



# ENERGY'S COMEBACK KIDS



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# ENERGY'S COMEBACK KIDS

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# INTRODUCTION

IN THE ENERGY INDUSTRY, always-on transformation is rapidly becoming the default state. Few other industries contend with such a wide variety of shifting dynamics, including huge swings in the prices of natural resources, ever-changing government regulations, and new technologies that upend established models. In this environment, any company that wants to stay on top will have to continuously adapt its practices and portfolio to meet ever-shifting demands. What separates long-term winners from losers is the ability to rebound from a crisis—or, even better, to anticipate the crisis and transform the organization *before* it hits.

Among utilities, for example, customers have increased expectations for sustainable sources of energy—such as wind, solar, and biofuels—and they want higher-quality services at lower costs, inspired by the digital revolution in every other area of their lives. New technologies are emerging, existing assets are becoming obsolete, and business models are increasingly shifting to digital. Political and regulatory pressure, particularly in Europe, and increased shareholder activism put the burden on management teams to make tough decisions in order to increase shareholder value. (In Germany, for example, the government announced that all nuclear power plants would be shut down by 2022, leaving utilities scrambling to adjust.)

In the oil and gas sector, the collapse in oil prices that began in June 2014 triggered a wave of measures, including a drastic reduction in capital expenditures, layoffs of nearly 500,000 employees, and asset sales among many companies. Even before oil prices collapsed, inflation in many markets and rising project costs had put pressure on the entire sector and led to a steady decline in shareholder return for many companies. (Experience



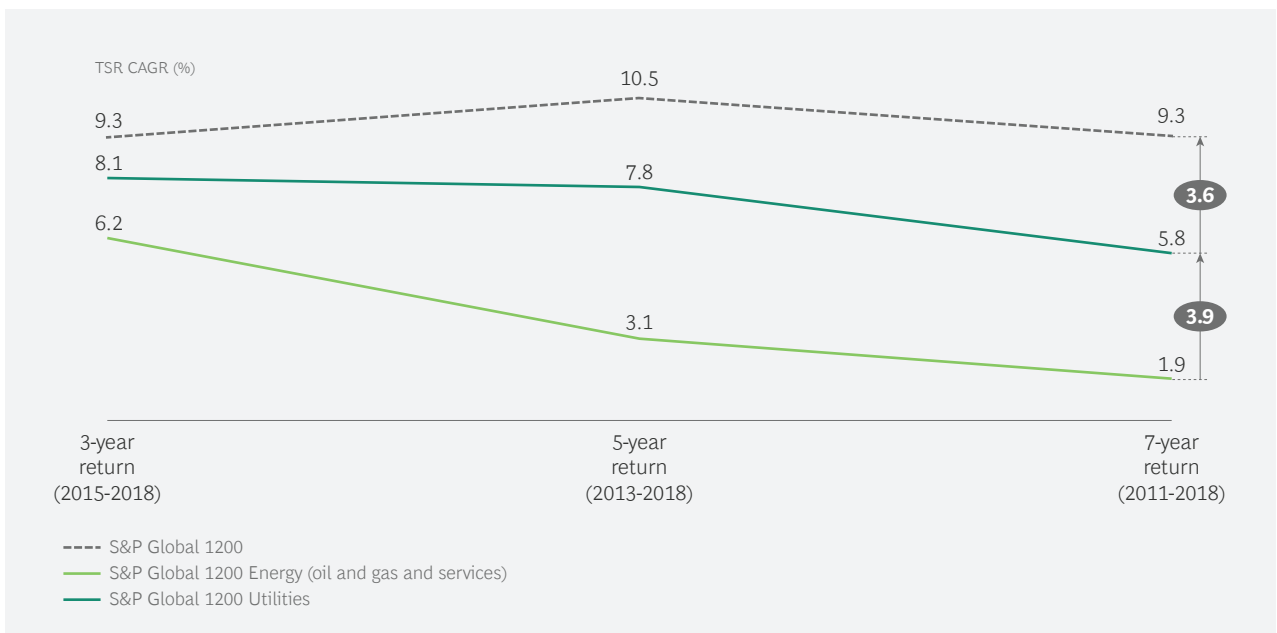
Long-term winners have the ability to anticipate a crisis and transform the organization *before* it hits.

