EBITDA margin was 16.9%, calculated from $1.877 billion of adjusted EBITDA on $11.139 billion of revenue [data_package Section 1, current reportable segments table, Texas row]. The forecast margin below is GAAP operating margin, not adjusted EBITDA margin.

Case	FY2025 operating margin anchor	2030 operating margin	Change	Mechanism
Bear	10.0%	7.5%	-250 bps	Retail price competition, higher cost to serve, weaker plant availability, data-center delays, and regulatory pressure reduce the conversion of revenue into operating income. This remains above FY2024's 5.0% trough but below the FY2021-FY2022 12.5% level.
Base	10.0%	11.5%	+150 bps	Supply-cost optimization, VPP scale, improved retail margin, and TEF capacity allow modest margin expansion. The base case does not assume a return to the 29.6% FY2023 outlier.
Bull	10.0%	13.5%	+350 bps	Incremental long-term large-load contracts, higher-value dispatchable capacity, better VPP peak management, and stronger customer retention lift margins above the historical 12.5% FY2021-FY2022 level, but still far below FY2023's abnormal 29.6%.

The base margin uplift is deliberately limited. A 150 bps improvement from 10.0% to 11.5% requires better cost-to-serve outcomes and mix, but it does not require permanent scarcity pricing or monopoly behavior. It sits below FY2021 and FY2022 margins, which were both 12.5%, and far below FY2023. The mechanism is practical: VPP and demand response reduce peak procurement needs, TEF capacity improves reliability value, and embedded large-load contracts carry enough risk premium to contribute to operating income. If those mechanisms fail, the base margin is too high.

The bull case is plausible only if data-center and large-load contracts are structured correctly. Revenue growth alone is not enough. A large load priced without adequate fuel, congestion, curtailment, collateral, and reliability protections can dilute margin or create tail risk. The "above $80 per megawatt hour" management comment supports the idea that NRG is seeking premium pricing, but the appendix does not assume that every large-load megawatt converts at that level or that all contracted revenue has high margin [data_package Section 6, Texas table, Q3 FY2025 row]. The bull margin therefore reaches 13.5%, a strong but not unprecedented level.

The bear margin is anchored by history. FY2024 Texas operating margin was 5.0%, showing that the downside is not theoretical [data_package Section 3, Texas table]. The bear case does not fully repeat FY2024 because FY2025 showed recovery and management has additional tools, but it recognizes that competitive retail markets and ERCOT volatility can

compress spreads quickly. The bear case also assumes that affordability and large-load politics limit NRG's ability to pass all costs through to customers. In that environment, revenue can be stable while operating income falls materially.

[DATA GAP: NRG does not disclose Texas product-level operating margins for retail electricity, generation/market operations, VPP, or data-center power agreements. This appendix uses a segment-level operating margin model because product-level margin allocation would be fabricated.]

10. Segment rollup - bottoms-up from disclosed forecast line

The rollup uses the one disclosed dollar line: Texas segment total. Because no product-level revenue dollars are disclosed, the bottoms-up model is a one-line disclosed segment model with embedded operating drivers. This is the only reconstructable method that stays within the data package.

Case	FY2025 Texas revenue	Revenue CAGR, 2025-2030	2030 Texas revenue	2030 operating margin	2030 operating income	Probability
Bear	$11.139B	0.5%	$11.420B	7.5%	$0.856B	25%
Base	$11.139B	3.5%	$13.230B	11.5%	$1.521B	55%
Bull	$11.139B	5.5%	$14.558B	13.5%	$1.965B	20%

Arithmetic tie-out: Bear operating income equals $11.420 billion times 7.5%, or $0.856 billion. Base operating income equals $13.230 billion times 11.5%, or $1.521 billion. Bull operating income equals $14.558 billion times 13.5%, or $1.965 billion. All cases reconcile directly to the disclosed forecast line within rounding.

The probability-weighted 2030 operating income is $1.444 billion: 25% times $0.856 billion plus 55% times $1.521 billion plus 20% times $1.965 billion. Compared with FY2025 operating income of $1.113 billion, the probability-weighted case implies 5.3% annual operating-income growth over five years. That growth is faster than revenue because the base and bull cases include margin recovery and execution benefits, but it is not an aggressive extrapolation of the FY2023 windfall margin.

This Texas model is important for consolidated NRG because the segment supplied the largest FY2025 adjusted EBITDA contribution. The base case adds roughly $0.408 billion of GAAP operating income by 2030. That can support EPS growth, but it does not by itself prove a Gideon-style compounder. The segment's economic quality is good, but volatile. The combined company will still need East, Vivint, West/Other, LS Power integration, corporate cost, interest expense, tax, and share count assumptions to determine whether FY+5 EPS clears the valuation hurdle.

11. Key risks and wildcards

Bear risk - retail competition. Texas customers can switch providers, and large competitors have strong brands and procurement capabilities. If TXU/Vistra, Calpine/Champion, Constellation, and smaller REPs compete aggressively on price, NRG may defend customer count at lower margin. This is the simplest path to the bear case because it does not require a macro shock.

Bear risk - ERCOT cost-to-serve volatility. Weather, congestion, ancillary costs, forced outages, and scarcity pricing can move against NRG's retail book. The integrated model mitigates but does not eliminate this exposure. FY2024's 5.0% operating margin shows the downside can be material even without a permanent decline in segment relevance [data_package Section 3, Texas table].

Bear/base risk - regulatory allocation of large-load costs. Management's "Bring Your Own Power" concept recognizes the political issue: ordinary customers should not bear the cost of data-center growth. If regulators impose stricter requirements, delay interconnections, or shift costs in a way that reduces contract economics, the data-center upside fades. If NRG structures contracts cleanly, this risk can become a base-case advantage.

Base/bull wildcard - VPP execution. The 650 MW by 2030 target is large enough to affect peak exposure and customer stickiness, but the data package gives no revenue dollars or margin contribution. VPP success should be modeled as a margin stabilizer and risk-management tool before it is modeled as a product revenue engine.

Bull wildcard - data-center contracting. The disclosed 295 MW and 445 MW milestones, plus management's "this is just the beginning" comment, create a real option. The bull case needs NRG to sign additional long-term contracts at adequate prices and with risk terms that protect shareholders. If the contracts merely add low-margin volume, the bull revenue case could arrive without bull operating income.

Base/bull wildcard - TEF and dispatchable capacity. TEF projects across T.H. Wharton, Cedar Bayou, and Greens Bayou are expected to enter service from 2026 to mid-2028 [data_package Section 6, Texas segment drivers]. Timely delivery supports reliability, large-load contracting, and peak economics. Delays or cost overruns pressure both margin and credibility.

Bear risk - commodity and collateral stress. NRG's consolidated balance sheet had elevated debt and transaction-related cash at FY2025 year-end because of LS Power funding [data_package Section 8, balance sheet snapshot]. Texas segment shocks can interact with liquidity and collateral requirements. Even if the segment remains profitable over a full year, interim market stress can affect capital allocation.

Base risk - no product disclosure. The absence of product-level Texas revenue and margin disclosure limits forecast precision. Investors cannot separately track retail customer margin, generation contribution, VPP economics, and data-center revenue. This is a data gap, not a reason to invent lines. It should reduce confidence in any single-point forecast.

Final summary:

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$11.420B	7.5%	$0.856B	25%
Base	$13.230B	11.5%	$1.521B	55%
Bull	$14.558B	13.5%	$1.965B	20%

Key conclusion: Texas is NRG's highest-quality energy segment, but not a clean monopoly or a low-volatility compounder. The base case gives NRG credit for a durable integrated retail-supply franchise, moderate Texas load growth, VPP progress, and embedded large-load opportunities. The bull case requires incremental data-center contracting and margin-accretive capacity execution. The bear case is a stagnation and margin-compression outcome driven by competition, ERCOT volatility, and regulatory friction. The most defensible 2030 estimate is the base case: $13.230 billion of revenue, 11.5% GAAP operating margin, and $1.521 billion of operating income.

Data gaps inserted

[DATA GAP: NRG does not disclose product-level revenue for Texas retail electricity, owned/contracted generation, market operations, Texas Residential VPP, or data-center retail power agreements. The forecast therefore uses the Texas reportable segment as the only disclosed dollar line.]

[DATA GAP: NRG does not disclose Texas product-level operating margins for retail electricity, generation/market operations, VPP, or data-center power agreements. This appendix uses a segment-level operating margin model because product-level margin allocation would be fabricated.]

Appendix B3 - West/Other

West/Other - Segment Deep Dive

Stage 0 anchor used in this appendix: Today is 2026-04-30. NRG's fiscal year ends December 31. The latest reported quarter is Q4/FY2025, period ended 2025-12-31. TTM is Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025, ending 2025-12-31. The forward horizon is exactly five calendar years from that TTM end date, or 2030-12-31.

0. Segment Boundary And Taxonomy Note

West/Other is the least cleanly bounded of NRG's four operating segments. The verified data package defines it as West and Canada customer, plant and market operations plus other investments, with older releases using "West/Services/Other" and newer materials using "West/Other" [data_package section 1, current reportable segments; QF P-Taxonomy]. This appendix uses the official FY2025 10-K/QF segment table for historical revenue and GAAP operating income. It does not re-fetch NRG historicals. The important caveat is that NRG's headline quarterly adjusted EBITDA tables often put Corporate activities into the West/Other line, while the FY2025 release appendix separates West/Other from Corp/Elim for at least Q4 and FY2025 [data_package section 1; section 5; self-verification log]. Therefore, this appendix treats FY2025 revenue of $3.202 billion and GAAP operating income of $149 million as the controlling annual segment P&L from QF P2/data package section 3, and it treats FY2025 adjusted EBITDA of $137 million as a headline West/Other-including-Corporate figure. The $26 million figure referenced in the data package verification log is Q4 2025 pure West/Other adjusted EBITDA after separating Corp/Elim, not annual GAAP operating income. [DATA GAP: NRG does not provide a fully comparable five-year annual adjusted EBITDA bridge that cleanly separates West/Other from Corporate in every period.]

The taxonomy is usable but not pristine. Vivint's 2023 acquisition did not move into West/Other, but it changed the company's overall segment mix and makes pre/post-2023 portfolio comparisons less meaningful at the consolidated level. Within West/Other, the segment itself has also been affected by portfolio changes: Airtron was sold in September 2024 and the Cottonwood lease expired in May 2025, both cited by management as FY2025 EBITDA headwinds [data_package section 4, West/Other product/subsegment rows; section 6, West/Other commentary]. Because those are not continuing product lines with disclosed revenue, the forward model does not mechanically grow or shrink them as if they were ongoing products. The continuing modeled line is "West and Canada operations plus other investments." Airtron/Cottonwood are treated as comparability items that explain the FY2025 base rather than as forecastable product families.

1. What This Segment Actually Is

West/Other is a regional energy and investment bucket, not a consumer brand or a single product. It mainly captures NRG's customer, plant and market operations in the western United States and Canada, plus other investments that do not fit Texas, East, Vivint Smart Home, or Corporate [data_package section 1; QF P-Taxonomy]. In economic terms, the continuing business is a smaller version of NRG's broader integrated retail-power model. It serves energy customers, manages supply procurement, optimizes generation or contracted resources where available, and participates in wholesale and retail power and gas markets. The segment is only 10.4% of FY2025 consolidated revenue, compared with 36.3% for Texas and 46.4% for East [data_package section 1, current reportable segments]. It is also much less profitable than the core franchises: FY2025 GAAP operating income was $149 million on $3.202 billion of revenue, a 4.7% segment operating margin [data_package section 3, West/Other table].

The segment's customer and product boundaries are not disclosed in the kind of detail that would allow a true product-level forecast. The data package explicitly says NRG does not disclose dollar revenue below the four reportable segments; the FMP endpoint that sounds like "product segmentation" is actually reportable segment revenue for this issuer, not a product or SKU table [data_package section 4]. For West/Other, the only dollar-disclosed line is total segment revenue. The product/subsegment descriptions in the data package are: West and Canada operations, and Airtron/Cottonwood legacy items. The first line is ongoing; the second is a set of exit/expiration effects, not a recurring customer product with standalone revenue [data_package section 4, West/Other rows].

The pricing model is therefore best described at a functional level. Retail energy customers buy electricity, gas or related services under contracts whose margin is driven by acquisition cost, churn/retention, load shape, weather, hedging, supply procurement, and the spread between retail pricing and wholesale cost to serve. Wholesale and market operations add optionality around congestion, capacity, ancillary services, and generation or contracted supply optimization, but West/Other does not have the Texas scale, data-center narrative, or post-LS Power capacity concentration that dominates the

consolidated bull case. The competitive environment is regional and market-specific: western U.S. retail choice, community-choice aggregation, utility default service, wholesale trading, Canadian provincial markets, and local commercial energy procurement all matter, but NRG does not disclose enough to assign precise revenue by state or province. [DATA GAP: no audited West/Other split by state, province, residential/commercial customer class, retail power, gas, generation, trading, services, or investment income.]

The go-to-market is likely multi-channel rather than a single brand funnel. NRG's broader business includes direct retail energy acquisition, commercial and industrial contracting, wholesale optimization, and partner channels, but the West/Other data package does not provide customer counts or churn for this segment. That absence matters because the segment's apparent revenue decline from $4.706 billion in FY2022 to $3.202 billion in FY2025 could reflect lower commodity pass-through, divestitures, contract repricing, weaker volumes, or a mix of all four. The data package tells us not to model the FY2025 decline as pure organic customer loss because management specifically tied EBITDA comparability to Airtron and Cottonwood [data_package section 6, West/Other commentary].

2. Current Economics

FY2025 is the TTM base because the Stage 0 anchor ends at 2025-12-31. West/Other generated $3.202 billion of revenue, $149 million of GAAP operating income, and $137 million of adjusted EBITDA on the headline table that includes Corporate activity [data_package section 1; section 3]. Segment GAAP operating margin was 4.7%. The adjusted EBITDA figure needs labeling discipline: the data package states the FY2025 release appendix separates West/Other adjusted EBITDA at $180 million and Corp/Elim at negative $43 million, while the headline segment-results table reports West/Other at $137 million with a footnote that includes Corporate activity [data_package section 1]. For this B appendix, GAAP operating income is the main forward metric because the synthesis agent needs segment operating income. Adjusted EBITDA is used only as a qualitative cross-check on recurring margin power.

The current economics are small and volatile. Revenue declined 16.2% in FY2025 after declining 10.0% in FY2024 and 9.9% in FY2023 [data_package section 3, West/Other table]. The three-year revenue CAGR from FY2022 to FY2025 was negative 12.0%. Operating income moved from $558 million in FY2022 to negative $862 million in FY2023, $82 million in FY2024, and $149 million in FY2025 [data_package section 3]. The FY2023 loss makes a naive margin average unusable. The more useful facts are that FY2024 and FY2025 were low-single-digit positive margin years, while the segment can still swing meaningfully with commodity, hedging, portfolio, and cost-to-serve effects.

Capital intensity is not disclosed by segment. Consolidated capex was $1.147 billion in FY2025, or 3.7% of consolidated revenue, but that number includes Texas Energy Fund projects, Rockland generation, LS Power-related timing, and other corporate capital needs [data_package section 7]. West/Other likely has lower direct growth capex than Texas generation projects, but it is not capital-free. Retail energy working capital, collateral, hedging, customer acquisition, and wholesale market credit support all use balance sheet capacity even if they do not appear as plant capex in a segment disclosure. The low GAAP operating margin also leaves limited room for adverse swings before the segment becomes earnings-neutral.

The latest quarterly trend is also noisy. The data package's FY2025 quarterly revenue table shows West/Other headline-including-Corporate revenue of $1.099 billion in Q1, $675 million in Q2, $715 million in Q3, and $713 million in Q4 [data_package section 5]. Quarterly adjusted EBITDA, again headline including Corporate, was $77 million, $43 million, $19 million, and $12 million, respectively [data_package section 5]. The sequential pattern shows the highest revenue and EBITDA in Q1 and much thinner profitability by the back half. The management comments attached to Q2 and Q3 point to structural comparability headwinds from Cottonwood and Airtron rather than a detailed organic demand bridge [data_package section 6]. That is why this appendix uses a flat-to-low-growth base case rather than extrapolating the negative FY2023-FY2025 CAGR indefinitely.

3. Unit Economics

West/Other converts revenue to operating income through a spread business. The important equation is not units sold times fixed price; it is gross margin after cost to serve load, hedge performance, market volatility, capacity/ancillary revenue where applicable, retail customer retention, bad debt, customer acquisition, and fixed operating cost absorption. Because the segment is small, mix changes matter. A modest shift in commodity pass-through can move revenue without changing gross profit proportionately; a divested services business can reduce revenue and EBITDA but also remove costs; a lease expiration can reduce EBITDA without a clean revenue line. This is exactly the analytical problem the data package flags with Airtron and Cottonwood.

The reported margin record is poor evidence of a moat. West/Other operating margin was 3.1% in FY2021, 11.9% in FY2022, negative 20.3% in FY2023, 2.1% in FY2024, and 4.7% in FY2025 [data_package section 3]. A high-quality spread business would show either stable per-customer margin, scale leverage, or recurring contracted cash flows. West/Other does not disclose those proof points. The FY2022 margin could reflect favorable conditions, but the FY2023 loss shows the segment is exposed to swings that can overwhelm normalized earnings. The rebound to 4.7% in FY2025 proves the segment is not structurally broken, but it does not prove sustainably high returns.

The segment likely has some real customer and operational advantages. NRG's broader platform has procurement scale, risk management expertise, market access, credit support, retail systems, and experience serving power and gas customers. Those matter in markets where smaller retail suppliers can be squeezed by collateral requirements, volatility, or customer acquisition costs. However, West/Other lacks the most visible company-level growth advantages. Texas has ERCOT scale, Texas Energy Fund projects, residential VPP targets, and data-center contract optionality. East has PJM/New York/New England capacity exposure and post-LS Power generation optionality. Vivint has recurring smart-home service revenue and disclosed retention commentary. West/Other has neither a disclosed customer growth KPI nor a disclosed high-margin recurring product KPI.

What breaks margins up? First, normalization after Airtron/Cottonwood could make FY2025 a cleaner base, allowing the remaining book to earn mid-single-digit operating margins. Second, western load growth and resource adequacy needs can raise the value of flexible supply, hedging skill, and customer load management. FERC's 2025 State of the Markets noted upward revisions in load growth expectations across multiple regions and forecasted peak-load growth around 3% or more for California and non-California WECC starting in 2026, with stronger growth expectations than the 2022 vintage forecasts (FERC 2025 State of the Markets, Figure 3 discussion). Third, Alberta load continued to grow in 2025: AESO's 2025 annual statistics show Alberta Internal Load total of 90,371 GWh, up from 88,827 GWh in 2024, with average load up 2.0% [AESO 2025 Annual Market Statistics page, lines 240-250]. Load growth can improve contracting opportunity if NRG has a credible offer.

What breaks margins down? First, western markets have intense price and procurement competition. California's market monitor said Western Energy Imbalance Market prices averaged about $40/MWh in 2024, down 35% from 2023 despite a 2% load increase, mainly because of lower natural gas prices [CAISO DMM notice, 2025-08-07]. Lower wholesale prices can help retail procurement costs, but they can also compress opportunities for merchant optimization and reduce the value of some hedged or contracted positions. Second, solar and battery additions change intraday price shapes. CAISO expected 1,654 MW of battery and 354 MW of solar to come online between April 1 and June 30, 2025 alone [CAISO 2025 Summer Loads and Resources Assessment]. Third, Canadian and western U.S. markets are fragmented by jurisdiction. The Canadian Energy Regulator explains that electricity grids are mostly provincial/territorial, with Alberta and Ontario structured for competition while many provinces are vertically integrated [CER market snapshot, 2025]. Fragmentation limits a simple national scale story.

4. Competitive Dynamics

The segment competes in at least three overlapping arenas. The first is retail energy supply, where customers can often choose between utility/default service, community-choice aggregation, municipal or cooperative options, and competitive suppliers. The second is wholesale/market optimization, where NRG competes with utilities, independent power producers, marketers, banks or trading houses, and load-serving entities that manage power portfolios. The third is Canadian provincial power and gas market participation, where competitive scope depends heavily on local regulation. Because NRG does not disclose West/Other customer count, state mix, or province mix, competitive analysis must be directional rather than share-based.

In the western U.S., California is the obvious reference market even if NRG's exact exposure is not disclosed. California's retail environment is not a classic mass competitive supply market like Texas; community-choice aggregators and investor-owned utilities play major roles, and resource adequacy obligations make supply procurement a sophisticated, regulated function. CAISO's 2025 summer assessment projected CAISO peak demand increasing from 46,094 MW in 2025 to 52,940 MW in 2030, a 15% increase, and annual energy increasing from 217,686 GWh to 271,992 GWh over the same period [CAISO 2025 Summer Loads and Resources Assessment, load projections]. That demand backdrop is favorable for suppliers with credit, risk management, and customer relationships. But the same CAISO assessment also described substantial expected resource additions and a 1,451 MW resource adequacy surplus for the 1-in-10 loss-of-load target under its probabilistic case [CAISO 2025 Summer Loads and Resources Assessment]. The competitive implication is mixed: load growth improves addressable demand, while new capacity and mandated resource adequacy can keep margins contested.

Western Energy Imbalance Market dynamics also matter. CAISO's DMM published that 2024 WEIM prices averaged around $40/MWh, down 35% from 2023 despite a 2% load increase, and found the markets continued to perform efficiently and competitively [CAISO DMM notice, 2025-08-07]. Efficient and competitive markets are not bad for NRG, but they are not a moat gift. They reward operational competence, hedging, balance sheet, and customer access more than brand alone. The price spread between the Pacific Northwest and Desert Southwest that the DMM described also highlights congestion and regional shape risk. A supplier can earn value by managing those differences, but mistakes in basis, load shape, or procurement timing can consume the spread quickly.

Canada adds a different competitive map. The Canadian Energy Regulator's 2025 market snapshot states that provincial and territorial entities generally manage generation, distribution, load forecasting, access, and reliability; Alberta and Ontario allow competition, while many provinces retain vertically integrated crown corporations [CER market snapshot]. Alberta is the most relevant competitive reference for a deregulated provincial market. AESO's annual market statistics page shows 2025 Alberta Internal Load of 90,371 GWh and 2.0% average load growth, and the AESO 2024 report emphasized that Alberta prices are sensitive to supply, demand, reserve margin, gas prices, and renewable additions [AESO 2025 statistics page; AESO 2024 Annual Market Statistics]. In Alberta, an energy retailer or marketer competes against sophisticated local players such as ENMAX, EPCOR, ATCO-related entities, TransAlta-related supply, utilities, municipalities, and brokers. NRG's West/Other segment may benefit from market skill, but it does not appear to have a dominant local franchise.

The direct public-company peer set is imperfect. Vistra has scale in retail and generation but is more Texas/East/nuclear/generation-heavy than West/Other. Constellation is a large competitive power and retail supplier with nuclear-heavy economics. Calpine is private but has material western generation history. Shell Energy, BP, and other marketers compete in commercial/industrial energy services. Local utilities and CCAs set default or alternative offers in many western jurisdictions. In Alberta and other Canadian provinces, large incumbent utilities and provincial frameworks shape the competitive field. Against that set, NRG's West/Other edge is likely the corporate platform rather than a segment-specific moat.

Pricing power is therefore situational. NRG can have pricing power when it owns customer relationships that value reliability, fixed-price risk transfer, carbon or renewable attributes, complex load management, or structured supply. It has less pricing power in commodity mass-market retail or where default utility/CCA offers establish a visible price benchmark. The fact that West/Other revenue has declined for three straight years and the segment produced only 4.7% GAAP operating margin in FY2025 argues against assuming broad pricing power.

5. Segment-Level Moat

West/Other has a narrow operational moat, not a durable franchise moat. The protective elements are procurement scale, risk controls, market participation capability, customer systems, collateral capacity, and parent-company knowledge transfer from Texas/East. These can keep NRG in the market when smaller competitors exit after volatility. They can also support stable mid-single-digit segment operating margins if the book is managed conservatively.

The segment does not have a clear 5-10 year moat of its own. It does not disclose recurring contract backlog, long-term contracted data-center revenue, customer retention, MW of owned capacity in the West/Other segment, market share, or product-level gross margin. It also lacks the brand-recurring economics of Vivint. The main barrier to entry is competence and balance sheet, not a customer lock-in mechanism. In commodity retail and wholesale energy, competence matters but can be competed away by other well-capitalized suppliers.

The positive moat argument is that complexity itself can be a barrier. Western markets are increasingly shaped by renewable intermittency, storage, congestion, resource adequacy, weather risk, and load growth from electrification and industrial demand. CAISO's 2025 assessment points to strong 2025-2030 peak and energy growth, while also noting that extreme drought, wildfires, widespread heat events, and disruptions remain outside the core assessment [CAISO 2025 Summer Loads and Resources Assessment]. A supplier with risk systems can monetize complexity and avoid blowups. Alberta's market history also shows cyclicality: AESO's 2024 Annual Market Statistics highlighted that new thermal, wind, and solar capacity can push prices below long-run averages, while coal retirements, demand growth, and low reserve margins contributed to spikes in earlier years. Navigating those cycles is valuable.

The bear moat argument is stronger. If West/Other's moat were durable, the segment should show either more stable operating margin or disclosed growth KPIs. Instead, FY2021-FY2025 operating margin ranged from negative 20.3% to positive 11.9% [data_package section 3]. That volatility is not only a macro problem; it is a signal that the segment's economics are not insulated. The segment can be useful inside NRG because it diversifies market exposure and preserves optionality, but it should not receive a high multiple or aggressive terminal-growth assumption in a bottoms-up five-year

forecast.

6. Historical Growth Rates

The table below reproduces the West/Other historical base from the verified data package. Dollars are in billions. The source row is shown for every financial row because the data package is the controlling source for NRG historicals.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	3-yr CAGR / trend	Most recent YoY	Data package cite
Revenue	$3.659	$4.706	$4.241	$3.819	$3.202	(12.0)% from FY2022 to FY2025	(16.2)%	data_package section 3, West/Other revenue and YoY rows
GAAP operating income	$0.112	$0.558	$(0.862)	$0.082	$0.149	n/m due FY2023 loss	+81.7%	data_package section 3, West/Other operating income row
GAAP operating margin	3.1%	11.9%	(20.3)%	2.1%	4.7%	volatile, not trendable	+260 bps	data_package section 3, West/Other operating margin row
Headline adjusted EBITDA including Corporate where footnoted	n/a	n/a	n/a	n/a	$0.137	n/a	n/a	data_package section 1, current reportable segments; section 5 caveat

Product-level dollar revenue is not available below the reportable segment. The finest dollar-disclosed line is total West/Other segment revenue [data_package section 4]. Therefore, the product/subsegment table is necessarily a disclosure table rather than a true product revenue bridge.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	3-yr / available CAGR	Most recent YoY	Data package cite
West and Canada operations plus other investments	$4.241, included in segment total	$3.819, included in segment total	$3.202, included in segment total	(13.1)% from FY2023 to FY2025	(16.2)%	data_package section 4, West/Other "West and Canada operations" row; section 3 West/Other revenue row
Airtron/Cottonwood legacy items	not separately disclosed	not separately disclosed	no continuing revenue line disclosed	n/a	n/a	data_package section 4, West/Other "Airtron/Cottonwood legacy items" row

Internal arithmetic checks: FY2024 revenue of $3.819 billion multiplied by 0.838 equals $3.200 billion, which rounds to reported FY2025 revenue of $3.202 billion; the data-package YoY decline of 16.2% ties. FY2023 revenue of $4.241 billion multiplied by 0.900 equals $3.817 billion, which rounds to reported FY2024 revenue of $3.819 billion; the data-package YoY decline of 10.0% ties. FY2022 revenue of $4.706 billion multiplied by 0.901 equals $4.240 billion, which rounds to reported FY2023 revenue of $4.241 billion; the data-package YoY decline of 9.9% ties. FY2021 revenue of $3.659 billion multiplied by 1.286 equals $4.705 billion, which rounds to FY2022 revenue of $4.706 billion; the data-package YoY growth of 28.6% ties. No back-solved product revenue is used.

The historical lesson is not "the segment shrinks forever." It is "the current segment base is lower, smaller, and cleaner after portfolio changes, but management has not provided evidence for a return to FY2022 revenue or margin." The FY2022 revenue base of $4.706 billion is not a valid forward target unless Airtron/Cottonwood or commodity pass-through effects can be normalized. The FY2025 base of $3.202 billion is the TTM anchor.

7. Management Commentary And Data-Package Synthesis

The data package contains only two explicit West/Other management-commentary rows and one data-package synthesis paragraph. That limited guidance is itself analytically important. It means the segment has no disclosed management target comparable to Texas VPP MW targets, data-center contract MW, Vivint customer retention, or consolidated adjusted EPS growth.

Data package row	Source phrase	Topic	Interpretation
data_package section 6, West/Other row dated 2025-08-06 / Q2 FY2025	"expiration of the Cottonwood lease"	Structural EBITDA headwind	FY2025 comparability is distorted by an asset/lease change. The forward model should not treat the full FY2025 EBITDA decline as organic customer attrition, but it also should not add back a lease that has expired.
data_package section 6, West/Other row dated 2025-11-06 / Q3 FY2025	"sale of Airtron"	Portfolio change	Airtron's September 2024 sale continued to reduce YoY EBITDA through 2025. The correct forecast treatment is to remove Airtron as a continuing growth line and avoid using pre-sale revenue as a recurring base.
data_package section 6, West/Other synthesis paragraph, not a management quote	"least clean forward-growth disclosure"	Modeling posture	The data package explicitly recommends low growth, margin normalization after Airtron/Cottonwood effects, and no separate valuation premium unless future disclosures show new contracted assets or customer economics.

There is no West/Other revenue CAGR target, customer count target, operating margin target, or capital deployment target in the data package. [DATA GAP: management does not provide segment-specific West/Other FY2026 or 2030 revenue, operating income, adjusted EBITDA, customer, MW, churn, or margin guidance in the verified package.] The model therefore uses historical segment revenue, FY2025 operating margin, the portfolio-change caveat, and external market context to build bear/base/bull cases.

8. Forward Growth Assumptions

All forward growth rates compound from TTM revenue of $3.202 billion at 2025-12-31 to the horizon date of 2030-12-31. This is exactly five calendar years. Because there is no product-level dollar disclosure, the bottom-up model has one continuing revenue line and one non-continuing comparability line. The continuing line is West and Canada operations plus other investments; the non-continuing line is Airtron/Cottonwood legacy items, which is modeled at zero standalone continuing revenue because NRG does not disclose a remaining product base.

Base Case Revenue Assumptions

Product / sub-segment	Historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
West and Canada operations plus other investments	(13.1)% from FY2023 to FY2025; (12.0)% from FY2022 to FY2025	(16.2)%	No explicit growth guide; management flags Airtron/Cottonwood headwinds	+0.5%	Base assumes the FY2023-FY2025 decline was heavily affected by portfolio/lease changes and commodity mix, then stabilizes at roughly flat revenue. Load growth in CAISO/WECC and Alberta supports some demand, but the lack of customer or product disclosure prevents a higher base CAGR.
Airtron/Cottonwood legacy items	n/a	n/a	Airtron sold; Cottonwood lease expired	0.0% revenue line	These are not continuing products with disclosed revenue. They explain the bridge into FY2025 but are not grown forward.

Base-case revenue math: $3.202 billion multiplied by 1.005 to the fifth power equals $3.283 billion at 2030-12-31. This is only $81 million above the TTM base. It is intentionally below western load-growth indicators because NRG has not shown that West/Other can convert load growth into segment revenue growth after the portfolio exits.

Bull Case Revenue Assumptions

Product / sub-segment	Historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
West and Canada operations plus other investments	(13.1)% from FY2023 to FY2025	(16.2)%	No explicit guide	+2.0%	Bull assumes the remaining book is cleaner after Airtron/Cottonwood, western/Canadian load growth improves contracting opportunities, and NRG uses its parent platform to win selective commercial or structured supply customers. This still does not assume a return to FY2022 revenue.
Airtron/Cottonwood legacy items	n/a	n/a	Sold/expired	0.0%	No continuing revenue line is disclosed. Bull does not resurrect disposed assets.

Bull-case revenue math: $3.202 billion multiplied by 1.02 to the fifth power equals $3.535 billion. That remains $1.171 billion below FY2022 revenue, which is appropriate because the segment is no longer the same portfolio and no product-level growth target exists.

Bear Case Revenue Assumptions

Product / sub-segment	Historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
West and Canada operations plus other investments	(12.0)% from FY2022 to FY2025	(16.2)%	No explicit guide	(3.0)%	Bear assumes some of the decline is organic or competitive, not just portfolio noise. Utility/CCA/default-service competition, lower wholesale volatility, customer churn, and weak disclosure keep revenue drifting down, though at a slower pace than the FY2023-FY2025 period.
Airtron/Cottonwood legacy items	n/a	n/a	Sold/expired	0.0%	No continuing revenue line is disclosed.

Bear-case revenue math: $3.202 billion multiplied by 0.97 to the fifth power equals $2.750 billion. This is a material decline but not as severe as the prior three-year CAGR because management's cited headwinds should no longer repeat annually once the disposed/expired items are out of the base.

Thesis-consistency check: The model does not create a sharp unexplained deceleration from a high current growth rate. Current disclosed YoY revenue growth is negative 16.2%, so the base and bull cases actually require stabilization and improvement. The justification is the portfolio-change caveat from management, plus external load growth. The bear case continues the negative direction but moderates it because one-time divestiture/expiration effects should fade.

9. Forward Operating Margin Assumptions

The current annual GAAP operating margin is 4.7%, calculated as $149 million of operating income divided by $3.202 billion of revenue [data_package section 3]. Quarterly adjusted EBITDA margins from the headline table, including Corporate where footnoted, declined through FY2025 from 7.0% in Q1 to 1.7% in Q4 [data_package section 5]. Those quarterly margins are useful as warning signals but not as GAAP segment operating margins. The annual GAAP figure controls the forecast.

Case	TTM revenue base	TTM operating margin	TTM operating income	TTM+5y margin	Mechanism
Bear	$3.202B	4.7%	$0.149B	2.0%	Revenue attrition reduces fixed-cost absorption; retail/procurement competition limits spread recovery; remaining book lacks enough scale to offset volatility.
Base	$3.202B	4.7%	$0.149B	5.2%	Modest normalization after Airtron/Cottonwood, better cost discipline, and stable procurement lift margin by 50 bps from FY2025, but no high-margin new product is assumed.

Case	TTM revenue base	TTM operating margin	TTM operating income	TTM+5y margin	Mechanism
Bull	$3.202B	4.7%	$0.149B	7.0%	Cleaner portfolio, improved customer mix, better structured supply contracts, and western load/resource complexity allow more spread capture. Margin stays below FY2022's 11.9% because FY2022 may have been cyclically favorable.

The margin assumptions are deliberately restrained. A base case above 6% would require evidence that FY2025's low headline adjusted EBITDA was mainly Corporate allocation or one-time noise and that the continuing West/Other book can earn closer to Texas-level margins. The data package does not provide that evidence. A bull case of 7.0% is still plausible because the segment earned 11.9% in FY2022 and because a smaller, cleaner book may have better mix after disposed/expired items. But it is not the base case because FY2023's negative 20.3% margin shows downside volatility is real.

There is no product-level margin breakout. [DATA GAP: NRG does not disclose West/Other gross margin, customer acquisition cost, churn, retail margin per MWh, generation margin, Canada margin, or other-investment income.] Therefore, segment margin is not revenue-weighted across multiple products; it is a segment-level operating margin applied to the single continuing revenue line. The operating income calculation is straightforward: horizon revenue multiplied by horizon margin.

Bear operating income equals $2.750 billion of revenue multiplied by 2.0%, or $55 million. Base operating income equals $3.283 billion multiplied by 5.2%, or $171 million. Bull operating income equals $3.535 billion multiplied by 7.0%, or $247 million. These are all modest relative to consolidated NRG and should not drive the company thesis. The key role of West/Other in the synthesis is avoiding overstatement: do not assign a data-center multiple, Vivint recurring-service margin, or Texas integrated-retail economics to this segment.

10. Segment Rollup

The rollup is built from the single continuing segment revenue line because product-level dollars are not disclosed. The table below shows the arithmetic tie.

Case	Continuing West/Canada and other investments revenue	Airtron/Cottonwood continuing revenue	Segment TTM+5y revenue	Segment TTM+5y operating margin	Segment TTM+5y operating income	Probability
Bear	$2.750B	$0.000B	$2.750B	2.0%	$0.055B	25%
Base	$3.283B	$0.000B	$3.283B	5.2%	$0.171B	55%
Bull	$3.535B	$0.000B	$3.535B	7.0%	$0.247B	20%

Arithmetic tie-out: Bear $2.750 billion multiplied by 2.0% equals $0.055 billion. Base $3.283 billion multiplied by 5.2% equals $0.171 billion. Bull $3.535 billion multiplied by 7.0% equals $0.247 billion. Revenue totals reconcile exactly to the modeled product/subsegment rows because there is only one continuing dollar-disclosed line. The probabilities weight to an expected horizon revenue of about $3.178 billion and expected operating income of about $0.155 billion, which is close to the FY2025 operating-income base. That is the right posture for a segment with poor disclosure and limited management growth commentary.

This rollup is also compatible with the data package's strategic framing. The company-level upside in NRG comes more from Texas, East/post-LS Power, data-center contracts, Vivint, and capital allocation than from West/Other. West/Other can help or hurt consolidated results, but the evidence does not justify making it a growth engine. In a five-year synthesis, the base case should carry West/Other as a stable, low-single-digit margin contributor with modest upside and a real chance of slippage.

11. Key Risks And Wildcards

Bear risk - continuing revenue decline. The biggest segment-specific risk is that the FY2023-FY2025 revenue decline was not mostly portfolio noise. If customers, volumes, or competitive pricing continue deteriorating after Airtron/Cottonwood effects fade, even the bear case may be too mild. The first signal would be FY2026 West/Other revenue down more than low single digits on a cleaner base.

Bear risk - margin compression from competitive procurement. Western retail and wholesale markets can be efficient and competitive. CAISO's market monitor found WEIM prices declined sharply in 2024 and that markets performed efficiently and

competitively. If procurement savings are passed through to customers or offset by lower optimization value, West/Other may struggle to earn even mid-single-digit margins.

Bear risk - weather, wildfire, and reliability events. CAISO explicitly notes that extreme drought, wildfire, widespread regional heat, and other disruptions were outside the core summer assessment. These events can create both opportunity and loss. For a small segment with thin margins, a hedge or load-shape error during an extreme period can erase a year's operating income.

Bear/base risk - Canadian regulatory fragmentation. The Canadian Energy Regulator states electricity regulation is mostly provincial/territorial, with only some provinces allowing competition. That structure limits easy scaling. If NRG's Canada exposure is in less open or more utility-dominated provinces than assumed, the addressable opportunity is smaller.

Base wildcard - a cleaner post-divestiture book. The favorable version of the story is not high growth; it is cleanup. Once Airtron and Cottonwood are no longer distorting YoY comparisons, the continuing book may show stable revenue and better normalized margins. That is the base case's core mechanism.

Bull wildcard - western load/resource complexity. CAISO forecasts material 2025-2030 load and energy growth, and FERC points to upward revisions in western load-growth expectations. If NRG has customer relationships and supply capabilities in the right nodes or provinces, it can win structured contracts that produce better spread than generic retail supply. This is the main path to the bull case.

Bull wildcard - post-LS Power taxonomy or CPower allocation. The LS Power/CPower acquisition closed after the TTM anchor and may alter regional capacity, demand response, and segment reporting after Q1 2026. The data package notes post-LS Power taxonomy is not yet reported in a full 10-Q as of 2026-04-30 [data_package section 10]. If some demand-response or western capacity economics eventually land in West/Other, the segment could become more relevant than this appendix models. That is not included in the base case because the historical TTM anchor does not contain it.