and data show that oil prices aren't the only driver of business performance among oil and gas players.) Changes in the energy mix—such as shale oil and gas in the US—and political and economic instability in many hydrocarbon-rich countries have only compounded the difficulty of long-term planning. Prices have begun to climb back, but not predictably enough to inform strategic decisions for the future. On top of all this, as digital becomes paramount, many companies are realizing today that they don't have the capabilities required to successfully incorporate new technologies and unlock the opportunities they offer.

Because of these challenges, both oil and gas companies and utilities have underperformed the overall market during the most recent three-, five-, and seven-year periods. (See Exhibit 1.) With regard to these sectors as a whole, it has been tough to argue that they were a good place for investors' capital. However, a subset of energy companies has beaten not only their peers but also the overall market. Some of these companies experienced a setback but managed to transform themselves in response. Others were able to anticipate the crisis and preemptively transform themselves. In both cases, the organizations emerged with improved competitive positions, able to generate sustainable growth in revenue and profits despite a difficult energy market.

To identify these winners, we screened nearly 900 publicly traded energy companies and identified those that experienced a clear stagnation or decline and subsequent rebound in key metrics, such as profit margins and market capitalization, over the past seven years. That left us with slightly more than 70 companies, a number that we further reduced by analyzing the factors that led to their strong subsequent per-

EXHIBIT 1 | The S&P Oil and Gas and Utility Indices Have Dramatically Underperformed the Overall Market



Sources: S&P Capital IQ; BCG analysis.

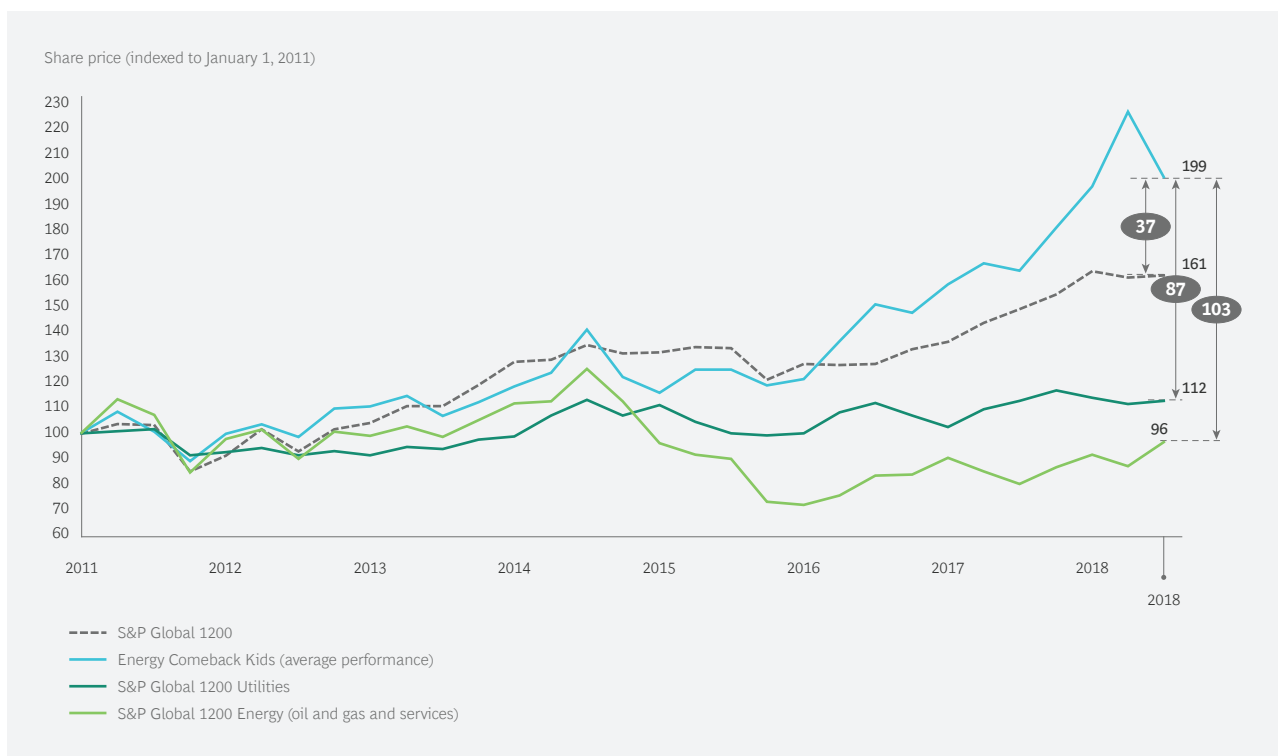
Note: TSR = total shareholder return. CAGR = compound annual growth rate. TSR calculation runs from June 30 of the initial year indicated to June 30, 2018.