Final segment stance: West/Other is a small, volatile, under-disclosed energy segment. It has operating competence and some market optionality, but it does not have enough evidence for a high-growth or high-margin segment moat. The correct ER2 treatment is conservative: hold revenue roughly flat in base, allow margin normalization only to 5.2%, and reserve the company-level upside for segments with better disclosure and stronger strategic anchors.

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$2.750B	2.0%	$0.055B	25%
Base	$3.283B	5.2%	$0.171B	55%
Bull	$3.535B	7.0%	$0.247B	20%

Source Notes For External Competitive Context

External sources were used only for competitive and market context, not for NRG historicals. The key sources are: CAISO Department of Market Monitoring 2024 annual report notice published 2025-08-07; CAISO 2025 Summer Loads and Resources Assessment; FERC 2025 State of the Markets report published March 2026; AESO 2025 Annual Market Statistics page posted 2026-03-11; AESO 2024 Annual Market Statistics report; and the Canadian Energy Regulator 2025 market snapshot on electricity trade jurisdiction. NRG historical figures, management snippets, and segment definitions come from `data_package.md` and `quant_foundation.md` only.

Appendix B4 - Vivint Smart Home

Vivint Smart Home - Segment Deep Dive

Company: NRG Energy, Inc. Ticker: NRG Segment: Vivint Smart Home Stage 0 anchor: TTM ended 2025-12-31; TTM+5y horizon is 2030-12-31. Historical source discipline: all NRG/Vivint historical dollars, margins and management quotes are taken from `data_package.md`, which was verified and cleared for Wave 2. External sources are used only for competitive context.

0. Segment Boundary And Taxonomy Note

Vivint Smart Home is a distinct NRG reportable segment beginning with the 2023 acquisition. The segment is not comparable before FY2023: the data package explicitly states that FY2021 and FY2022 have no Vivint segment rows, and that clean post-acquisition comparability should use FY2023-FY2025. This appendix therefore uses FY2023-FY2025 for historical dollar comparisons and does not backfill or splice pre-acquisition Vivint results into NRG's legacy taxonomy. The other critical boundary is product disclosure: NRG does not disclose Vivint revenue by subscription monitoring, equipment, installation, financing, or service components in the verified data package. The most granular dollar-disclosed line is the Vivint Smart Home reportable segment itself. Accordingly, the forward model is a one-line segment model, with product-level commentary kept qualitative and with product-level dollar gaps marked explicitly.

1. What This Segment Actually Is

Vivint Smart Home is NRG's residential smart-home security, automation, monitoring, installation and related services platform. Economically, it is different from NRG's Texas, East and West/Other energy segments. The energy segments combine retail power load, supply procurement, generation, hedging, capacity, and market operations. Vivint is a customer-account business: it installs or supports home security and automation equipment, then earns recurring monthly service revenue from monitoring and related services over time. The model therefore depends less on wholesale power spreads and more on subscriber acquisition, retention, monthly recurring service margin per customer, equipment/installation economics, credit quality, and amortization of acquired intangibles and customer-related assets.

For a household, Vivint is a bundled safety and convenience product. The installed system can include security sensors, cameras, control panels, smart locks, thermostats and related connected devices. The customer proposition is not simply "hardware." Hardware is the entry point into a monitored service relationship: the household pays for a professionally installed and monitored service layer, mobile control, alerts, customer support and automation. That makes Vivint closer to ADT than to a pure hardware manufacturer, and closer to a recurring service business than to a one-time consumer electronics sale.

The pricing model has three economic pieces even though NRG does not disclose each separately in dollars. First, there is a customer-acquisition and installation event. This consumes sales expense, field labor, equipment and, in many cases across the industry, financing or deferred revenue mechanics. Second, there is an ongoing monthly service stream, where retention and pricing determine the long-term value of the account. Third, there are lifecycle service and upgrade opportunities: additional devices, replacement equipment, software functionality, and service calls. The verified NRG data package does not provide dollar disclosure for these pieces, so the model treats Vivint as one reported segment and uses retention, customer additions and recurring service margin commentary as qualitative drivers.

Go-to-market is direct-to-consumer and professionally installed rather than a pure do-it-yourself model. That has two implications. The positive side is higher customer commitment and a clearer monitored-security value proposition. Professional installation reduces setup friction, gives the company a chance to configure a whole-home system, and can support higher monthly revenue per customer than a self-monitoring app. The negative side is capital intensity and customer acquisition cost. A field-sales and installation model requires labor, inventory, scheduling, financing support and quality control. A weak cohort can destroy value if customers churn before the acquisition cost and installation investment are recovered.

NRG's strategic reason for owning Vivint is broader than standalone home security. Vivint gives NRG a large residential customer relationship, a connected-device footprint, and a channel into household energy orchestration. In theory, the same home relationship that supports cameras and monitored security can eventually support thermostats, demand response, backup power, solar-adjacent offerings, retail energy cross-sell, and virtual power plant participation. The data package already highlights NRG's Texas residential VPP targets in the energy business, but it does not disclose Vivint-specific VPP revenue. The correct modeling treatment is to recognize strategic option value without adding unreported product revenue.

2. Current Economics

Vivint FY2025 revenue was $2.144 billion, equal to about 7.0% of NRG's FY2025 consolidated revenue of $30.713 billion [data_package Section 1, segment taxonomy table]. Segment GAAP operating income was $0.053 billion, producing a 2.5% GAAP operating margin [data_package Section 3, Vivint Smart Home row]. Adjusted EBITDA was much larger at $1.092 billion, implying an adjusted EBITDA margin of roughly 50.9% [data_package Sections 1 and 3]. This gap is not a rounding issue. It is the central accounting caveat for Vivint: GAAP operating income is materially lower than adjusted EBITDA because the segment carries acquisition-related amortization, depreciation, customer-related accounting and other non-cash or non-operating adjustments that are not reflected in adjusted EBITDA.

The verified annual history is short. Revenue was $1.589 billion in FY2023, $1.991 billion in FY2024, and $2.144 billion in FY2025. Reported YoY growth was 25.3% in FY2024 and 7.7% in FY2025. Operating income was $0.049 billion in FY2023, $0.124 billion in FY2024, and $0.053 billion in FY2025. Operating margin was 3.1%, 6.2%, and 2.5%, respectively. That history argues for two conclusions. First, revenue growth remains positive but has already decelerated from post-acquisition expansion to a high-single-digit pace. Second, GAAP operating income is too volatile and too small relative to adjusted EBITDA to be modeled as a simple fixed percentage of service revenue without acknowledging the amortization burden.

The latest quarterly trend confirms the recurring-revenue character but also warns against using quarterly adjusted EBITDA as a clean GAAP margin proxy. The data package lists Vivint quarterly revenue in FY2025 of $0.494 billion, $0.504 billion, $0.532 billion, and $0.614 billion from Q1 through Q4 [data_package Section 5, quarterly segment trend]. Adjusted EBITDA in the same quarters was $0.276 billion, $0.255 billion, $0.272 billion, and $0.275 billion [data_package Section 5]. The revenue progression is visibly upward through the year, while adjusted EBITDA is steadier. The full-year adjusted EBITDA anchor in the data package is $1.092 billion, versus $1.078 billion if the four rounded quarterly adjusted EBITDA figures are summed. Because the appendix's required output is revenue, operating margin and operating income, and because the data package says quarterly segment GAAP operating income is not provided in the same clean form as annual segment operating income, this model uses FY2025 GAAP operating income as the margin anchor and treats adjusted EBITDA only as evidence of the underlying cash earnings power before the GAAP amortization layer.

The most useful customer-level operating indicators in the verified data package are qualitative rather than full KPI tables. Management cited "record-high retention rate of 90%" in Q1 FY2025, "record new customer adds" in Q3, and improvement in "monthly recurring service margin per customer" in Q4 [data_package Section 6, Vivint Smart Home table]. Section 4 also notes that the Q1 release cited over 6% net customer growth. These snippets point to the real unit economics: a growing account base, account retention, and better service margin per account. They do not provide ending customer count, average revenue per user, subscriber acquisition cost, payback period, or churn by vintage. This is a data limitation, but it is also a useful discipline: the model should not pretend to know subscriber-level economics that NRG has not disclosed.

Capital intensity is mixed. The segment is not capital-intensive in the same way as a power-generation segment, but it is not asset-light like a pure SaaS software provider. Professional installation requires field labor, inventory, equipment cost, working capital and customer acquisition spend. It also requires ongoing monitoring infrastructure, customer service, truck rolls and technology refresh. The accounting burden is visible in the difference between FY2025 adjusted EBITDA of $1.092 billion and GAAP operating income of $0.053 billion. In a buy-side model, that means adjusted EBITDA can support cash generation, but GAAP operating income may remain thin for years unless amortization rolls down, new-cohort economics improve, or the company changes the mix of customer acquisition and financing.

3. Unit Economics

Vivint's unit economics start with an expensive customer origination event. A professionally installed security and automation system requires sales time, technician labor, equipment, logistics and back-office support before the customer produces much recurring revenue. This is the same structural feature that ADT describes in its own 2025 10-K: ADT says a significant upfront investment is required to acquire new subscribers and that revenue break-even is generally achieved in about two years. That peer disclosure is not a Vivint number, but it is relevant industry evidence. It tells us that subscriber-growth acceleration is not automatically good. Growth creates value only if cohorts stay long enough and pay enough monthly revenue to cover acquisition and service costs.

Once the account is installed, the revenue quality improves. Monitoring and related service revenue is recurring and contract-like. Customers are paying for a service relationship, not just for devices. The value proposition is also tied to peace of mind, emergency response, household routines and installed hardware, all of which can reduce casual churn. NRG's data package cites 90% retention and record new customer additions during FY2025, which supports the idea that the account base had healthy retention at the time of the TTM anchor. However, retention is not the same thing as no churn, and a 90%

retention rate still implies meaningful annual account loss if gross additions slow.

The service margin mechanism is straightforward. Revenue per account rises through pricing, feature attach, equipment upgrades and service mix. Cost per account is driven by monitoring operations, customer care, field service, technology infrastructure, payment defaults, equipment support, and sales/channel overhead. The segment's FY2025 adjusted EBITDA margin above 50% suggests that mature recurring accounts are highly profitable before amortization and certain corporate/accounting adjustments. But GAAP operating margin of 2.5% shows that accounting amortization and related charges absorb most of that economic spread in reported operating income.

This gap matters for the ER2 synthesis because the combined earnings model ultimately needs operating income, not adjusted EBITDA. Vivint can look like an outstanding recurring-revenue business on EBITDA and a barely profitable segment on GAAP OI. Neither view alone is sufficient. The EBITDA view captures account-level durability and cash-like service margins. The GAAP view captures the acquisition price, intangible amortization and the cost of building and maintaining the customer base. For the next five years, the correct base case is not to assume adjusted EBITDA margin flows through to operating income. Instead, it is to model gradual operating margin improvement as amortization becomes less punitive relative to revenue and as service margin per customer improves, while keeping GAAP margins far below adjusted EBITDA margins.

The key upside unit-economic driver is customer lifetime value. If Vivint can retain customers near 90%, maintain pricing, reduce installation friction, and cross-sell energy-related services without raising churn, the lifetime gross profit per installed account can increase. The key downside driver is poor payback. If customer acquisition cost rises, financing costs stay high, consumer credit weakens, or DIY/self-monitoring alternatives reduce willingness to pay, Vivint could add customers at attractive headline revenue growth while creating little GAAP operating income. Because the data package does not disclose subscriber acquisition cost or ARPU, this appendix does not convert the segment into a cohort model. Instead, it embeds those variables in scenario revenue growth and GAAP operating margin.

4. Competitive Dynamics

Vivint competes in a crowded, converging home security and smart-home market. The most direct professional monitoring competitor is ADT. ADT is larger, has roughly 6.1 million security monitoring service subscribers as of December 31, 2025, and generated $5.129 billion of 2025 revenue, including $4.216 billion of recurring monthly revenue. ADT also disclosed gross customer revenue attrition of 13.1% in 2025, up from 12.7% in 2024, and stated that a 1% change in attrition has about a $40 million annualized impact on recurring revenue. This provides a useful external benchmark: in monitored security, small changes in attrition are financially material because the revenue base is recurring and acquisition costs are front-loaded. Source: [ADT 2025 Form 10-K](https://s201.q4cdn.com/833622905/files/doc_financials/2025/q4/ADT-10-K-12-31-2025.pdf).

ADT also describes the competitive pressure that matters most to Vivint. Cable, telecom and large technology companies have entered home automation and monitored security, often bundling those offerings with existing services and sometimes at lower monitoring rates. ADT also flags DIY and self-monitoring, pricing transparency, tiered pricing, Google Nest integration, AI, and the Matter smart-home protocol as forces that could make switching easier and undercut legacy monitored-service economics. Those risks apply to Vivint as well. A household that once needed a proprietary professional system can now choose from more interoperable devices, mobile apps, cameras, smart locks and self-installed sensors. Professional monitoring still matters, especially for emergency response and higher-value customers, but the moat around the hardware layer is weaker than it was a decade ago.

Alarm.com is a different kind of competitor. It is not primarily a direct branded installer like Vivint. It is a software and cloud platform sold through service-provider partners. Alarm.com reported 2025 SaaS and license revenue of $689.4 million, up 9.2%, and total revenue of $1.011 billion, up 7.6%. Its 2026 outlook called for SaaS and license revenue of $743 million to $745 million and total revenue of $1.058 billion to $1.065 billion. That is relevant because Alarm.com shows that the software layer of connected property monitoring can grow high single digits even as the market matures. It also shows why the platform layer can be strategically valuable: software, video monitoring, automation and energy-management features can be distributed through many local and regional service providers. Source: [Alarm.com FY2025 results release](https://investors.alarm.com/news-releases/press-release-details/2026/Alarm-com-Reports-Fourth-Quarter-and-Full-Year-2025-Results/default.aspx).

Resideo competes from the product, distribution and professional channel side. Its Products and Solutions segment generated $2.688 billion of 2025 net revenue and $555 million of operating income, while ADI Global Distribution generated $4.784 billion of revenue and $212 million of operating income. Resideo describes itself as a leader in home HVAC controls, smoke and carbon monoxide detection, home safety, fire suppression and security products. It also announced a planned

separation of ADI, noting an expansive network of 100,000 professional installers and more than 15 million installations per year. This matters because professional installer ecosystems can steer hardware and platform choices. Vivint owns its customer relationship, but it still operates in a market where device makers, distributors and independent installers influence what gets installed in homes. Sources: [Resideo FY2025 results release](https://investor.resideo.com/news/news-details/2026/Resideo-Announces-Fourth-Quarter-and-Full-Year-2025-Financial-Results-and-Initiates-2026-Outlook/) and [Resideo ADI separation release](https://investor.resideo.com/news/news-details/2025/Resideo-Announces-Intention-To-Separate-ADI-Business-Creating-Two-Independent-Public-Companies/default.aspx).

The competitive map therefore has four layers. First is professional monitored security, where ADT and Vivint compete for homeowners who value installation, monitoring and a full-service relationship. Second is the software/platform layer, where Alarm.com, ADT+, Vivint's own platform and other cloud solutions compete to own the mobile interface, alerts, automation rules and data. Third is the hardware/device layer, where Resideo, Google Nest, Ring/Amazon, Apple HomeKit-compatible devices, cameras, sensors, locks, thermostats and Matter-compatible devices compete for device attach. Fourth is the energy-orchestration layer, where NRG has a potential advantage if it can link Vivint's device footprint and customer relationship to retail energy, demand response and VPP economics.

Pricing power is therefore partial rather than absolute. Vivint likely has pricing power with installed customers who value the service relationship and do not want to replace the system. It has less pricing power against a new customer comparing monthly fees with ADT, Ring, SimpliSafe, cable/telecom bundles, or self-monitoring. It also has less pricing power if Matter and other interoperability standards reduce switching friction. The base case assumes Vivint can maintain enough pricing and attach to grow revenue at a mid-single-digit CAGR. The bull case assumes NRG adds energy-related value and keeps retention strong. The bear case assumes price transparency and DIY substitution compress new customer economics and keep GAAP margins thin.

5. Segment-Level Moat

Vivint has a real but not impregnable segment moat. The strongest part is the installed customer base. Once a home has a professionally installed system, monitored service, configured devices and household routines built around the app, switching requires time, inconvenience and some risk. The household must either trust another provider, self-install devices, or accept a period of lower security functionality. That friction supports retention and recurring revenue. NRG's data package cites a 90% retention rate in Q1 FY2025, which is consistent with a meaningful installed-base moat.

The second moat element is service infrastructure. Monitoring, field service, customer care, device support, emergency response workflows, billing, financing, and regulatory/compliance processes are not trivial. A large provider can spread those capabilities across millions of accounts. Smaller entrants can attack narrow slices, but a full-service monitored-security model requires operational depth. That helps explain why ADT and Vivint remain relevant despite the rise of DIY devices.

The third moat element is NRG-specific optionality. NRG can combine Vivint with retail energy customer relationships, thermostats, household load control and VPP programs. If executed well, this could increase customer value and lower energy-system costs. A smart thermostat or connected device relationship can become more valuable when linked to retail power economics, demand response, backup power, or home energy management. The current data package does not disclose Vivint-specific VPP revenue, so this is not in the base revenue table as a separate line. It is still strategically relevant because it could support retention and pricing in the bull case.

The weak part of the moat is the device layer. Cameras, sensors, locks, thermostats and connected-home hubs are increasingly interoperable and widely available. ADT's risk discussion specifically calls out Matter as a protocol that could make smart-home devices more interoperable and switching less costly. Large technology companies can subsidize devices, bundle services, and spend more on AI/software. If the consumer views home security as a camera plus an app rather than a monitored service relationship, Vivint's professional model loses differentiation.

Over five years, the moat should protect a profitable installed base but not guarantee high growth. Retention can remain high while new additions slow. Service margin per customer can improve while GAAP operating margin remains constrained by amortization and acquisition cost. The segment earns a "moderate moat" label: enough durability to support mid-single-digit revenue growth and some margin improvement, but not enough to underwrite a high-teens growth case or assume software-like GAAP margins.

6. Historical Growth Rates

The historical table below reproduces the clean post-acquisition period from the verified data package. FY2021-FY2022 are excluded from the segment table because Vivint was not an NRG reportable segment before the 2023 acquisition. The table uses the required three fiscal-year row, but the CAGR is calculated over the two clean year-to-year intervals from FY2023 to FY2025.

Product / sub-segment	FY2023 rev	FY2024 rev	FY2025 rev	Clean-period CAGR	Most recent YoY	Data package cite
Vivint Smart Home segment, no product split disclosed	$1.589B [data_package Section 3, Vivint Smart Home row]	$1.991B [data_package Section 3, Vivint Smart Home row]	$2.144B [data_package Section 3, Vivint Smart Home row]	16.2% over FY2023-FY2025 [calc from Section 3]	7.7% [data_package Section 3, Vivint Smart Home row]	QF P2 / 10-K segment table via data_package Section 3
Smart-home subscriptions, installation, equipment and services	Included in segment; no separate product dollar line [data_package Section 4]	Included in segment; no separate product dollar line [data_package Section 4]	Included in segment; no separate product dollar line [data_package Section 4]	n/a	n/a	[DATA GAP: data_package Section 4 says no separate Vivint product dollar line]

Operating income history from the same data package row:

Segment	FY2023 OI	FY2024 OI	FY2025 OI	FY2023 margin	FY2024 margin	FY2025 margin	Data package cite
Vivint Smart Home	$0.049B	$0.124B	$0.053B	3.1%	6.2%	2.5%	data_package Section 3, Vivint Smart Home row

Arithmetic tie-out:

- FY2024 revenue growth: $1.589B x 1.253 = $1.991B, matching the data-package FY2024 revenue within rounding.
- FY2025 revenue growth: $1.991B x 1.077 = $2.144B, matching the data-package FY2025 revenue within rounding.
- FY2025 operating margin: $0.053B / $2.144B = 2.5%, matching the data-package operating margin within rounding.
- FY2025 adjusted EBITDA margin: $1.092B / $2.144B = 50.9%, using data-package Section 1 and the user's anchor. This is not used as the GAAP operating margin.

The key historical pattern is deceleration with margin volatility. FY2024 growth of 25.3% likely benefited from post-acquisition integration, customer additions and easier comparability. FY2025 growth of 7.7% is a better anchor for the forward period because it is the latest full year and aligns with management commentary about retention, customer additions and recurring service margin rather than acquisition-year catch-up. The FY2025 operating margin decline from 6.2% to 2.5% also means the model should not extrapolate FY2024 GAAP margin mechanically.

7. Management Guidance Quoted From Data Package

The verified data package contains three Vivint-specific management/IR snippets. They are short, but they define the forward anchor.

Date / period	Data-package row	Verbatim quote snippet	Topic	Interpretation
2025-05-12 / Q1 FY2025	data_package Section 6, Vivint Smart Home table	"record-high retention rate of 90%"	Customer retention	Retention is the foundation of Vivint's recurring service value. The quote supports a base case in which the installed account base remains durable, but it does not disclose gross churn, subscriber count, ARPU, or cohort payback.
2025-11-06 / Q3 FY2025	data_package Section 6, Vivint Smart Home table	"record new customer adds"	Customer growth	New additions were healthy in 2025. This supports continued revenue growth, but the model still decelerates from the FY2023-FY2025 CAGR because the latest full-year growth rate was 7.7% and because professional installation growth consumes acquisition cost.

Date / period	Data-package row	Verbatim quote snippet	Topic	Interpretation
2026-02-24 / Q4 FY2025	data_package Section 6, Vivint Smart Home table	"monthly recurring service margin per customer"	Unit economics	The key management signal is not just more customers, but better recurring service margin per customer. This supports gradual GAAP margin improvement in the base and bull cases, while keeping margins far below adjusted EBITDA.

[DATA GAP: The data package does not provide Vivint customer count, ARPU, subscriber acquisition cost, churn by cohort, average contract life, equipment revenue, installation revenue, financing penetration, product-level gross margin, or separate subscription revenue. The segment model therefore cannot be a full subscriber cohort model.]

8. Forward Growth Assumptions

Every forward case compounds from the FY2025/TTM revenue base of $2.144 billion for exactly five calendar years to 2030-12-31. Because product-level revenue is not disclosed, the one modeled product line is the reportable Vivint Smart Home segment. The segment's actual clean-period revenue CAGR was 16.2% from FY2023 to FY2025, but the latest YoY growth was 7.7%. The latest YoY rate is the more important forward anchor because the acquisition-year comparison period is now behind NRG.

Base-Case Revenue Growth

Product	Clean-period historical CAGR	Latest YoY	Mgmt FY+1 guide	Base CAGR TTM to TTM+5y	Justification
Vivint Smart Home segment	16.2% over FY2023-FY2025 clean period	7.7%	No numeric FY+1 segment guide; management cited 90% retention, record customer adds, and higher monthly recurring service margin per customer	6.0%	Base growth is below latest YoY but still solid because retention and new customer adds remain healthy. The deceleration reflects market maturity, professional-install acquisition cost, competition from ADT/DIY/self-monitoring, and lack of disclosed product-level acceleration.

Base-case revenue path:

Year	Revenue	YoY growth	Notes
TTM 2025	$2.144B	7.7% FY2025 YoY	Data-package anchor
2026	$2.281B	6.4%	Retention remains high; new additions normalize after "record" 2025 commentary
2027	$2.420B	6.1%	Pricing and service margin support growth, but DIY alternatives pressure new adds
2028	$2.564B	5.9%	Energy cross-sell helps retention but remains undisclosed as a separate revenue line
2029	$2.716B	5.9%	Installed-base growth increasingly drives the segment
2030	$2.870B	5.7%	Five-year CAGR rounds to 6.0%

Bull-Case Revenue Growth

Product	Clean-period historical CAGR	Latest YoY	Mgmt FY+1 guide	Bull CAGR TTM to TTM+5y	Justification
Vivint Smart Home segment	16.2% over FY2023-FY2025 clean period	7.7%	No numeric FY+1 segment guide; positive retention/customer-add/service-margin commentary	8.5%	Bull growth assumes the FY2025 customer-add momentum persists, NRG attaches more energy and connected-home value to Vivint accounts, and pricing improves without raising churn. The case is still below the clean-period CAGR because product-level acceleration is not disclosed.

Bull-case revenue path:

Year	Revenue	YoY growth	Notes
TTM 2025	$2.144B	7.7%	Data-package anchor
2026	$2.330B	8.7%	Strong account growth and pricing
2027	$2.532B	8.7%	Cross-sell and lower churn support compounding
2028	$2.748B	8.5%	Energy orchestration begins to support customer value
2029	$2.983B	8.5%	Professional-install model sustains premium positioning
2030	$3.224B	8.1%	Five-year CAGR rounds to 8.5%

Bear-Case Revenue Growth

Product	Clean-period historical CAGR	Latest YoY	Mgmt FY+1 guide	Bear CAGR TTM to TTM+5y	Justification
Vivint Smart Home segment	16.2% over FY2023-FY2025 clean period	7.7%	No numeric FY+1 segment guide; qualitative retention/add commentary only	3.0%	Bear growth assumes DIY/self-monitoring, ADT pricing, technology bundles, customer financing pressure, and weaker housing/move activity reduce new additions and limit price increases. Retention protects the base, so the case does not assume outright revenue decline.

Bear-case revenue path:

Year	Revenue	YoY growth	Notes
TTM 2025	$2.144B	7.7%	Data-package anchor
2026	$2.215B	3.3%	New additions slow; retention prevents sharp decline
2027	$2.283B	3.1%	Price competition offsets some service-margin gains
2028	$2.351B	3.0%	DIY/self-monitoring weighs on gross additions
2029	$2.419B	2.9%	Existing base remains but premium attach weakens
2030	$2.485B	2.7%	Five-year CAGR rounds to 3.0%

The base case is intentionally close to but below the latest FY2025 YoY growth rate. A sharper deceleration would require evidence that retention broke, new additions reversed, or pricing became structurally impaired. A higher base case would require product-level revenue disclosure, subscriber growth, ARPU expansion, or a quantified energy cross-sell/VPP contribution. None of those are in the verified data package.

9. Forward Operating Margin Assumptions

The margin anchor is FY2025 GAAP operating margin of 2.5%, calculated from $0.053 billion of GAAP operating income on $2.144 billion of revenue. Adjusted EBITDA margin was roughly 50.9%, but it is not the same as operating margin and should

not be used as the segment OI margin in the ER2 synthesis. The margin bridge is mainly about how much of Vivint's recurring-service economics can become GAAP operating income as revenue scales and amortization becomes less burdensome relative to the account base.

Case	Current OI margin	TTM+5y OI margin	Mechanism
Bear	2.5%	2.0%	Pricing pressure, higher customer acquisition cost, payment/default risk, and technology refresh costs offset recurring-service margin gains. Retention keeps revenue stable, but GAAP OI does not scale.
Base	2.5%	4.0%	Service margin per customer improves, revenue scales against fixed monitoring/customer-care infrastructure, and acquisition-related amortization becomes less punitive relative to revenue. Margin remains far below adjusted EBITDA.
Bull	2.5%	6.0%	Strong retention, pricing, energy-adjacent attach, and disciplined customer acquisition allow more recurring service economics to flow through GAAP OI. The case still avoids treating adjusted EBITDA as operating income.

The base-case 150 bp expansion from 2.5% to 4.0% is meaningful but not heroic. It assumes that the Q4 management reference to monthly recurring service margin per customer is an actual operating trend, not just a temporary mix benefit. It also assumes no major step-up in amortization or customer acquisition inefficiency. A 4.0% GAAP operating margin on a segment with about 51% adjusted EBITDA margin may look low, but that conservatism is deliberate. Vivint's reported FY2025 GAAP operating income was only $53 million despite over $1 billion of adjusted EBITDA. The ER2 model needs reported operating income, and the segment has not yet shown a stable high-single-digit GAAP margin inside NRG.

The bear-case margin of 2.0% is below the FY2025 level but still positive. This assumes the recurring base remains profitable, while new-account economics and competitive pricing prevent leverage. The bear case could be worse if churn rose materially, but the data package's 90% retention reference makes a negative operating margin too punitive absent new evidence. ADT's 2025 attrition increase is a warning, not a direct Vivint datapoint.

The bull-case margin of 6.0% is near Vivint's FY2024 GAAP margin of 6.2%, but applied to a much larger 2030 revenue base. This is the highest case the verified data can support without importing adjusted EBITDA economics into GAAP operating income. It assumes amortization burden moderates, service-margin gains continue, and energy-adjacent cross-sell improves account value. It does not assume a software-company margin profile.

10. Segment Rollup

Because NRG does not disclose Vivint product-level revenue, the segment rollup is the modeled product line. The arithmetic is therefore direct: segment revenue equals the one product line revenue, blended operating margin equals the scenario margin, and operating income equals revenue times margin. All endpoint values are for 2030-12-31, exactly five calendar years after the 2025-12-31 TTM anchor.

Case	TTM revenue base	Revenue CAGR	TTM+5y revenue	TTM+5y op margin	TTM+5y op income	Arithmetic
Bear	$2.144B	3.0%	$2.485B	2.0%	$0.050B	$2.144B x 1.03^5 = $2.485B; $2.485B x 2.0% = $0.050B
Base	$2.144B	6.0%	$2.870B	4.0%	$0.115B	$2.144B x 1.06^5 = $2.870B; $2.870B x 4.0% = $0.115B
Bull	$2.144B	8.5%	$3.224B	6.0%	$0.193B	$2.144B x 1.085^5 = $3.224B; $3.224B x 6.0% = $0.193B

The segment will not drive NRG's consolidated operating income in the same way Texas, East or post-LS Power generation/capacity exposures might. At the FY2025 TTM anchor, Vivint represented 7.0% of consolidated revenue but only $53 million of GAAP operating income. In the base case, Vivint adds roughly $817 million of revenue by 2030 and roughly $62 million of operating income relative to FY2025. That is strategically useful but not thesis-defining by itself. The more important

contribution may be qualitative: recurring customer relationships, energy orchestration optionality, and a less commodity-sensitive earnings stream.

The sensitivity is mostly margin, not just revenue. Bear revenue of $2.485 billion at a 2.0% margin produces about $50 million of OI, essentially flat versus FY2025. Bull revenue of $3.224 billion at a 6.0% margin produces about $193 million of OI, more than tripling FY2025 OI. The revenue difference between bear and bull is $739 million, but the OI difference is $143 million because the margin assumption compounds the effect. Therefore, the ER2 synthesis should treat Vivint's segment model as a margin-conversion question: can the company turn high adjusted EBITDA into reported operating income as amortization and acquisition costs normalize?

Summary probability table:

Case	Segment TTM+5y Revenue	Segment TTM+5y Op Margin	Segment TTM+5y Op Income	Probability
Bear	$2.485B	2.0%	$0.050B	30%
Base	$2.870B	4.0%	$0.115B	50%
Bull	$3.224B	6.0%	$0.193B	20%

Probability-weighted 2030 operating income is approximately $0.109 billion: 30% x $0.050B plus 50% x $0.115B plus 20% x $0.193B. This is close to the base case because the bear case is flat rather than catastrophic and the bull case is capped by GAAP margin conservatism.

11. Key Risks And Wildcards

- Bear risk: DIY and self-monitoring substitution. Ring, Google Nest, SimpliSafe, cable/telecom bundles and Matter-compatible devices can make the entry-level security job cheaper and easier to switch. If consumers view monitored service as optional, Vivint's gross additions and pricing power weaken.

- Bear risk: customer acquisition cost and payback. Professional installation creates upfront cost. If sales costs rise, installation labor tightens, customer financing becomes less attractive, or payment defaults increase, revenue growth can look healthy while value creation falls. This is the biggest hidden risk because NRG does not disclose Vivint subscriber acquisition cost or payback.

- Bear/base risk: GAAP amortization burden. The segment's FY2025 adjusted EBITDA was $1.092 billion, but GAAP operating income was only $0.053 billion. If amortization, depreciation, customer-account accounting and related acquisition-cost effects persist, the segment can remain a high-EBITDA, low-OI asset throughout the forecast period.

- Base risk: retention normalizes below the quoted 90% level. A 90% retention reference supports durability, but it is a point-in-time management/IR disclosure, not a long historical churn table. ADT's 2025 attrition disclosure shows that monitored-security attrition can worsen from non-payment and voluntary disconnects.

- Bull wildcard: NRG energy cross-sell and VPP integration. Vivint's connected-home footprint could become more valuable if NRG ties it to thermostats, demand response, home energy management, backup power, and retail energy retention. The data package does not disclose Vivint-specific VPP revenue, so this remains upside optionality rather than base-case product revenue.

- Bull wildcard: service margin per customer. The Q4 data-package quote on monthly recurring service margin per customer is the most important positive margin signal. If that reflects durable pricing, lower servicing cost, better feature attach, or improved customer mix, GAAP operating margin could move back toward the FY2024 level by 2030.

- Bear/base risk: technology and cybersecurity trust. A monitored smart-home platform depends on customer trust, app reliability, device reliability, privacy, and emergency-response continuity. A security breach, prolonged outage, false-alarm problem, or device obsolescence cycle could hurt both retention and new additions.

- Data-gap risk: product-level disclosure. The segment is modeled as a single line because NRG does not disclose separate subscription, equipment, installation, financing, or energy-adjacent revenue. That is adequate for segment

synthesis, but it limits conviction in the exact margin path. Future 10-Q/10-K disclosure should be checked for any new Vivint KPIs after Q1 2026 and post-LS Power taxonomy updates.

Final segment judgment: Vivint is a valuable recurring-revenue asset inside NRG, but it is not yet a high-GAAP-margin earnings engine. The segment has enough retention and service-margin evidence to support mid-single-digit base revenue growth and modest GAAP margin expansion. The investment case should not give Vivint full credit for its adjusted EBITDA unless and until the company demonstrates that more of that EBITDA converts into reported operating income and free cash flow after customer acquisition, amortization and service costs.

Appendix S - Synthesis (Combined Earnings Model)

NRG Energy, Inc. - Synthesis (Combined Earnings Model)

Prepared for ER2 Production Mode. Today is 2026-04-30. The company is NRG Energy, Inc. and the ticker is NRG. This appendix combines the reviewed segment appendices into one TTM+5y earnings model, with the horizon fixed at 2030-12-31 and the compounding span fixed at exactly 5.0 calendar years from the TTM end date of 2025-12-31.

The conclusion is arithmetic-led. NRG has real operating earnings upside in the base case, driven mainly by Texas and East, but the current stock price of $149.01 already requires roughly $9.93 of TTM+5y EPS to pass the P/E <= 15 test. The base case reaches only $7.29 of EPS after explicit interest, tax, preferred-distribution and share-count assumptions. Base-case EPS times 15 is $109.31, or 26.6% below the current price. The bull case clears the P/E test, but the ER2 decision rule uses the base case as the confident case. Therefore the P/E 15 gate is a FAIL in this synthesis.

1. Anchors

Item	Anchor
Today	2026-04-30
Fiscal year end	December 31
TTM anchor	Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025
TTM end date	2025-12-31
Latest completed FY label	FY2025
Horizon date	2030-12-31
Compounding span	exactly 5.0 calendar years
Current price	$149.01
TTM diluted weighted average shares	199 million
Common shares outstanding at 2025-12-31	190.376607 million

The data package and quantitative foundation state that TTM equals FY2025 because Q4/FY2025 is the latest reported quarter as of 2026-04-30. Consolidated FY2025 revenue was $30.713 billion, operating income was $1.845 billion, net income was $0.864 billion, diluted EPS was $4.01, and diluted weighted average shares were 199 million. The segment base also ties: Texas revenue $11.139 billion and operating income $1.113 billion; East revenue $14.263 billion and operating income $0.706 billion; West/Other revenue $3.202 billion and operating income $0.149 billion; Vivint Smart Home revenue $2.144 billion and operating income $0.053 billion; Corporate operating expense $(0.176) billion; and eliminations $(0.035) billion of revenue.

The share-count starting point for the forward model is common shares outstanding, not diluted weighted average shares, because the model explicitly retires shares through buybacks and adds back estimated SBC issuance. Diluted weighted average shares remain the historical EPS tie-out anchor, while 190.376607 million is the correct starting balance sheet count for the forward share path.

2. Segment-Level Forward Assumptions

The table below reproduces the reviewed segment endpoints. These are not re-underwritten in this synthesis. They are carried forward from the four reviewed segment appendices and used as the bottoms-up revenue and operating income inputs.

Segment	TTM revenue	Bear TTM+5y rev	Base TTM+5y rev	Bull TTM+5y rev	Bear OI margin	Base OI margin	Bull OI margin	Source
Texas	$11.139B	$11.420B	$13.230B	$14.558B	7.5%	11.5%	13.5%	appendix_B_texas.md Sections 8-10
East	$14.263B	$14.991B	$16.137B	$17.774B	3.8%	6.2%	8.0%	appendix_B_east.md Sections 8-10
West/Other	$3.202B	$2.750B	$3.283B	$3.535B	2.0%	5.2%	7.0%	appendix_B_west_other.md Sections 8-10

Segment	TTM revenue	Bear TTM+5y rev	Base TTM+5y rev	Bull TTM+5y rev	Bear OI margin	Base OI margin	Bull OI margin	Source
Vivint Smart Home	$2.144B	$2.485B	$2.870B	$3.224B	2.0%	4.0%	6.0%	appendix_B_vivint_smart_home.md Sections 8-10

The segment appendices intentionally model each reportable segment as one dollar-disclosed line because NRG does not disclose product-level dollars below the four reportable segments. This is not a weakness introduced by the synthesis; it is an issuer disclosure limitation carried consistently through the work. The product-to-segment rollups therefore tie by construction for each segment, with data-gap language retained in the segment appendices.

3. Combined Revenue Build

Line	Bear	Base	Bull
Texas	$11.420B	$13.230B	$14.558B
East	$14.991B	$16.137B	$17.774B
West/Other	$2.750B	$3.283B	$3.535B
Vivint Smart Home	$2.485B	$2.870B	$3.224B
Sum of segment TTM+5y revenue	$31.646B	$35.520B	$39.091B
Corporate eliminations	$(0.035)B	$(0.035)B	$(0.035)B
Combined TTM+5y revenue	$31.611B	$35.485B	$39.056B
Implied TTM to TTM+5y CAGR	0.6%	2.9%	4.9%

The revenue build holds the FY2025 elimination of $35 million flat. The data package shows FY2025 FMP gross segment revenue of $30.748 billion and official consolidated revenue of $30.713 billion after $(0.035) billion of eliminations. There is no source for a forward elimination growth rate, and the number is immaterial relative to consolidated revenue, so the conservative treatment is to carry it forward unchanged.

The base case is not an aggressive top-line model. The combined base revenue CAGR of 2.9% is modest relative to management's adjusted EPS growth language, and it is materially below the bull case. It reflects Texas growing 3.5% annually, East 2.5%, West/Other 0.5%, and Vivint 6.0%. The base model is also not rescued by LS Power as a separately modeled new segment because the reviewed inputs have not yet received a full post-close 10-Q taxonomy as of 2026-04-30.

4. Combined Operating Income Build

Line	Bear	Base	Bull
Texas operating income	$0.856B	$1.521B	$1.965B
East operating income	$0.570B	$1.001B	$1.422B
West/Other operating income	$0.055B	$0.171B	$0.247B
Vivint Smart Home operating income	$0.050B	$0.115B	$0.193B
Sum of segment TTM+5y OI	$1.531B	$2.808B	$3.827B
Unallocated corporate expense	$(0.199)B	$(0.199)B	$(0.199)B
Combined TTM+5y OI	$1.332B	$2.609B	$3.628B
Implied OI margin	4.2%	7.4%	9.3%

Corporate expense starts from the FY2025 Corporate operating loss of $(0.176) billion in the data package and grows at 2.5% per year for five years, producing a 2030 cost of $(0.199) billion. This is deliberately simple. It recognizes inflation and public-company overhead, but it does not add a large synergy credit from LS Power or assume the Corporate line becomes a hidden profit center.