formance. The result is a list of nine energy companies—both oil and gas companies and utilities. Collectively, this group dramatically outperformed both their respective benchmark indices and the overall market during the period. (See Exhibit 2.)

To be clear, these companies faced the same market disruptions as their peers, including the swings in oil prices, regulatory pressures, accelerated transition to digital, and changed expectations among their customers. In many cases, they also faced company-specific problems that compounded the challenge for management teams. Yet they were able to emerge stronger. A key reason is that they all launched structured transformation programs, with some critical elements in common.

- These companies understood that no one-time initiative, no matter how comprehensive, would be sufficient. Instead, they adopted a mindset of always-on transformation, in which successive efforts overlap, with a long-term focus on increasing efficiency and productivity to generate sustainable revenue growth and profitability. (See *A Leader's Guide to Always-On Transformation*, BCG Focus, September 2015.)
- They avoided creating sacred cows through a willingness to constantly question their portfolio mix, sell off assets as needed, and position themselves for a lower-carbon environment.

EXHIBIT 2 | The Comeback Kids Have Outperformed Energy Indices and the Market as a Whole Since 2011



Sources: S&P Capital IQ; BCG analysis.

Note: Because of rounding, not all numbers add up to the totals shown.

- They built the right culture and capabilities, realizing that no turnaround effort will be sustainable unless it leads to fundamentally new ways of working.
- They relentlessly reduced costs, and increased asset productivity, in a continuous search for improved margins.
- They invested in digital to develop new products and services, transform operations and support functions, and dramatically improve the way they go to market.

In sum, turnarounds are increasingly important across all industries; but for energy companies, they're absolutely critical. As the six stories on the following pages illustrate, the challenges in the industry are tough, but winning management teams find a way to overcome them and come out stronger.



# KANSAI ELECTRIC POWER REBOUNDS FROM A MASSIVE NATURAL DISASTER

**T**HE GREAT EAST JAPAN Earthquake of 2011 was the worst temblor ever recorded in Japan and the fourth largest in the world since scientists began modern record keeping. It also created a major disruption for Kansai Electric Power, Japan's second-largest power company, which supplies 120 terawatt-hours of electricity. Kansai has a track record of innovation: over a period of seven years, the company developed an iconic hydroelectric power station—then the largest such facility in the country—on Japan's Kurobe River, and it built Japan's first nuclear reactor in 1970.

The earthquake, however, posed the toughest challenge since the company's founding in 1951. At the time of the disaster, Kansai depended on nuclear energy for almost half of its generation output. But after the earthquake, the Japanese government forced all utilities, including Kansai, to shut down their nuclear power plants.

To deal with this unprecedented situation, Kansai ran its existing thermoelectric generators and hydroelectric generators at full capacity, purchased more electricity from other companies, and asked its customers to save energy to avoid outages. As the price of crude oil and liquified natural gas rose, however, Kansai's costs increased, and the company ended up posting a net loss of \$3 billion in 2011. What's more, there were signs of an impending deregulation in the Japanese power market that would put additional pressure on the company.