The base case improves consolidated operating income from $1.845 billion in FY2025 to $2.609 billion in 2030. That is a 7.2% operating income CAGR before interest, tax, preferred distributions and share count. The gap between 2.9% revenue growth and 7.2% operating income growth is caused by margin recovery in Texas and East, a cleaner West/Other base, and modest Vivint GAAP margin improvement. This operating leverage is meaningful but still not enough to clear the valuation bar after financing costs.

5. Net Income And EPS Build

Line	Bear	Base	Bull
Combined TTM+5y OI	$1.332B	$2.609B	$3.628B
Net interest expense	$(0.950)B	$(0.850)B	$(0.750)B
Other income / expense	$0.000B	$0.000B	$0.000B
Pre-tax income	$0.382B	$1.759B	$2.878B
Tax rate assumed	23.0%	23.0%	23.0%
Net income	$0.294B	$1.354B	$2.216B
Preferred/common-income deduction	$(0.067)B	$(0.067)B	$(0.067)B
Net income available to common	$0.227B	$1.287B	$2.149B
Diluted share count at TTM+5y	176.7M	176.7M	176.7M
EPS at TTM+5y	$1.29	$7.29	$12.16

The net interest assumption is the key below-the-line burden. FY2025 FMP annual income statement data shows $0.772 billion of interest expense, $1.078 billion of pre-tax income, and $0.214 billion of income tax expense. The balance sheet carried $16.766 billion of FMP total debt and $12.028 billion of net debt at 2025-12-31, with LS Power financing in the capital structure. The model uses net interest expense of $(0.950) billion in bear, $(0.850) billion in base, and $(0.750) billion in bull. That range assumes the balance sheet remains more levered than the pre-LS Power period, but that base/bull free cash flow and EBITDA growth allow some refinancing, debt paydown, or cash-interest offset.

The tax rate is 23.0% in all cases. FY2025's effective tax rate was 19.9%, FY2024 was 22.3%, FY2022 was 26.6%, and FY2021 was 23.5%. A 23.0% forward rate is therefore a normalized middle assumption rather than a current-year low. The model also subtracts $0.067 billion before calculating common EPS, matching the FY2025 gap between net income of $0.864 billion and net income available to common of $0.797 billion.

6. Share Count Path

The forward share count is explicit. It starts from common shares outstanding of 190.376607 million at 2025-12-31. The base path assumes $0.600 billion of annual buybacks, or $3.000 billion over five years, consistent with the October 2025 $3 billion authorization through 2028 and below the FY2023-FY2025 average annual buyback spend of about $1.170 billion. This is conservative relative to recent capital return, because the company is also absorbing LS Power and elevated leverage.

SBC issuance is estimated from FY2025 stock-based compensation of $134 million divided by the current share price of $149.01, or about 0.9 million shares per year. That issuance is added each year. Buyback prices are stepped up from $155 in 2026 to $175 in 2030 to avoid assuming that NRG retires all shares at today's price.

Year	Starting share count	Buyback	Avg price assumed	Shares retired	SBC issuance	Ending share count
2026	190.377M	$0.600B	$155	3.871M	0.900M	187.406M
2027	187.406M	$0.600B	$160	3.750M	0.900M	184.556M
2028	184.556M	$0.600B	$165	3.636M	0.900M	181.819M
2029	181.819M	$0.600B	$170	3.529M	0.900M	179.190M
2030	179.190M	$0.600B	$175	3.429M	0.900M	176.661M

The tie is: 190.376607 million starting shares minus 18.215 million retired shares plus 4.500 million SBC shares equals 176.661 million ending shares. This path is not a shortcut that assumes buybacks maintain EPS. It models the dollar spend, the price paid, and the offsetting issuance.

7. P/E 15 Test

Required EPS at the current price is $149.01 divided by 15, or $9.93. The base case earns $7.29, so the base case fails. The bull case earns $12.16 and would pass, but the bull case cannot rescue a failed base case under this ER2 framework.

Case	EPS at TTM+5y	EPS x 15	Current price	Cushion	Pass?
Bear	$1.29	$19.28	$149.01	(87.1)%	Fail
Base	$7.29	$109.31	$149.01	(26.6)%	Fail

Case	EPS at TTM+5y	EPS x 15	Current price	Cushion	Pass?
Bull	$12.16	$182.46	$149.01	22.5%	Pass

The base case would need an additional $2.65 of EPS to pass the bar. At the modeled share count, that is roughly $0.468 billion of additional net income available to common. Grossed up for a 23% tax rate, the missing pre-tax income is about $0.608 billion. That is a large gap relative to the base operating income estimate and cannot be waved away with rounding.

There are three realistic ways for the company to close that gap, and none should be treated as the base case today. First, consolidated operating income could exceed the modeled base by more than $0.6 billion. That would most likely require East and Texas to deliver closer to bull-case margins at the same time, or require LS Power to add a material and cleanly disclosed earnings layer without adding a proportionate interest burden. The reviewed segment appendices do not support that as the confident case yet. Second, net interest could fall far below the base estimate. That would require either faster deleveraging, refinancing at meaningfully better rates, or cash balances earning enough to offset debt cost. The FY2025 balance sheet does not justify that as a default assumption after the LS Power financing. Third, the share count could fall much faster than modeled. NRG has a strong recent buyback record, but using buybacks to bridge the valuation gap would require either higher repurchase dollars, lower repurchase prices, or both. The base path already gives credit for $3.0 billion of buybacks and a reduction from 190.4 million outstanding shares to 176.7 million shares.

The P/E test therefore fails for an economic reason, not because the model omits normal capital return. The synthesis gives NRG credit for margin recovery, for sustained buybacks, for Vivint's recurring-revenue contribution, and for some easing of financing pressure relative to the bear case. Even with those credits, the current share price asks the base case to be closer to the bull case than the evidence supports.

8. Reflexivity Check

The anchor ties before the forecast begins. Gross FY2025 segment revenue is $30.748 billion: Texas $11.139 billion plus East $14.263 billion plus West/Other $3.202 billion plus Vivint $2.144 billion. After $(0.035) billion of eliminations, the total is $30.713 billion, exactly matching consolidated revenue in the data package and quantitative foundation.

Segment operating income also ties. Texas $1.113 billion plus East $0.706 billion plus West/Other $0.149 billion plus Vivint $0.053 billion equals $2.021 billion of segment operating income. Subtracting Corporate expense of $(0.176) billion gives consolidated operating income of $1.845 billion. This matches the official FY2025 control value. The FY2025 and TTM tie-outs are the same because TTM equals FY2025.

No in-progress FY adjustment is used. Stage 0 anchors the model at the completed FY2025 period. Q1 2026 was scheduled for 2026-05-06 and was not reported as of 2026-04-30, so there is no in-progress FY reconciliation to perform. The most recent quarterly trend is instead used as a recency sanity check: the base first-forward-year revenue run-rate is $31.604 billion, only 2.9% above the FY2025 TTM revenue base of $30.713 billion.

9. Sensitivity

Sensitivity	Downside EPS	Base EPS	Upside EPS	EPS impact
Texas revenue CAGR +/- 200 bps, margin held at 11.5%	$6.67	$7.29	$7.95	$(0.62) / +$0.67
East OI margin +/- 200 bps, revenue held at base	$5.88	$7.29	$8.69	$(1.41) / +$1.41
Share count +/- 5%, NI held at base	$6.94	$7.29	$7.67	$(0.35) / +$0.38
Tax rate +/- 300 bps, pre-tax held at base	$6.99	$7.29	$7.59	$(0.30) / +$0.30

East margin is the largest modeled driver among the listed sensitivities. A 200 bp change in East margin changes EPS by about $1.41, because East is the largest revenue segment and its base margin recovery from 5.0% to 6.2% is a central source of operating-income growth. Texas revenue CAGR matters, but less than East margin in this sensitivity because the Texas base margin is already higher and the revenue shock is partly absorbed by the five-year compounding math. Share count and tax rate matter, but neither closes the P/E gap on its own.

The implication for the main memo is straightforward: the key trigger is not merely revenue growth. The kill-or-confirm variable is whether Texas and East margin recovery survives high interest expense and post-LS Power leverage. If East margin is only

4.2% rather than 6.2%, the stock is far from the P/E 15 bar. If East margin reaches 8.2%, the base case still only moves to $8.69 of EPS, short of the $9.93 requirement.

The sensitivity table also explains why the synthesis should not over-focus on Vivint. Vivint is strategically valuable because it provides recurring consumer revenue, customer relationships, and connected-home optionality, but its GAAP operating income remains small in the combined model. Moving Vivint's margin by several hundred basis points would not change the valuation verdict unless the move were accompanied by a larger energy-platform benefit that appears in Texas or East. The same is true for West/Other. A cleaner West/Other portfolio helps, and the reviewer correction on FY2025 GAAP operating income is included, but West/Other is too small to rescue the P/E test.

The practical monitoring list is therefore narrow. The next model update should focus on post-LS Power segment reporting, East capacity and retail cost-to-serve margins, Texas large-load contract economics, interest expense run-rate, and the pace and average price of actual repurchases. If those items move favorably at the same time, the base case can be raised. If one or two move favorably while the financing burden remains high, the P/E gate is still likely to remain below the ER2 threshold.

10. Combined Earnings Summary

Case	Revenue	OI	OI margin	NI to common	EPS	Probability	EPS x 15	vs. $149.01
Bear	$31.611B	$1.332B	4.2%	$0.227B	$1.29	25%	$19.28	(87.1)%
Base	$35.485B	$2.609B	7.4%	$1.287B	$7.29	55%	$109.31	(26.6)%
Bull	$39.056B	$3.628B	9.3%	$2.149B	$12.16	20%	$182.46	22.5%
Probability-weighted EPS	n/a	n/a	n/a	n/a	$6.83	100%	$102.44	(31.3)%

The probability weights are 25% bear, 55% base, and 20% bull. They lean toward base because the segment reviewers found no arithmetic breaks and both management and moat gates are YELLOW rather than FAIL, but the bull weight is capped because LS Power integration, leverage, post-close segment taxonomy, East margin volatility, and data-center revenue disclosure remain unresolved.

The weighted EPS result is not the gate, but it is useful context. Probability-weighted EPS of $6.83 is lower than base EPS because the bear case is severe and the bull case receives only a 20% weight. That is appropriate for NRG's risk shape. The company has upside from integrated power, data-center demand, CPower, Texas Energy Fund projects, Vivint retention and buybacks, but the downside is not a mild low-growth software downside. It includes commodity exposure, weather, plant availability, political pressure on capacity prices, collateral and liquidity stress, and financing costs. A probability-weighted value below the base-case value is therefore directionally right.

This also means the investment decision should not be framed as "NRG can grow EPS." The base model already says EPS can grow materially from FY2025. The decision is whether the growth is durable and underpriced. At $149.01, the required base-case EPS is high enough that normal improvement is insufficient. The stock needs either a better-than-base operating outcome or a lower entry price to become a P/E 15 pass.

11. Tie-Out Checks

- Reported-financial tie-out: PASS. FY2025/TTM gross segment revenue of $30.748 billion minus $0.035 billion eliminations equals $30.713 billion consolidated revenue. Segment OI of $2.021 billion minus $0.176 billion Corporate expense equals $1.845 billion consolidated OI. Because TTM equals FY2025, the TTM and latest completed FY checks both pass within 2%.

- NI / shares = EPS: PASS. Bear $0.227 billion common NI / 176.661 million shares = $1.29. Base $1.287 billion / 176.661 million = $7.29. Bull $2.149 billion / 176.661 million = $12.16. Differences are rounding only.

- Segment sum tie-out at horizon: PASS. Bear combined revenue of $31.611 billion equals $31.646 billion segment revenue less $0.035 billion eliminations, a 0.1% gap to gross segment sum. Base is $35.485 billion versus $35.520 billion gross, also 0.1%. Bull is $39.056 billion versus $39.091 billion gross, also 0.1%. The named gap is Corporate eliminations.

- Product-to-segment rollup: PASS. Each segment appendix states that product dollars are not disclosed below the reportable segment, so the rollup uses one disclosed segment line. Texas, East, West/Other and Vivint all tie within 1% by construction and disclose the data gap.

- Weighted margin check: PASS. No segment has a disclosed multi-product dollar and margin table. Each reportable segment uses one modeled product/segment line, so segment operating margin equals the revenue-weighted margin within 1% by construction.

- Share count path: PASS. Starting shares of 190.376607 million minus five years of modeled buyback retirements of 18.215 million plus five years of SBC issuance of 4.500 million equals 176.661 million ending shares. The span is exactly five years.

- Growth plausibility: PASS with disclosed caveats. Texas base CAGR of 3.5% does not exceed 1.2x its disclosed 3-year CAGR. Vivint base CAGR of 6.0% is below 1.2x its clean-period historical CAGR. East and West/Other exceed their depressed or negative historical CAGRs, but both segment appendices explicitly justify the assumptions with recent rebound, capacity-market context, portfolio cleanup, and conservative endpoint math.

- Historical arithmetic: PASS. Texas $11.139 billion x 1.035^5 = $13.230 billion. East $14.263 billion x 1.025^5 = $16.137 billion. West/Other $3.202 billion x 1.005^5 = $3.283 billion. Vivint $2.144 billion x 1.06^5 = $2.870 billion. Bear and bull cases similarly reproduce the reviewed segment endpoints within 1%.

- Recency anchor: PASS. Base first-forward-year revenue is $31.604 billion after the same $0.035 billion elimination, only 2.9% above FY2025/TTM revenue of $30.713 billion and within the 10% recency threshold.

- P/E 15 arithmetic: PASS as arithmetic, FAIL as investment gate. Required EPS is $149.01 / 15 = $9.93. Base EPS is $7.29, giving EPS x 15 of $109.31 and a (26.6)% cushion. The model therefore fails the base-case P/E 15 gate.

- Probability-weighted summary: PASS. Probability weights sum to 100%. Weighted EPS is 25% x $1.29 plus 55% x $7.29 plus 20% x $12.16 = $6.83, and weighted EPS x 15 is $102.44, or 31.3% below the current price.

Key Findings For Main Memo

The base case is a better business outcome than FY2025 but not a cheap-stock outcome at $149.01. Base revenue reaches $35.485 billion, operating income reaches $2.609 billion, and net income available to common reaches $1.287 billion. EPS of $7.29 is materially higher than FY2025 diluted EPS of $4.01, but it is still too low for the P/E 15 test.

The valuation failure is not caused by one exotic assumption. It comes from the interaction of three ordinary factors: only moderate consolidated revenue growth, still-cyclical operating margins, and higher post-LS Power financing costs. Even $3.0 billion of modeled buybacks over five years does not offset those burdens enough to produce $9.93 of base-case EPS.

The bull case is real but not controlling. Bull EPS of $12.16 would support a P/E 15 value of $182.46, 22.5% above the current price, but that outcome requires stronger Texas/East margins, lower interest expense, and cleaner integration than the base case can confidently assume today. Since both the management gate and moat gate are YELLOW, the synthesis should not promote the bull case to the decision case.

The variable most worth tracking is East and Texas margin quality after LS Power closes into reported results. East margin sensitivity is especially powerful: a +/- 200 bp move changes EPS by about +/- $1.41. The first post-close segment report should be treated as a trigger event for updating this appendix.

For now, the synthesis verdict is quantitatively strict: base-case business progress, base-case valuation fail. NRG is not screened out because the business is broken. It is screened out because the stock price gives too much credit today for outcomes that remain in the bull or upper-base range. The model should be revisited after Q1 2026 and the first cleaner post-LS Power disclosures, especially if interest expense, segment allocation, or buyback pacing differs materially from the assumptions used here.

Appendix CS - Compounder Score

NRG Energy, Inc. - Compounder Score

Analysis date: 2026-05-28. Company: NRG Energy, Inc. Ticker: NRG. Exchange: NYSE. Currency: USD. Fiscal year end: December 31. This score is diagnostic only and is not an ER2 gate.

1. Executive Verdict

The evidence does not support NRG as a clean compounder under the CompounderScorer rubric. The company has real assets: Texas retail/generation scale, Vivint recurring smart-home economics, CPower/VPP optionality, data-center power demand, and an improved capital-return record. But consolidated economics are still volatile, leverage is elevated after LS Power funding, GAAP FCF conversion is uneven, and the current price does not underwrite a 20% annualized return without a much stronger-than-base operating outcome.

Final score: **42/100**. Business Quality: **36/80**. 20% Return Underwriting: **6/20**. Score-implied classification: **Reject**.

2. Data Source Map

Evidence item	Source used	Confidence	Notes
Price / market cap	Live market quote on 2026-05-28; local QF quote as April 2026 cross-check	Medium	Live price used for current valuation: $137.93. Local ER2 anchor was $149.01 and $31.971B market cap.
Enterprise value	Live market cap plus QF/FMP FY2025 net debt	Medium	Current EV estimated at $40.717B using $28.689B market cap plus $12.028B FY2025 net debt.
Income statement	`quant_foundation.md`, `data_package.md`, FMP annual live pulls in `raw_D`	High	FY2025 revenue $30.713B, operating income $1.845B, net income $0.864B.
Balance sheet	`quant_foundation.md`, `data_package.md`, FMP annual live pulls	High	FY2025 total debt $16.766B, net debt $12.028B, goodwill plus intangibles $7.326B.
Cash flow	`quant_foundation.md`, `data_package.md`, FMP annual live pulls	High	FY2025 CFO $1.913B, capex $(1.147)B, GAAP-style FCF $0.766B, FCF before growth investments $2.210B.
Share count	`quant_foundation.md`, `appendix_synthesis.md`	High	FY2025 diluted average shares 199M; 190.376607M common shares outstanding at 2025-12-31.
SBC	`appendix_synthesis.md`, FMP cash-flow pull	Medium	FY2025 SBC $134M; modeled as about 0.9M shares/year at $149.01 in synthesis.
Segment data	`quant_foundation.md`, `data_package.md`, segment appendices	High	FY2025 segment revenue/profit and EBITDA tie to official release and 10-K.
Management / capital allocation	`appendix_management.md`, `data_package.md`	Medium-high	Management gate YELLOW; buybacks strong; LS Power/CPower proof still pending.
Moat / durability	`appendix_moat.md`, segment appendices	Medium	Moat gate YELLOW in appendix; main memo marks moat FAIL under ER2 gate discipline.
TAM / competitors	`appendix_moat.md`, segment appendices	Medium	PJM/ERCOT/data-center context is useful but not a disclosed product-dollar runway.

3. Key Financial and Quality Metrics

Metric	Result	Interpretation
FY2025 revenue	$30.713B	Official/QF controlling value.
FY2025 operating income	$1.845B	Consolidated margin 6.0%; volatile historically.
FY2025 normalized NOPAT	$1.421B	EBIT $1.845B x (1 - 23.0% normalized tax).

Metric	Result	Interpretation
5-year simple ROIC median	~17%	Based on NOPAT / FMP invested capital; FMP quoted ROIC median is lower at ~9%.
3-year ROIIC	Negative / not meaningful	2022 to 2025 NOPAT declined despite large reinvestment and acquisitions.
Acquisition-inclusive 5-year ROIIC	~9-10%	Approximate; capped by Vivint/LS Power timing and incomplete post-close data.
FY2025 GAAP-style FCF conversion	54% of NOPAT	$0.766B FCF / $1.421B NOPAT.
FY2025 FCF before growth investments	155% of NOPAT	Useful but non-GAAP and not a substitute for CFO less capex.
FY2021-FY2025 diluted share CAGR	(5.1)%	Buybacks reduced diluted shares from 245M to 199M.
FY2025 SBC / revenue	0.4%	Low as a revenue percentage.
FY2025 SBC / GAAP-style FCF	17.5%	Material versus reported FCF.
Current EV / NOPAT	~28.7x	Uses live price and FY2025 net debt.
Current GAAP-style FCF yield	~2.7%	$0.766B FY2025 FCF / current market cap.
Net debt / EBITDA	3.16x	FY2025 FMP net debt / FMP EBITDA, before clean post-LS Power reporting.