In response, Kansai launched a turnaround aimed at dramatically improving efficiency. For fiscal year 2012, the goal was to review engineering operations, which included potentially replacing transformers and power lines and improving R&D. The subsequent year, Kansai expanded the initiative across the entire organization, including capital investments and maintenance. (For example, some conventional thermal generators were upgraded to more efficient combined-cycle gas turbines.) In fiscal 2014, the company implemented a broader set of upgrades to one of its power plants, leading to efficiency gains of \$372 million.



The total amount saved as a result of the cost-cutting and efficiency measures was \$2.6 billion.

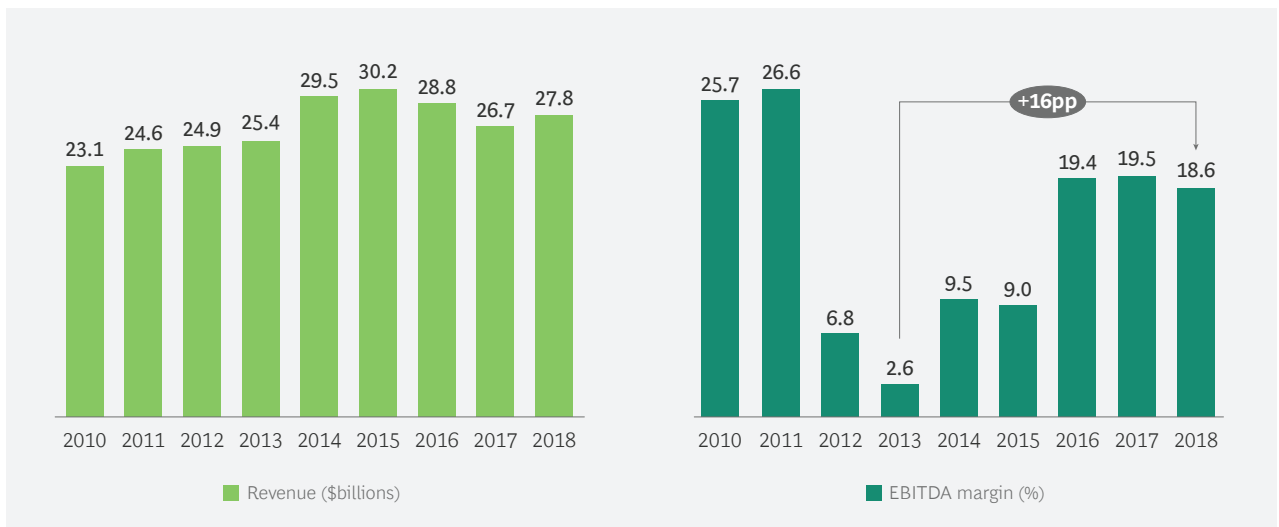
With regard to nonoperational changes, Kansai reviewed the efficiency of every department in the organization—no exceptions. Among specific improvements, it revamped its procurement processes and scaled back such services as PR and marketing. The total amount saved as a result of all the cost-cutting and efficiency measures was \$2.6 billion, which allowed Kansai to maintain minimum electricity rate increases for retail power.

When the government ultimately deregulated the Japanese power market, and Kansai faced losing market share to new competition, a new business opportunity opened up for the company because of the natural-gas deregulation. Management established a residential gas business that attracted 435,000 customers in its first year, thanks to competitive prices for bundled gas and power services.

Moreover, through a subsidiary, Kansai expanded its real estate businesses worldwide. It now sells new homes in growing markets, such as Southeast Asia, and leases properties in mature markets, such as Australia, Europe, and the US. A telecommunications business through another subsidiary, K-Opticom, has further diversified Kansai's portfolio of services. The company offers combined internet, phone, and television service through fiber-to-the-home infrastructure that serves 1.6 million customers. In 2014, it entered the market for mobile telecom service as a mobile virtual network operator, building up another 1 million customers.

To further increase efficiency and deliver better customer experience, Kansai also invested in digital tools and services. For example, it increased the use of smart power meters, aiming to have them in place

EXHIBIT 3 | Revenues Stabilized with EBITDA Improving by 16 Percentage Points



Sources: S&P Capital IQ; BCG analysis.

Note: Based on the exchange rate as of July 17, 2018: 1 JPY = 0.008867607 USD.