4. Rubric Scorecard

Category	Score	Max	Rationale
Incremental returns on capital	8	25	ROIC is cyclically positive but not persistently high; ROIIC is unclear to weak after acquisition-inclusive reinvestment; FCF conversion is noisy.
Reinvestment runway	10	20	Power demand, VPP, data centers, Vivint and LS Power create runway, but product-level dollars and post-close segment economics are not yet disclosed.
Durability of moat	7	15	Texas and Vivint have real advantages, but most revenue sits in competitive, regulated and commodity-sensitive energy markets.
Accounting and financial quality	6	10	Source tie-outs are good and controls are clean, but adjusted metrics dominate the story and GAAP FCF can lag earnings.
Capital allocation discipline	5	10	Buybacks were good historically, but LS Power is large, levered, and not yet proven through reported post-close returns.
Price and 20% underwriting	6	20	Current price is below the April anchor, but base-case economics still do not support 20% annualized returns without terminal multiple expansion or bull-case execution.
Total	42	100	Diagnostic score implies Reject.

5. ROIIC and Reinvestment Analysis

The evidence supports only a conservative ROIIC score. FY2025 NOPAT was about $1.421B. A simple NOPAT / invested-capital calculation produces volatile returns: FY2021 was high, FY2023 was weak, FY2024 recovered, and FY2025 fell to high-single digits after LS Power financing sat in the capital structure. FMP's quoted ROIC series in the data package was 16.6%, 9.1%, 2.1%, 11.6%, and 7.0% for FY2021-FY2025.

The 3-year ROIIC is not investable evidence because NOPAT declined from FY2022 to FY2025 while cumulative capex, M&A and working-capital movements were material. The 5-year acquisition-inclusive ROIIC is only roughly high-single to low-double digits when cumulative acquisitions are treated as reinvestment. That is the right conservative treatment because Vivint and LS Power are central to the strategy. Unsupported high ROIIC gets insufficient evidence, not credit.

6. Runway Analysis

The positive runway is real: Texas data-center and reliability demand, PJM/ERCOT capacity tightness, CPower demand response, Texas Energy Fund projects, and Vivint's installed-device base can all create opportunities. The evidence does not yet prove a long runway at high incremental returns. NRG does not disclose product-level revenue for data centers, VPP, Vivint services, smart-home equipment, generation capacity, or CPower in the FY2025 base. The first clean post-LS Power 10-Q is still a required evidence point.

7. Moat Analysis

The moat is blended and conditional. Texas has the best scale and integrated retail/supply/generation evidence. Vivint has recurring service economics, high retention, installed hardware, and energy cross-sell optionality. East has capacity optionality but volatile margins and regulatory exposure. West/Other is weak. Consolidated operating margins from FY2021-FY2025 were 12.4%, 6.4%, 1.3%, 8.6%, and 6.0%, which is not the pattern of a wide, stable compounder moat.

8. Accounting and Capital Allocation Analysis

The source chain is unusually clean: QF passed 8/8 checks and reconciled official FY2025 revenue, operating income, net income, shares, CFO, capex, segment rollups, and liquidity. The caution is metric quality. NRG's FCF before growth investments is useful for internal capital allocation, but GAAP-style FCF was only $0.766B in FY2025 and was negative in FY2022 and FY2023. SBC is low versus revenue but meaningful versus GAAP-style FCF.

Capital allocation is mixed. The share count fell from 245M diluted shares in FY2021 to 199M in FY2025, and buybacks at lower prices were valuable. But the LS Power/CPower transaction added 13 GW of generation and a 6 GW C&I VPP platform with large cash, stock, and assumed-debt consideration. It may be strategically sound, but a skeptical scorer cannot award full acquisition discipline before post-close returns, leverage, maintenance capex, and integration economics are visible.

9. 20% Return Underwriting

The 20% case does not work under base-case evidence. The local synthesis model reaches 2030 base EPS of $7.29 and EPS x 15 value of $109.31, versus the April anchor price of $149.01. At the live 2026-05-28 price of about $137.93, that base terminal value plus an estimated five-year dividend stream of roughly $11 still implies a negative to low-single-digit annualized return, not 20%.

The bear case is severe: synthesis bear EPS is $1.29 and EPS x 15 is $19.28. The bull case reaches $12.16 of EPS and EPS x 15 of $182.46, but that is not enough for a 20% hurdle from the current price over five years after giving only normal dividends. A 20% annualized return from the current price would require terminal value plus dividends of roughly $343 per share in five years. That would require either much higher EPS, a materially higher multiple, or both.

Reverse DCF: at the current EV of roughly $40.7B and FY2025 NOPAT of roughly $1.42B, the current EV/NOPAT multiple is about 28.7x. If the exit multiple stayed flat, NOPAT would need to compound around 20% annually for enterprise value alone to compound at 20%. If the exit multiple normalized to 15x, required NOPAT CAGR would be roughly 37% over five years. The base operating-income CAGR in the synthesis is 7.2%, far below that hurdle.

10. Hard Veto Checklist

Veto	Status	Evidence
ROIIC below cost of capital with no credible path	Watch	ROIIC evidence is weak, but LS Power/VPP/data-center runway could improve returns.
ROIC high only because invested capital is tiny	Watch	Equity is small relative to assets and debt; goodwill-inclusive invested capital matters.
Growth requires persistent external financing	Watch	LS Power funding and elevated leverage raise the bar.
Share count rises materially	Pass	Share count declined meaningfully despite SBC.
Large acquisitions without disclosed returns	Watch	Vivint and LS Power are material; LS Power post-close returns not yet reported.
FCF consistently lags earnings structurally	Watch	GAAP-style FCF was weak in several years; FCFbG is non-GAAP.

Veto	Status	Evidence
Customer/regulatory/cyclicality/leverage impairment risk	Fail	Competitive energy markets, capacity-market politics, commodity exposure, and leverage can impair equity value.
20% return case requires multiple expansion	Fail	Base case does not clear 20%; bull case still needs unusually strong execution.
Needs flawless execution at today's price	Fail	Price embeds upper-base/bull outcomes.
Cannot explain moat in one paragraph	Pass	Moat is integrated retail/generation plus Vivint/CPower demand response, but conditional.
Accounting/governance trust impaired	Pass	No material restatement/control issue found; proxy caveats are manageable.
Balance sheet risk could wipe out holders	Watch	Not a near-term wipeout case, but leverage and collateral stress are real cyclical risks.

11. Final Decision

Score-implied classification: **Reject**. This is not because NRG lacks assets or earnings upside. It is because the compounder evidence is too mixed and the 20% underwriting case is not supported by the base-case model.

Compounder Score note: 42/100; NRG has pockets of quality but volatile ROIC/ROIIC, acquisition uncertainty, and inadequate 20% return support cap the diagnostic score.

Business Quality Score note: 36/80; Texas and Vivint help, but consolidated margins, GAAP FCF conversion, leverage, and post-LS Power evidence gaps keep quality below compounder level.

20% Return UW Score note: 6/20; even after the stock moved below the April ER2 anchor, base-case terminal value and dividends do not approach a 20% annualized return without bull-case execution or multiple expansion.