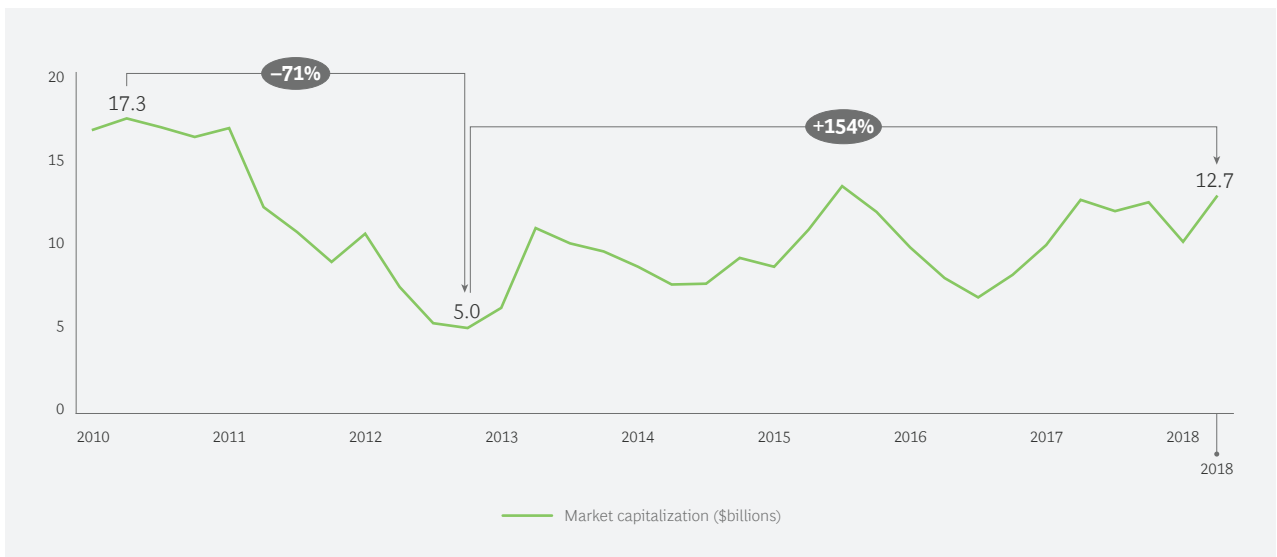
for all residential customers by 2022. These meters show more accurate usage data, which helps the company to tailor retail pricing in accordance with customer needs. Kansai has also developed a digital tool that more effectively balances the supply and demand for power. It predicts fluctuating output from solar power plants by calculating the amount of solar radiation at the plants' locations and combining that result with an analysis of the usage data from smart meters.

The combination of improved efficiency and increased revenue has paid off. Net income for Kansai rebounded from  $-\$2.2$  billion in 2013 to  $\$1.2$  billion in 2016, and it has continued to climb, reaching  $\$1.3$  billion in 2018 despite a decrease in electricity rates. Revenue is now stable, and earnings before interest, tax, depreciation, and amortization (EBITDA) margins are more than seven times greater in 2018 (18.6%) than they were in 2013 (2.6%). (See Exhibit 3.) Moreover, since bottoming out in 2012, Kansai's market capitalization has increased by 154%. (See Exhibit 4.)

The company fought its way back from misfortune through a structured turnaround and a mindset of solving short-term problems first. "With these opportunities before us, rather than the path of growth that we followed in the past, we must respond to the rapidly changing environment proactively and flexibly with new ideas," said Shigeki Iwane, Kansai's president and director, in 2016, when the company renewed its management principles, the vision of Kansai group, and the medium-term management plan. "So we have steered management with plans for single fiscal years."

With those immediate crises behind it, Kansai is now positioned to thrive for the long term.

EXHIBIT 4 | After a Steep Drop, Kansai Electric Power's Market Capitalization Increased by 154%



Sources: S&P Capital IQ; BCG analysis.  
 Note: Based on the exchange rate as of July 1, 2018: 1 JPY = 0.008867607 USD.