12. Machine-Readable JSON


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{
  "company": "NRG Energy, Inc.",
  "ticker": "NRG",
  "exchange": "NYSE",
  "analysis_date": "2026-05-28",
  "currency": "USD",
  "current_price": 137.93,
  "market_cap": 28689000000,
  "enterprise_value": 40717000000,
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  "business_quality_score_max": 80,
  "valuation_underwriting_score": 6,
  "valuation_underwriting_score_max": 20,
  "total_score": 42,
  "total_score_max": 100,
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  "bear_case_irr": -0.28,
  "bull_case_irr": 0.07,
  "max_buy_price_for_20pct_irr": 48.3,
  "scorecard_notes": {
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    "business_quality_score": "36/80; Texas and Vivint help, but consolidated margins, GAAP FCF conversion, leverage, a
    "twenty_percent_return_underwriting_score": "6/20; even after the stock moved below the April ER2 anchor, base-case
  }
}
```

Appendix CSA - Scoring Audit

NRG Energy, Inc. - Scoring Audit

Analysis date: 2026-05-28. Company: NRG Energy, Inc. Ticker: NRG. Currency: USD. This audit reviews `appendix_compounder_score.md` and `compounder_score.json` against the local ER2 source package. The original score is not a buy signal: it already classifies NRG as Reject. The audit therefore focuses on whether any residual points are still too generous.

1. Original vs Audited Scores

Item	Original	Audited	Notes
Business Quality Score / 80	36	33	Reduced for approximate ROIIC, acquisition-inclusive return uncertainty, management-led runway evidence, and weak GAAP FCF conversion.
Valuation / 20% Return UW Score / 20	6	3	Reduced because base-case IRR is below 10%, bear IRR is severe, and the 20% case needs a much higher terminal value than the base or bull model supports.
Total Score / 100	42	36	Reject remains the correct score-implied classification.
Classification	Reject	Reject	Below 70, hard vetoes present, and 20% return case does not work.

Original reconstructed score: Business Quality 36/80; Valuation / 20% Return Underwriting 6/20; Total 42/100; classification Reject. Original JSON reports base IRR (2.7)%, bear IRR (28.0)%, bull IRR 7.0%, and maximum buy price for a 20% IRR of $48.30. Markdown and JSON agree on the score, classification, IRRs, and buy price. No JSON-vs-markdown conflict was found.

Audited score: Business Quality 33/80; Valuation / 20% Return Underwriting 3/20; Total 36/100; classification Reject. Confidence is Medium because the verified local ER2 package is strong for FY2025 financials, share count, cash flow, segment revenue, and segment operating income, but still lacks clean post-LS Power reported segment economics and product-level dollar disclosures.

2. Score Reductions and Reasons

Incremental returns on capital is reduced from 8/25 to 7/25. The scorer correctly refused to award a high ROIIC score, but the 5-year acquisition-inclusive ROIIC is described as roughly 9-10% without a detailed bridge in the score appendix. The data package shows FMP ROIC of 16.6%, 9.1%, 2.1%, 11.6%, and 7.0% for FY2021-FY2025 and states FY2025 simple NOPAT/invested capital is about 9.1% while FMP reports 7.0%. That evidence supports positive but volatile returns, not a compounder-level return profile. Category 1B should receive only minimal credit because 3-year ROIIC is negative or not meaningful and acquisition-inclusive ROIIC is approximate.

Reinvestment runway is reduced from 10/20 to 9/20. The runway claims around data centers, VPP, CPower, LS Power, Texas Energy Fund projects, and Vivint are real strategic options, but the data package explicitly says there is no product-level dollar revenue for data centers, VPP, smart-home services, equipment, installation, generation capacity, or CPower in the FY2025 base. Runway evidence therefore rests partly on management commentary, MW targets, and strategic logic rather than reported segment-level return proof. Under the CSA cap, management-claim-heavy runway credit should stay near half points.

Durability of moat is kept at 7/15. The moat appendix is balanced and gives a YELLOW moat gate, not a clean pass. Texas and Vivint provide the best evidence, while East is cyclical, West/Other is weak, and consolidated margins are volatile. This score is not inflated.

Accounting and financial quality is reduced from 6/10 to 5/10. QF passed 8/8 checks and the source chain is clean, but economic cash quality is mixed. FY2025 FMP FCF was $0.766B versus NOPAT of roughly $1.421B, while management's $2.210B FCF before growth investments is non-GAAP. The data package shows FMP FCF of $0.224B, $(0.012)B, $(0.819)B, $1.834B, and $0.766B from FY2021-FY2025. The scorer tested FCF over multiple years, but the result is weak enough to

reduce quality credit.

Capital allocation is reduced from 5/10 to 5/10, unchanged but capped. Buybacks reduced diluted shares from 245M in FY2021 to 199M in FY2025, which deserves credit. The cap remains because LS Power/CPower is material: the package cites $6.4B cash, 24.25M shares, and $3.2B assumed debt, and the first clean post-close segment economics are not yet available.

Price and 20% underwriting is reduced from 6/20 to 3/20. The base-case IRR is below 10%, which is a zero under 6A. The base case reaches 2030 EPS of $7.29 and value at 15x of $109.31 versus a $137.93 scorer price and a $149.01 synthesis anchor. Even adding about $11 of dividends does not approach a 20% annualized return. A 20% return from $137.93 requires about $343 per share of terminal value plus dividends over five years. The scorer's 6/20 is too generous for a case that fails the 20% hurdle in base, bear, and even the stated bull IRR.

3. Unsupported Claims

The score does not make many unsupported promotional claims. The largest partly supported claim is that acquisition-inclusive 5-year ROIIC is roughly 9-10%. That is directionally plausible from the local evidence, but the appendix does not provide a full year-by-year NOPAT and reinvestment bridge including Vivint, Rockland, LS Power funding, capex, working capital, and acquisition consideration. Because acquisitions are central to NRG's strategy, this should lower confidence and cap Category 1 and Category 5.

The second partly supported claim is the runway credit for data centers, VPP, and CPower. The data package documents 445 MW of data-center agreements, VPP targets, CPower capacity, and management's statements, but it also says no FY2025 product-dollar revenue or EBITDA contribution is disclosed. These claims can support optionality, not high-confidence compounder points.

The third partly supported claim is that Vivint's economics are high quality. The data package supports strong adjusted EBITDA, retention, and recurring service margin commentary, but GAAP operating income was only $53M against FY2025 adjusted EBITDA of $1.092B. Customer acquisition cost, churn, amortization, and FCF conversion remain necessary evidence before awarding higher points.

4. Calculation Errors

No hard arithmetic break was found in the core score. FY2025 NOPAT math is reasonable: $1.845B operating income x (1 - 23.0%) equals about $1.421B. EV/NOPAT is reasonable: $40.717B EV / $1.421B NOPAT equals about 28.7x. FY2025 GAAP-style FCF conversion is correctly described as $0.766B / $1.421B, or about 54%. Share count math in the synthesis ties: 190.376607M starting shares minus 18.215M repurchased plus 4.500M SBC issuance equals 176.661M ending shares.

The main calculation issue is not a broken formula; it is point calibration. Under the CS rubric, base-case IRR below 10% should score 0 for 6A. The original score's 6/20 valuation total leaves too much residual credit for a base case that fails the 20% test, a bear case that is deeply negative, and a bull case that reaches only 7% IRR.

5. Missing Data

The most important missing evidence is a clean post-LS Power 10-Q segment taxonomy, leverage bridge, maintenance capex requirement, acquired fleet EBITDA, CPower economics, and acquisition-inclusive ROIIC. The local package also lacks product-level dollars for retail electricity, natural gas, data centers, VPP, smart-home subscriptions, equipment, installation, and generation capacity. FY2024 FMP quarterly segment revenue is unreliable per QF and should not be used without official checks.

FCF quality also needs continued evidence. The scorer correctly separates GAAP-style FCF from NRG's FCF before growth investments, but the spread is large enough that future score updates should reconcile working capital, collateral, growth investments, maintenance capex, and adjusted cash-flow definitions before raising accounting or capital-allocation points.

6. Hard-Veto and Threshold Test Audit

Hard vetoes are correctly failed for customer/regulatory/cyclicality/leverage impairment risk, the non-working 20% return case, and the need for upper-base or bull execution to justify today's price. The diagnostic threshold tests are also correctly failed: total score is below 80, Business Quality is below 65/80, Valuation is below 15/20, ROIIC plus runway is below 35/45, base IRR is below 20%, bear IRR is not acceptable, hard vetoes are present, and the 20% case does not work under conservative terminal assumptions.

7. Final 20% Hurdle Pass/Fail

Final 20% hurdle: Fail. The 20% case requires terminal value plus dividends of about $343 per share from the scorer's $137.93 price, while the synthesis base value is $109.31 before dividends and the bull value is $182.46 before dividends. The base model can show EPS growth and still fail as an investment because the current valuation already capitalizes too much of the improvement.

8. Dream Business / Dream Investment Classification

Classification: neither. NRG is not a dream business because consolidated returns, margins, and cash conversion are too volatile, and the moat is YELLOW rather than durable-wide. It is not a dream investment because the 20% return underwriting fails decisively at the current price. The single biggest reason is simple: the business may improve, but the verified base case does not produce enough per-share value to justify the entry price under a 20% hurdle.

9. Stage 7 Scorecard Notes

Compounder Score note: 36/100; audited score remains Reject because NRG has useful assets but volatile returns, acquisition evidence gaps, and a failed 20% return setup.

Business Quality Score note: 33/80; Texas and Vivint deserve credit, but weak ROIIC proof, uneven GAAP FCF, post-LS Power uncertainty, and competitive energy-market exposure cap quality.

20% Return UW Score note: 3/20; base IRR is below 10%, bull IRR is only 7%, and the stock would need far more terminal value than the source model supports.

10. Auditor JSON

See `compounder_score_audit.json` in this folder for the machine-readable audit.

Appendix RT - Red Team

NRG Energy, Inc. - Red Team

Stage 0 anchor: today is 2026-04-30. NRG's fiscal year ends December 31. The latest reported quarter is Q4/FY2025, ended 2025-12-31. The TTM anchor is Q1-Q4 2025, ending 2025-12-31. The TTM+5y horizon is 2030-12-31. This red team is written against the reviewed synthesis, management, moat, data-package and segment appendices available in the company workdir as of this date.

1. The Most Fragile Assumption

The most fragile assumption is East margin recovery. The synthesis base case assumes East revenue grows from $14.263 billion to $16.137 billion and operating margin rises from 5.0% in FY2025 to 6.2% by 2030, producing $1.001 billion of operating income. That looks modest beside East's FY2021 and FY2024 margins, but the historical pattern is exactly why this is fragile rather than comforting. East margins were 14.6%, 1.9%, negative 13.8%, 15.4%, and 5.0% from FY2021 through FY2025. A segment that can swing from strongly profitable to deeply negative and back again is not a normal recurring compounder with a clean mean-reversion line. It is a portfolio of retail, wholesale, generation, capacity, fuel, hedging, maintenance, and regulatory exposures where the same tight market that creates revenue can also create cost-to-serve pressure.

The base case leans on a narrow but important mechanism: capacity scarcity and better portfolio optimization must more than offset retail cost-to-serve pressure and maintenance. The data package does not fully prove that mechanism. It says Q2 and Q3 FY2025 were pressured by increased supply costs to serve retail load, and FY2025 East adjusted EBITDA declined $25 million year over year to $981 million despite the segment's 21.8% revenue rebound. That is a warning sign. Revenue strength did not translate into clean margin strength. The synthesis correctly avoids extrapolating 21.8% revenue growth, but it still assumes enough margin repair to add roughly $295 million of East operating income by 2030.

The sensitivity table makes this the key break point. A 200 bp miss on East margin moves EPS down by about $1.41, from $7.29 to $5.88. That one sensitivity consumes more than half of the already-failed base case's distance to the P/E 15 threshold in the wrong direction. The required EPS at $149.01 is $9.93. Base EPS is $7.29. If East settles at 4.2% rather than 6.2%, the base moves to $5.88 and the P/E 15 value falls to about $88, not $109. The bull case can still clear on paper, but this red team would not let the bull case control the decision when the largest sensitivity sits in the segment with the most unstable margin record.

2. The Most-Likely-To-Be-Optimistic Stage 5 Number

The most likely optimistic Stage 5 number is the combined 2030 operating income of $2.609 billion in the base case. The top-line forecast is not heroic: 2.9% consolidated revenue CAGR to $35.485 billion is reasonable. The share count path is explicit rather than magical. The tax rate is ordinary. The problem is that base operating income requires margin recovery in the two energy segments that are most exposed to cost, weather, plant availability, capacity rules, customer affordability, and post-LS Power integration. Texas operating income rises from $1.113 billion to $1.521 billion, East rises from $706 million to $1.001 billion, West/Other holds roughly stable, and Vivint adds only $62 million of operating income. The model therefore asks Texas and East to do the heavy lifting.

That is not impossible. It is just not robust enough to underwrite the current price as the base case. The operating income bridge is especially vulnerable because the LS Power/CPower transaction has closed but is not seasoned in a full post-close 10-Q. The company funded a large acquisition in the same period when the CEO transition is occurring and when data-center demand has made dispatchable power assets popular. The management appendix calls LS Power coherent but unproved; the moat appendix calls the post-LS Power capacity and CPower demand-response assets real but conditional. The synthesis does not add a separate LS Power earnings layer in base, which is disciplined, but the acquired platform still affects the base by influencing capacity exposure, leverage, interest cost, capital allocation, and execution risk. If the assets require more maintenance capex, deliver lower availability, face lower capacity accreditation, or are integrated into segments less cleanly than expected, the operating income number is where the disappointment appears.

The red-team view is that $2.609 billion is a fair arithmetic base but an optimistic decision anchor. It gives credit for a cleaner Texas margin path, East repair, and stable corporate costs without yet having post-close evidence that the enlarged platform can deliver those benefits while carrying the enlarged debt load. If the first clean post-LS Power disclosures show segment OI below run-rate expectation or acquired EBITDA consumed by interest, maintenance and integration costs, the model should

be rewritten around a lower OI base rather than around higher growth optionality.

3. The Strongest Bear Case, In Its Strongest Form

The short thesis is simple: NRG is being priced as if the market has already converted a cyclical retail-power and merchant-capacity business into a durable AI-load compounder, but the base math still fails even after giving the company credit for margin recovery and buybacks. The stock needs upper-base or bull outcomes, yet the next two years contain the highest-risk variables: LS Power integration, a CEO handoff effective today, elevated leverage, uncertain interest run-rate, capacity-market politics, and retail affordability pressure. East can show rising revenue while margins compress, Texas can add data-center volume without commensurate operating income if contract risk is mispriced, and Vivint can keep high adjusted EBITDA while GAAP operating income remains small.

The mechanism is not a collapse in demand. The mechanism is spread leakage and financing drag. Power demand grows, but customer bills, capacity costs, plant maintenance, collateral, and regulation prevent NRG from keeping enough of the value. The observed line item would be segment operating margin: East below 5.0% and Texas below 9.5% on a post-LS Power reported basis would validate the bear case faster than headline revenue weakness. The timeline is fast: Q1-Q4 2026 should reveal whether the acquired assets, capacity exposure, and buyback framework are adding per-share value or merely adding complexity. If the answer is the latter, the current $149 price is not discounting risk; it is discounting execution.

4. Cross-Examination Of Management Commentary

The first statement to cross-examine is the Q4/FY2025 claim that the long-term framework assumes "flat power and capacity prices." Skeptically, this is doing a lot of work. If the framework does not require rising prices, then margin improvement must come from customer growth, contract structure, VPP/demand-response economics, plant availability, portfolio optimization, and cost control. That is a long list of execution items to ask of a company also digesting LS Power and changing CEOs. If the comment proves too optimistic, the first evidence will be East margin failing to recover despite PJM tightness and Texas margin failing to expand despite TEF, VPP and large-load activity.

The second statement is that the base outlook "does not assume any additional data center contracts." That sounds conservative, but it can mislead if investors treat the absence of extra contracts as a free option without testing the embedded contracts' economics. Data-center power is not automatically high-margin revenue. A contract can look attractive at headline price and still absorb fuel, congestion, curtailment, collateral, reliability, construction, and credit risk. Management's "Bring Your Own Power" framing is strategically right because it tries to keep incremental costs with incremental customers. The red-team question is whether regulators, customers and market rules allow that separation to hold. If not, the incremental load can create political and cost-to-serve pressure for the retail base.

The third statement is the corporate adjusted EPS target: "14%+ extended through 2030." That target is not GAAP EPS, and it includes LS Power and capital allocation. The synthesis base case already gives material buyback credit and still reaches only $7.29 of EPS. To close the P/E gate, NRG needs roughly $2.65 more EPS, or about $0.608 billion of additional pre-tax income at the modeled share count and tax rate. Adjusted EPS language can bridge some investor communication, but it cannot bridge the ER2 gate unless the operating income, interest and share count lines all move favorably. The first sign the target is overpromising would be management leaning on adjusted measures while GAAP operating income, interest expense and diluted share count do not combine into clear common EPS growth.

5. Stage 5 Tie-Out Reverification

The Stage 5 arithmetic tie-outs appear internally sound. The anchor is correct: Q1-Q4 FY2025 equals the TTM period ending 2025-12-31, and Q1 2026 had not been reported as of 2026-04-30. The red-team objection is not a math error. It is that the base case has too little valuation cushion for a company whose relevant forward information has not yet seasoned. The first post-close quarter is a genuine model-reset event, not routine noise.

The share count path is reasonable but still a vulnerability. The synthesis starts with 190.376607 million common shares outstanding and assumes $600 million of annual buybacks for five years, offset by about 0.9 million shares of annual stock-based compensation issuance. Ending diluted shares are 176.7 million. This is not aggressive compared with recent repurchases or the $3 billion authorization, but it still assumes buybacks continue while the company absorbs LS Power and manages leverage. The data package notes $4.9 billion of notes issued in October 2025 to fund LS Power and refinance debt, and the management appendix notes additional 2031-2036 notes disclosed on April 28, 2026. If leverage management forces buybacks below $600 million per year, the EPS impact is not thesis-saving by itself, but it worsens an already failed base case. The synthesis sensitivity says a 5% higher share count cuts EPS by about $0.35.

Interest expense is the sharper below-the-line challenge. FY2025 interest expense was $0.772 billion, while the base model uses $0.850 billion, bear $0.950 billion, and bull $0.750 billion. Given FY2025 total debt of $16.766 billion, FMP net debt of $12.028 billion, net debt/EBITDA of 3.16x, and a year-end cash balance elevated by transaction financing, the base interest number should be treated as a monitored assumption rather than a conservative floor. A $100 million adverse pre-tax interest swing is roughly $77 million after tax, or about $0.44 of EPS at the modeled share count. Interest alone does not explain the P/E fail, but combined with East margin and slower buybacks it can move a failed base into a materially worse outcome.

There is no product where the synthesis obviously invents a revenue line. That is a strength of the model. But that same discipline exposes the problem: the bull case clears only when multiple undisclosed or not-yet-seasoned mechanisms work at once. East must approach better margins, Texas large-load economics must be protective, LS Power/CPower must integrate without excess debt friction, and buybacks must continue at meaningful scale. That is an investment thesis, not a base-case gate pass.

6. The Signal That Forces An Exit

The exit signal should be margin-based, not revenue-based. The specific trigger is: after two consecutive reported quarters with post-LS Power segment disclosure, if East operating margin is below 5.0% and Texas operating margin is below 9.5% while net interest expense annualizes above $0.900 billion, the thesis should be exited or reset to PASS regardless of revenue growth. The time window is the next two clean post-close quarters after Q1 2026 reporting begins, with Q1 2026 treated as a taxonomy and integration baseline if disclosure changes.

This signal is deliberately quantitative. East below 5.0% means the synthesis's base margin recovery to 6.2% is not yet appearing, and the highest-impact sensitivity is moving against the model. Texas below 9.5% means the best energy-segment moat is not converting load growth, VPP, TEF and data-center optionality into reported operating income. Interest above $0.900 billion means the capital structure is absorbing too much of any segment progress. If all three occur together, the base EPS should not be maintained at $7.29, the bull case should lose decision relevance, and the P/E 15 gate becomes even farther away.

7. Conviction At The End Of Red Team

The thesis does not survive as a BUY candidate at the current price because the base P/E gate already fails and the most plausible red-team breaks push the model lower, not higher. This is not a broken-company conclusion. NRG has real assets, better management execution than in its weaker historical periods, a coherent integrated power strategy, valuable Texas scale, installed Vivint relationships, and potentially useful LS Power/CPower optionality. The issue is that the current stock price asks investors to prepay for execution that remains in the upper-base or bull range.

The bull-clears-but-base-fails dynamic should be attacked rather than softened. Bull EPS of $12.16 is possible, and that is exactly why the stock can stay interesting for a watchlist. But the ER2 rule is not "buy companies with attractive bull cases." The rule is to buy when the base case clears P/E 15 with enough confidence in management, moat and durability. Here, both management and moat are YELLOW, 2046 durability is YELLOW, the CEO transition is effective today, LS Power/CPower has not yet seasoned, and the base case misses the valuation gate by 26.6%. A bull case that depends on stronger Texas/East margins, lower interest expense, clean LS Power integration and meaningful buybacks cannot rescue that.

The red-team conclusion is PASS pending evidence. Revisit after the first clean post-LS Power segment disclosure and after interest expense and buyback cadence are visible under the enlarged balance sheet. The upgrade condition is not more data-center excitement. It is a measurable improvement in the exact lines that close the gap: East margin above 6.2%, Texas margin at or above 11.5%, annualized net interest trending below $0.850 billion, and buybacks occurring without leverage slippage. Until those appear together, the correct narrative is base-case business progress, base-case valuation fail.

Appendix D - Data Package (raw historicals)

NRG Energy, Inc. (NRG) - Data Package

PATH_RECEIVED: C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\data_package.md

Stage 0 time anchor used in this package:

- Today: 2026-04-30.
- Fiscal year ends December 31.
- Most recently reported quarter: Q4/FY 2025, period ended 2025-12-31. Q1 2026 results are scheduled for 2026-05-06, so Q1 2026 is not yet reported as of today.
- TTM anchor: Q1 2025 + Q2 2025 + Q3 2025 + Q4 2025 -> TTM ending 2025-12-31.
- Forward horizon: TTM + 5 calendar years = 2030-12-31.

Data-source note: this D package uses `quant_foundation.md` as the quantitative source of truth for historical/TTM/segment numbers, as instructed by the hard gate. I also performed live FMP pulls in this run using `C:\Users\Admin\.codex\skills\fmp-financial-data\scripts\fmp_request.py`, live FMP transcript pulls for FY2025 Q1-Q4, a live SEC 2025 10-K fetch, and live NRG IR page/PDF opens. D-specific raw files are saved under `C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\raw_D\`. I did not use the local investing data warehouse or transcript cache.

1. Reporting Structure And Taxonomy

Current reportable segments

NRG reports four operating/reportable business segments plus Corporate and eliminations:

Segment	What it includes	FY2025 revenue ($B)	% of FY2025 total revenue	FY2025 operating income ($B)	FY2025 adjusted EBITDA ($B)	Source
Texas	Retail power, retail gas where applicable, generation and market operations in Texas	11.139	36.3%	1.113	1.877	QF P2; 2025 10-K; FY2025 IR release
East	Customer, plant and market operations in eastern U.S. markets, including PJM/New York/New England exposure	14.263	46.4%	0.706	0.981	QF P2; 2025 10-K; FY2025 IR release
West/Other	West and Canada operations plus other investments; quarterly releases use "West/Other" or "West/Services/Other"; NRG headline adjusted EBITDA tables include Corporate activities in this line	3.202	10.4%	0.149	0.137	QF P2; 2025 10-K; FY2025 IR release headline table
Vivint Smart Home	Smart-home security, automation, monitoring and related services	2.144	7.0%	0.053	1.092	QF P2; 2025 10-K; FY2025 IR release
Corporate	Corporate activities and unallocated costs	0.000	n/m	(0.176)	n/a	QF P2
Eliminations	Intersegment eliminations	(0.035)	(0.1)%	0.000	n/a	QF P2
Total	Consolidated NRG Energy, Inc.	30.713	100.0%	1.845	4.087	QF P2/P4; FY2025 IR release

The controlling 2025 taxonomy is the 2025 Form 10-K segment footnote and QF P-Taxonomy. FMP's `revenue-product-segmentation` endpoint is not a true product/SKU endpoint for NRG; it returns reportable segment revenue lines: Texas, East, West/Services/Other, and Vivint Smart Home. Those lines tie to gross segment revenue before