# ERG REORIENTS ITS PORTFOLIO AROUND RENEWABLE ENERGY

ITALIAN ENERGY COMPANY ERG has an 80-year heritage of strong growth. Over the decades, it completed a series of acquisitions that provided operations in coastal refining and downstream products, such as lubricants and fuels, including a network of 2,000 service stations. But during the first decade of the 2000s, market conditions began to turn against the company, producing a corresponding drop in margins. By 2008, ERG's refining operations, which made up 60% of total revenue, were posting EBITDA margins of just 1.5%—only one-third of where they were just three years earlier. Margins at ERG's integrated downstream operations, which constituted another 32% of revenue, had fallen by half during the previous three years, to 2.3%.

Worse, market conditions looked especially grim for the near future. Oil prices had nearly tripled, to historic highs, from January 2007 to July 2008, triggering fears of a speculative bubble and virtually guaranteeing that prices would fall soon. At the same time, massive new oil refineries were opening in the Middle East. Not only could these refiners capitalize on locally sourced feedstock and strong government support, but they had scale advantages because of their size and were more technologically advanced. As a result, they created a worldwide glut that threatened established competitors in the US and Europe.

There were macroeconomic headwinds as well. The global financial crisis dampened GDP growth and consumer confidence. Even after the crisis, the consumption of petroleum products in Italy declined at a compound annual rate of 4% from 2008 to 2015, compared with a decline in national GDP of 1% during that time.

If there was a bright spot, it was that ERG had a small renewables business generating energy from wind, an industry that was growing fast and increasing its margins. Moreover, new green regu-



ERG's small renewables business generated energy from wind, an industry that was growing fast.

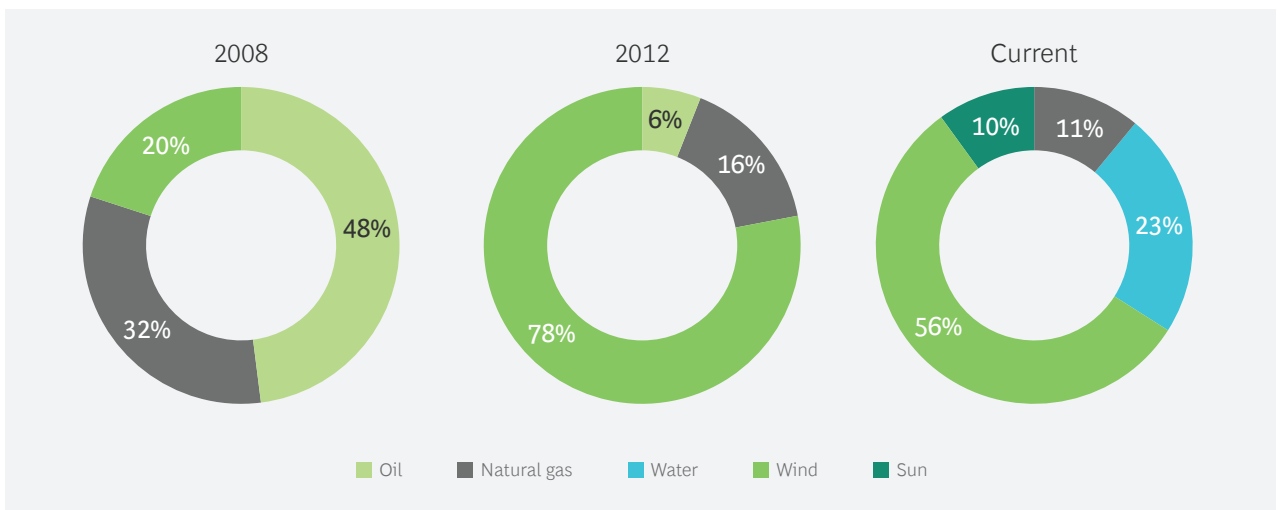
lations, such as progressive reduction of CO<sub>2</sub> emissions and higher efficiency standards for buildings and vehicles, created incentives to invest in renewables. Those factors threatened ERG’s core oil business, but they created a tailwind for the renewables sector.