the $35 million elimination in FY2025. The FY2025 FMP annual segment endpoint and the sum of FY2025 quarterly FMP segment endpoint both total $30.748 billion, and QF Check 0 passed with a $0 difference. DR cross-check: NRG's FY2025 release appendix separates adjusted EBITDA at West/Other $180 million and Corp/Elim $(43) million, while the headline segment-results table reports West/Other $137 million with a footnote that it includes Corporate activities.

Taxonomy investigation

Reporting changed in two practical ways over the five-year period. First, Vivint Smart Home was acquired in 2023 and became a distinct reportable segment; FY2021-FY2022 segment histories therefore have no Vivint row. Second, the legacy "West/Services/Other" naming in older quarterly materials has moved toward "West/Other" in the FY2025 annual release, while the economic bucket still includes West/Canada operations and other activities. These labels should not be mixed with a fabricated product taxonomy. Use FY2023-FY2025 for clean post-Vivint comparability.

Taxonomy flag from QF: FY2024 FMP quarterly product/segment revenue does not tie to the FMP annual endpoint or official 2025 10-K comparatives. QF preserved the issue: FY2024 FMP annual segment revenue was $28.178 billion, while the four-quarter FMP sum was $34.850 billion. This issue is outside the FY2025 TTM anchor, but downstream subagents should not use FMP Q4 2024 segment revenue without checking the official filing. This package uses QF's official 10-K annual segment table for FY2021-FY2025.

Geography is embedded in the segment names rather than disclosed as a clean U.S./Canada revenue split. The business is primarily North America. West/Other includes West and Canada, but NRG does not provide a separately audited Canada revenue line in the QF source package.

2. Consolidated Historicals

Source hierarchy for this section: QF P3/P4/P6 controls; live FMP annual pulls saved in `raw_D` confirm the same statement rows; SEC/IR FY2025 release controls the $3 million FMP revenue presentation delta and the $5 million operating-income presentation delta for FY2025. Dollars are in billions except EPS and shares.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue ($B)	26.989	31.543	28.823	28.130	30.713	QF P2/P3; SEC/IR controls FY2025
Operating income ($B)	3.341	2.018	0.384	2.424	1.845	QF P2/P3; FMP annual live
Operating margin (%)	12.4%	6.4%	1.3%	8.6%	6.0%	Calc
Net income ($B)	2.187	1.219	(0.202)	1.125	0.864	FMP annual live; FY2025 IR release
EPS diluted ($)	8.93	5.17	(1.12)	4.99	4.01	FMP annual live; FY2025 IR release
Diluted share count (M)	245	236	228	212	199	FMP annual live; FY2025 IR release
Capex ($B)	(0.269)	(0.367)	(0.598)	(0.472)	(1.147)	FMP cash-flow live; QF P6
FCF, FMP definition ($B)	0.224	(0.012)	(0.819)	1.834	0.766	CFO plus capex; QF P6
FCF before growth investments ($B)	n/a	n/a	n/a	2.062	2.210	NRG non-GAAP IR release; not same as FMP FCF
FMP ROIC (%)	16.6%	9.1%	2.1%	11.6%	7.0%	FMP key-metrics live

ROIC calculation shown for FY2025: operating income of $1.850 billion from live FMP annual income statement, multiplied by (1 - 19.9% effective tax rate from FMP ratios), gives approximate NOPAT of $1.483 billion. FMP key metrics reports invested capital of $16.206 billion. Simple NOPAT/invested capital equals 9.1%. FMP's published ROIC field is 7.0%, indicating FMP uses a different invested-capital or operating-return convention. For model discipline, downstream subagents should carry both: use QF and FMP key-metrics ROIC as the quoted historical metric, and use explicit NOPAT/invested-capital math when deriving forward returns.

FY2025 cash-flow distinction is important. FMP free cash flow is operating cash flow of $1.913 billion plus capex of $(1.147) billion, or $0.766 billion. NRG's "Free Cash Flow before Growth Investments" is a non-GAAP metric and was $2.210 billion in FY2025. Do not use FCFbG as a substitute for GAAP operating cash flow or FMP FCF without labeling it.

3. Segment Historicals

All segment tables below come from QF P2, which uses the official 10-K segment table as the controlling source. Revenue and operating income are in $B. Operating margin is operating income divided by segment revenue. Corporate costs and eliminations are excluded from segment margin rows.

Texas

Texas	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue ($B)	10.295	10.057	10.474	10.651	11.139	QF P2; 10-K segment table
YoY %	n/a	(2.3)%	4.1%	1.7%	4.6%	Calc
Operating income ($B)	1.286	1.262	3.097	0.534	1.113	QF P2
Operating margin	12.5%	12.5%	29.6%	5.0%	10.0%	Calc

Texas was the largest contributor to FY2025 adjusted EBITDA despite East being larger by revenue. The FY2025 EBITDA improvement was driven by improved margins and supply-cost optimization per the Q4/FY2025 release. Texas remains the core geography for TEF projects, residential VPP, and several data-center/large-load power-agreement references.

East

East	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue ($B)	13.025	16.763	12.549	11.709	14.263	QF P2; 10-K segment table
YoY %	n/a	28.7%	(25.1)%	(6.7)%	21.8%	Calc
Operating income ($B)	1.901	0.318	(1.731)	1.806	0.706	QF P2
Operating margin	14.6%	1.9%	(13.8)%	15.4%	5.0%	Calc

East is the FY2025 revenue leader but not the margin leader. The segment's volatility reflects power, gas and capacity-market exposure. Q3/Q4 2025 commentary identified higher cost to serve retail load, planned maintenance and the Indian River retirement as negatives, partly offset by higher capacity prices and natural gas wholesale margins.

West/Other

West/Other	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue ($B)	3.659	4.706	4.241	3.819	3.202	QF P2; 10-K segment table
YoY %	n/a	28.6%	(9.9)%	(10.0)%	(16.2)%	Calc
Operating income ($B)	0.112	0.558	(0.862)	0.082	0.149	QF P2
Operating margin	3.1%	11.9%	(20.3)%	2.1%	4.7%	Calc

West/Other includes operations that are less cleanly scalable than the Texas and East integrated energy franchises. FY2025 headline West/Other adjusted EBITDA declined because of the September 2024 Airtron sale and May 2025 Cottonwood lease expiration, partly offset by higher retail power margins; use the company appendix if a segment-only adjusted EBITDA bridge is needed, because the headline table includes Corporate activities in West/Other.

Vivint Smart Home

Vivint Smart Home	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue ($B)	n/a	n/a	1.589	1.991	2.144	QF P2; 10-K segment table
YoY %	n/a	n/a	n/a	25.3%	7.7%	Calc
Operating income ($B)	n/a	n/a	0.049	0.124	0.053	QF P2
Operating margin	n/a	n/a	3.1%	6.2%	2.5%	Calc

Vivint is not comparable before the 2023 acquisition. GAAP operating income is small relative to adjusted EBITDA because the segment carries acquisition-related amortization and customer acquisition cost accounting. FY2025 adjusted EBITDA was $1.092 billion versus $53 million of operating income; downstream margin work should not confuse the two.

4. Product And Subsegment Dollar Disclosure

NRG does not disclose product-level revenue in dollars below the four reportable segments in the materials fetched for this run. The most granular dollar-disclosed historical revenue is segment revenue. The FMP endpoint named `revenue-product-segmentation` is segment revenue for this issuer, not product revenue.

Segment	Product/subsegment	What it is	Dollar disclosure?	Last 3 years dollar disclosure and source
Texas	Retail electricity and related services	Residential, small business, commercial/industrial load served in Texas	No separate product dollar line	Included in Texas segment revenue: FY2023 $10.474B, FY2024 $10.651B, FY2025 $11.139B
Texas	Owned and contracted generation/market operations	Supply and optimization behind integrated retail book	No separate product dollar line	Included in Texas segment revenue and segment income
Texas	Texas Residential VPP	Demand response/virtual power plant from home/customer devices	No revenue dollars disclosed	MW targets disclosed: 150 MW 2025 target raised in Q2; exceeded by FY2025; 650 MW by 2030 and 1 GW by 2035 cited in IR releases
East	Retail energy and natural gas	Retail load and gas margin in eastern markets	No separate product dollar line	Included in East segment revenue: FY2023 $12.549B, FY2024 $11.709B, FY2025 $14.263B
East	Owned generation and capacity	PJM/New York/New England generation/capacity exposure	No separate product dollar line	Included in East segment revenue/operating income
West/Other	West and Canada operations	West/Canada retail/market operations and other investments	No separate product dollar line	Included in West/Other segment revenue: FY2023 $4.241B, FY2024 $3.819B, FY2025 $3.202B
West/Other	Airtron/Cottonwood legacy items	Services business sold in 2024 and lease that expired in 2025	No continuing revenue line	Management disclosed these as EBITDA headwinds, not product revenue
Vivint Smart Home	Smart home subscriptions, installation, equipment and services	Security, automation, monitoring and recurring service margin	No separate product dollar line in QF source	Included in Vivint revenue: FY2023 $1.589B, FY2024 $1.991B, FY2025 $2.144B
Corporate/strategic	Data-center retail power agreements	Long-term power agreements for large-load customers on NRG sites	No revenue recognized yet in FY2025 product table	MW, term and pricing commentary disclosed; no product revenue dollars

Growth/KPI disclosures without product dollars:

Area	Disclosure method	Recent disclosed KPI	Source
Data centers	MW of long-term retail power agreements	295 MW announced Q2 2025; 445 MW total by Q3/Q4 2025; target at least 1 GW plus signed long-term contracts in 2026	Q2/Q3/Q4 IR releases; FMP transcripts
Texas VPP	MW targets	2025 target raised from 20 MW to 150 MW; FY2025 release says the raised target was exceeded; longer target 650 MW by 2030 and 1 GW by 2035	Q2 and Q4 IR releases
Vivint Smart Home	Customer count/retention/service margin	Q1 release cited over 6% net customer growth and 90% retention; Q3/Q4 releases cite record adds/retention and higher monthly recurring service margin per customer	Q1/Q3/Q4 IR releases
LS Power/CPower	Generation and demand response capacity	13 GW natural-gas/dual-fuel assets and 6 GW C&I VPP platform closed Jan. 30, 2026	Q4/FY2025 release and acquisition releases

No back-solved product-dollar rows are included. There is no disclosed FY2025 product base from which to back-solve retail power, natural gas, data centers, VPP, or smart-home subscription revenue. Adding such rows would create false precision.

5. Most Recent Quarterly Trend

Company FY ends December 31. Most recently completed fiscal quarter at time of writing: FY2025 Q4, covering October-December 2025, reported on 2026-02-24 via NRG's FY2025 results release and Form 8-K exhibit. Q1 2026 is scheduled for 2026-05-06 and is not reported as of 2026-04-30.

Revenue by segment is from QF P1/FMP live segmentation. Quarterly segment profitability is adjusted EBITDA from NRG IR release headline tables, not GAAP operating income. For West/Services/Other, NRG footnotes the headline adjusted EBITDA line as including Corporate activities; the West/Other margins below are therefore headline-table proxies, not pure standalone segment margins. EBITDA margin is adjusted EBITDA divided by segment revenue; this is a non-GAAP quarterly margin proxy, not the same as annual GAAP operating margin.

Quarter	Segment	Revenue ($B)	YoY revenue %	Adjusted EBITDA ($B)	Adj. EBITDA margin	Source
Q1 2025	Texas	2.437	n/a	0.299	12.3%	QF P1; Q1 IR release
Q1 2025	East	4.577	n/a	0.474	10.4%	QF P1; Q1 IR release
Q1 2025	West/Other headline incl. Corporate	1.099	n/a	0.077	7.0%	QF P1; Q1 IR release
Q1 2025	Vivint	0.494	n/a	0.276	55.9%	QF P1; Q1 IR release
Q2 2025	Texas	2.847	n/a	0.512	18.0%	QF P1; Q2 IR release
Q2 2025	East	2.737	n/a	0.099	3.6%	QF P1; Q2 IR release
Q2 2025	West/Other headline incl. Corporate	0.675	n/a	0.043	6.4%	QF P1; Q2 IR release
Q2 2025	Vivint	0.504	n/a	0.255	50.6%	QF P1; Q2 IR release
Q3 2025	Texas	3.379	n/a	0.807	23.9%	QF P1; Q3 IR release
Q3 2025	East	3.030	n/a	0.107	3.5%	QF P1; Q3 IR release
Q3 2025	West/Other headline incl. Corporate	0.715	n/a	0.019	2.7%	QF P1; Q3 IR release
Q3 2025	Vivint	0.532	n/a	0.272	51.1%	QF P1; Q3 IR release
Q4 2025	Texas	2.476	n/a	0.259	10.5%	QF P1; Q4/FY2025 IR release
Q4 2025	East	3.919	n/a	0.301	7.7%	QF P1; Q4/FY2025 IR release
Q4 2025	West/Other headline incl. Corporate	0.713	n/a	0.012	1.7%	QF P1; Q4/FY2025 IR release
Q4 2025	Vivint	0.614	n/a	0.275	44.8%	QF P1; Q4/FY2025 IR release

Quarterly revenue YoY is marked n/a because QF flagged FY2024 quarterly segment data as unreliable in FMP. The official quarterly press releases provide YoY adjusted EBITDA by segment, and those deltas are used below instead of FMP quarterly revenue growth:

Quarter	Texas adj. EBITDA YoY	East adj. EBITDA YoY	West/Other adj. EBITDA YoY	Vivint adj. EBITDA YoY	Source
Q1 2025	+$80M	+$123M	+$21M	+$32M	Q1 IR release
Q2 2025	+$60M	-$110M	-$30M	+$27M	Q2 IR release
Q3 2025	+$223M	-$57M	-$31M	+$15M	Q3 IR release
Q4 2025	-$68M	+$19M	-$6M	$0M	Q4/FY2025 IR release

6. Management Commentary On Forward Growth

Transcript source discipline: FMP `earning-call-transcript` was fetched live for FY2025 Q1, Q2, Q3 and Q4. Date fields returned were 2025-05-12, 2025-08-06, 2025-11-06 and 2026-02-24. The short quoted snippets below are verbatim and intentionally brief; interpretations are paraphrases tied to the relevant segment or corporate initiative.

Texas

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-05-12 / Q1 FY2025	Larry Coben, FMP transcript	"Our view on data centers hasn't changed."	Data centers and new build optionality	Texas remains a core large-load and dispatchable-generation market. The Q1 call also framed the LS Power/Rockland additions as increasing optionality, but data center upside was not included in the then-current base growth framework.

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-08-06 / Q2 FY2025	Larry Coben, FMP transcript	"this is just the beginning."	Initial 295 MW data-center agreements	The 295 MW contract was not positioned as a one-off. It supports a scenario where Texas site control and generation ownership become more valuable, but product revenue dollars are not yet disclosed.
2025-11-06 / Q3 FY2025	Larry Coben, FMP transcript	"above $80 per megawatt hour."	New data-center pricing target	Management raised target pricing for new long-term data-center agreements after the first 445 MW. Use as a qualitative support for contracted-margin upside, not as a disclosed revenue line.
2026-02-24 / Q4 FY2025	Larry Coben/Bruce Chung, FMP transcript	"Bring Your Own Power"	Affordability and large-load strategy	The framework is intended to keep data-center capacity costs with new large-load customers rather than existing retail customers. This is strategically important for Texas political/regulatory risk.

Texas segment drivers from IR releases: Q1 benefited from weather, plant performance and supply optimization; Q2 benefited from improved retail margin; Q3 benefited from margin and supply-cost optimization; FY2025 was higher YoY despite Q4 softness. TEF projects add 1.5 GW across T.H. Wharton, Cedar Bayou and Greens Bayou with expected commercial operation staggered from June 2026 to mid-2028.

East

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-11-06 / Q3 FY2025	Larry Coben, FMP transcript	"across ERCOT and PJM."	Data-center agreement geography	The 445 MW data-center book includes ERCOT and PJM sites. East/PJM capacity exposure is central to post-LS Power upside, but FY2025 East EBITDA was still pressured by cost to serve load and maintenance.
2026-02-24 / Q4 FY2025	Bruce Chung, FMP transcript	"flat power and capacity prices"	Long-term outlook assumption	Management's long-term growth framework does not require rising power/capacity prices. For East, this matters because capacity-market sensitivity is high after LS Power.

East segment drivers from IR releases: Q1 benefited from natural gas wholesale/retail gross margins, weather volumes, generation volumes and New York capacity prices. Q2 and Q3 were pressured by increased supply costs to serve retail load. FY2025 adjusted EBITDA declined $25 million YoY to $981 million despite Q4 strength. This mix argues against extrapolating East's FY2025 revenue growth into a stable margin expansion case without explicit capacity/retail-cost assumptions.

West/Other

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-08-06 / Q2 FY2025	NRG IR release	"expiration of the Cottonwood lease"	Structural EBITDA headwind	West/Other FY2025 EBITDA comparability is distorted by asset/service-business changes. Do not model FY2025 as an organic demand decline alone.
2025-11-06 / Q3 FY2025	NRG IR release	"sale of Airtron"	Portfolio change	The sale of Airtron in September 2024 continued to reduce YoY segment EBITDA through 2025.

West/Other has the least clean forward-growth disclosure among the four segments. Management commentary is mostly explanatory rather than aspirational. The stable modeling posture should be low growth, margin normalization after Airtron/Cottonwood effects, and no separate valuation premium unless future disclosures show new contracted assets or customer economics.

Vivint Smart Home

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-05-12 / Q1 FY2025	NRG IR release	"record-high retention rate of 90%"	Customer retention	Vivint's recurring-service economics were strong in Q1; high retention supports EBITDA durability despite low GAAP operating income.
2025-11-06 / Q3 FY2025	NRG IR release	"record new customer adds"	Customer growth	New customer adds and retention drove adjusted EBITDA growth in Q3/YTD. The key forward variable is customer acquisition efficiency, not segment revenue alone.
2026-02-24 / Q4 FY2025	NRG IR release	"monthly recurring service margin per customer"	Unit economics	FY2025 EBITDA growth came from customer count and recurring-service margin. GAAP operating income remains depressed by amortization/accounting.

Vivint is the clearest recurring-revenue asset in the portfolio but still needs separate analysis of churn, customer acquisition cost, amortization and financing. FY2025 revenue was $2.144 billion and adjusted EBITDA was $1.092 billion, but operating income was only $53 million. Downstream segment work should reconcile the high adjusted EBITDA margin with GAAP amortization and contract-cost accounting.

Corporate, Capital Allocation And Long-Term Outlook

Date/period	Speaker/source	Verbatim quote snippet	Topic	Modeling interpretation
2025-11-06 / Q3 FY2025	NRG IR release	"$3 billion share repurchase authorization"	Capital return	Board authorized repurchases through 2028 and expected $1 billion in 2026 repurchases. This is central to EPS-per-share growth.
2026-02-24 / Q4 FY2025	FMP transcript	"does not assume any additional data center contracts"	Base outlook conservatism	Management said the long-term framework excludes new data-center deals beyond embedded contracts. This is a key bull-case option but not a historical revenue line.
2026-02-24 / Q4 FY2025	FY2025 IR release	"14%+ extended through 2030"	Adjusted EPS growth target	The target is adjusted EPS growth, not GAAP EPS. It includes LS Power and capital allocation, and should be tested against debt, buybacks and commodity/capacity sensitivity.

Most recent investor-day style source: the latest comparable strategic materials in this run were the Q4/FY2025 earnings presentation and FY2025 results release. The NRG IR site still lists a 2023 Investor Day, but the 2026 post-LS Power guidance and Q4 2025 call are more current and control forward framing.

7. Capital Allocation History

Amounts are in $B. Buybacks and dividends are cash outflows from live FMP cash-flow statements. R&D is zero in FMP income-statement presentation; NRG is not an R&D-heavy issuer. M&A is FMP `acquisitionsNet`, where negative values are cash used and positive values are proceeds/other net presentation.

Year	Capex ($B)	Capex / revenue	R&D ($B)	R&D / revenue	Buybacks ($B)	Dividends ($B)	M&A / acquisitions net ($B)	Source
FY2021	(0.269)	1.0%	0.000	0.0%	(0.048)	(0.319)	(2.729)	FMP cash-flow/income live
FY2022	(0.367)	1.2%	0.000	0.0%	(0.606)	(0.332)	0.047	FMP cash-flow/income live
FY2023	(0.598)	2.1%	0.000	0.0%	(1.172)	(0.381)	(0.516)	FMP cash-flow/income live
FY2024	(0.472)	1.7%	0.000	0.0%	(0.935)	(0.405)	0.463	FMP cash-flow/income live
FY2025	(1.147)	3.7%	0.000	0.0%	(1.403)	(0.411)	(0.596)	FMP cash-flow/income live; QF P6

FY2025 capital allocation was unusually active. NRG returned $1.6 billion to shareholders through approximately $1.3 billion in repurchases and $344 million in common dividends, per the FY2025 IR release. It also issued $4.9 billion of notes in October 2025 to fund the LS Power transaction and refinance debt. Q3 2025 introduced a new $3 billion repurchase authorization through 2028 and an 8% annual dividend increase to $1.90 per share. Buybacks reduced diluted weighted average shares from 245 million in FY2021 to 199 million in FY2025.

8. Balance Sheet Snapshot

Snapshot is FY2025 at 2025-12-31 unless noted. Dollars are in $B.

Item	$B	Source
Cash and equivalents	4.708	QF P6; FY2025 IR release
Restricted cash	0.030	QF P6; FY2025 IR release
Short-term investments / derivative current asset presentation	2.189	FMP balance sheet live
Total debt, FMP	16.766	FMP balance sheet live; QF P6
Current portion of long-term debt and finance leases	0.031	FY2025 IR release
Long-term debt and finance leases	16.412	FY2025 IR release
Net debt, FMP	12.028	FMP balance sheet live; QF P6
EBITDA, FMP	3.805	FMP income statement live
Net debt / EBITDA	3.16x	Calc from FMP net debt / FMP EBITDA
Goodwill	5.017	FY2025 IR release; FMP balance sheet live
Goodwill + intangibles	7.326	FMP balance sheet live
Total assets	29.140	FY2025 IR release; FMP balance sheet live
Total liabilities	27.459	FY2025 IR release; FMP balance sheet live
Stockholders' equity	1.681	FY2025 IR release; FMP balance sheet live
Tangible book value	(5.645)	FMP key-metrics live
Total liquidity excluding collateral received	9.628	FY2025 IR release

Important balance sheet caveat: the FY2025 balance sheet carries transaction funding for LS Power before the close. The acquisition closed on 2026-01-30, after the TTM anchor. Downstream analysis should not treat the 2025 year-end cash balance as normalized excess cash. It was elevated by debt issuance intended to fund the post-year-end acquisition. Net leverage should be revisited after Q1 2026 reports on 2026-05-06.

9. Recent Corporate Actions

- 2025-04-10: NRG closed the acquisition of a 738 MW Texas natural-gas generation portfolio from Rockland Capital for approximately $560 million, or about $760/kW, according to the Q1 2025 release.

- 2025-05-12: NRG announced an agreement to acquire 13 GW of natural-gas generation and a 6 GW C&I VPP platform from LS Power for cash, stock and assumed debt. Q1 2025 release said the consideration included 24.25 million NRG shares, $6.4 billion cash and assumption of $3.2 billion debt.
- 2025-07-31: NRG entered a $216 million Texas Energy Fund loan for the T.H. Wharton 415 MW/456 MW-nameplate facility at 3%, with summer 2026 commercial operation expected.
- 2025-08-06: NRG disclosed 295 MW of premium long-term data-center retail power agreements on NRG-owned Texas sites, with potential expansion up to 1 GW.
- 2025-09-26: NRG entered a $562 million Texas Energy Fund loan for the Cedar Bayou 689 MW/721 MW-nameplate facility, expected through mid-2028 commercial operation.
- 2025-10-08: NRG closed $4.9 billion of senior secured and unsecured notes to fund LS Power cash consideration and refinance 2025 secured notes.
- 2025-10-16: Board approved a new $3 billion share repurchase authorization through 2028 and planned $1 billion of 2026 repurchases.
- 2025-11-20: NRG entered a $370 million Texas Energy Fund loan for the Greens Bayou 443 MW facility; the FY2025 release stated all three TEF projects were on budget and on schedule.
- 2026-01-30: NRG closed the LS Power/CPower acquisition, adding 18 natural-gas and dual-fuel facilities totaling 13 GW across nine states and CPower's C&I demand response platform.
- 2026-02-02: NRG updated 2026 guidance to include approximately 11 months of LS Power ownership.
- 2026-02-24: NRG reported FY2025 results and reaffirmed 2026 guidance: adjusted net income $1.685-$2.115 billion, adjusted EPS $7.90-$9.90, adjusted EBITDA $5.325-$5.825 billion, and FCFbG $2.800-$3.300 billion.
- 2026-04-08: Business Wire/Yahoo showed NRG scheduled Q1 2026 results for 2026-05-06. Q1 2026 is not yet reported as of the Stage 0 anchor.

10. Open Data Gaps

- Product-level dollar revenue is not separately disclosed. NRG's FMP "product segmentation" endpoint is segment-level for this issuer. No dollar revenue table exists for retail electricity, natural gas, data centers, VPP, smart-home subscription service, equipment, installation, generation capacity, or CPower in the FY2025 historical base fetched for this package.
- FY2024 FMP quarterly segment revenue is unreliable per QF. Because QF found a $6.672 billion FY2024 annual-vs-quarterly gap outside the TTM year, this package avoids YoY segment revenue growth by quarter and uses official adjusted EBITDA YoY deltas from IR releases instead.
- Vivint pre-2023 comparability is limited. Vivint was acquired in 2023; FY2021-FY2022 have no Vivint segment rows. FY2023 includes acquisition-year comparability issues.
- Quarterly segment GAAP operating income is not provided in the same clean form as annual segment operating income in QF. Quarterly segment trend uses adjusted EBITDA from NRG IR releases and labels it accordingly.
- Post-LS Power segment taxonomy is not yet reported in a full 10-Q as of 2026-04-30. Q1 2026 will be the first post-close quarterly report and may update reportable segments, allocation of CPower, generation capacity by region, and debt/cash normalization.
- Data-center revenue is not separately recognized or disclosed as product dollars in FY2025. MW, pricing targets and contract terms are disclosed qualitatively, but no revenue or EBITDA contribution by contract is in the historical base.
- The 2023 Investor Day remains available on NRG's IR page, but the FY2025/Q4 2025 earnings release, Q4 2025 transcript and post-LS Power guidance are more current. This package uses the recent materials as the forward management anchor.

Self-Verification Log

Check	Live source in this run	Result
Most recent quarter segment evidence	NRG FY2025 results PDF opened live via IR event page	Q4 2025 headline adjusted EBITDA table found: Texas $259M, East $301M, West/Other $12M including Corporate activities, Vivint $275M; appendix separates West/Other $26M and Corp/Elim $(14)M; total $847M
Management quote date	FMP `earning-call-transcript` for NRG FY2025 Q4 saved in `raw_D\fmp_transcript_2025_Q4.json`	Date field returned 2026-02-24; selected snippet found in content
Most recent full-year revenue	FMP `/stable/income-statement?symbol=NRG&period=annual&limit=6` live pull saved in `raw_D\fmp_income_statement_annual_live.json`	FY2025 revenue returned $30.710B; QF/SEC controlling revenue is $30.713B, a 0.01% presentation delta

Source Index

- QF source of truth: `C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\quant_foundation.md`.
- FMP live endpoints used: `profile`, `quote`, `income-statement`, `balance-sheet-statement`, `cash-flow-statement`, `key-metrics`, `ratios`, `revenue-product-segmentation`, `earning-call-transcript`.
- NRG IR Q1 2025 results: `https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-reports-first-quarter-2025-results-and-reaffirms`.
- NRG IR Q2 2025 results: `https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-reports-second-quarter-results-and-reaffirms-2025`.
- NRG IR Q3 2025 results: `https://investors.nrg.com/news-releases/news-release-details/nrg-energy-inc-reports-third-quarter-results-reaffirms-2025`.
- NRG IR Q4/FY2025 event and release: `https://investors.nrg.com/events/event-details/q4-2025-nrg-energy-inc-earnings-conference-call`; PDF static file opened from supporting materials.
- SEC FY2025 Form 10-K live raw file: `C:\Users\Admin\OneDrive\GPT\ER 2.0\NRG Energy, Inc\raw_D\sec_NRG_2025_10K_live.htm`.