To capitalize on this shift, ERG launched a turnaround program to scale back its oil operations and reorient the portfolio around renewables. The company began a series of oil-linked disposals in 2008, totaling about \$4.2 billion in deals by 2018, when the company was entirely out of the refining and service-station businesses. Over the same period, the company invested \$5 billion in renewable assets in areas including wind, solar, and hydroelectric power generation.

The company’s restructuring was extremely ambitious. ERG essentially started as an oil refiner, then slowly morphed into an integrated energy company split between conventional and renewable sources, and then ultimately became a focused electricity provider relying on renewable sources. Today, 89% of invested capital is allocated to renewables, and the remaining 11% (for natural gas) is earmarked for a combined-cycle cogeneration power plant, with high levels of efficiency and low emissions. (See Exhibit 5.) That plant is the first and largest facility to earn the High Efficiency Cogeneration qualification by the Italian government agency that promotes sustainable energy.

In addition to restructuring the portfolio, ERG launched several other measures to support the turnaround: a cost-cutting initiative significantly reduced fixed costs, and management brought operations and maintenance functions in-house, leading to lower costs and higher efficiencies. ERG also went through three reorganizations (in 2010, 2013, and 2017) to realign existing divisions and functions around the company’s changing needs. As part of those reorganizations, the company developed internal expertise in key areas. For example, it improved operation, maintenance, and construction skills to become increasingly competitive in operating cost management, and it developed energy

EXHIBIT 5 | ERG’s Invested Capital Shows the Shift from Oil to Renewables



Sources: ERG; BCG analysis.



The turnaround positioned ERG as a smaller and far more profitable company than it was ten years ago.

management skills to boost profits through electricity sales transactions. Moreover, a business development team was set up to create the basis for organic growth and long-term development in European target countries.

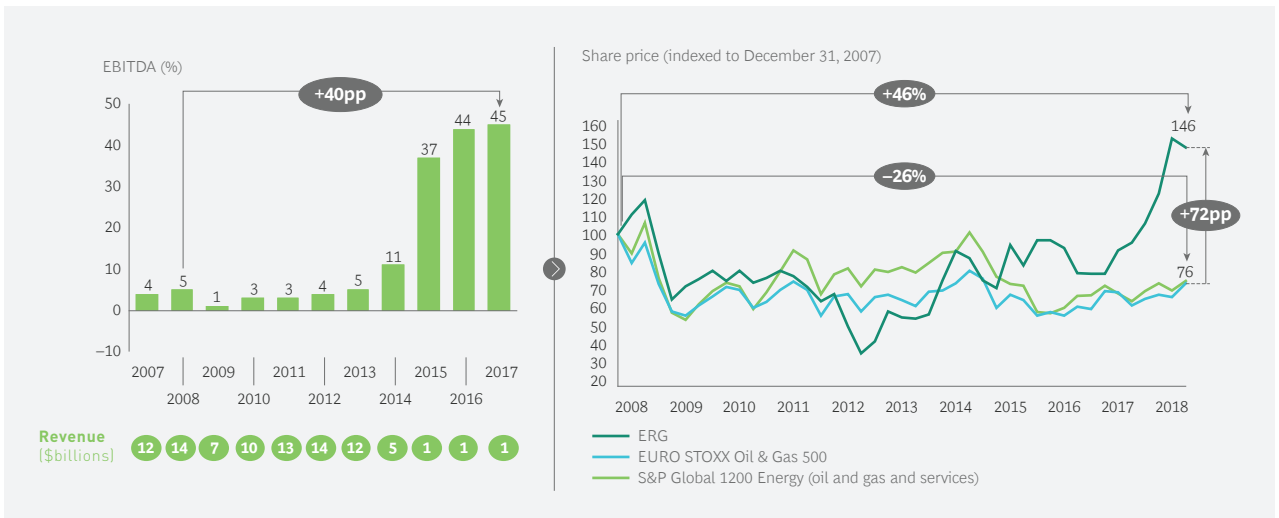
Overall, the turnaround has positioned ERG as a smaller and far more profitable company than it was ten years ago. EBITDA margins have increased by about 40 percentage points, to almost 45% as of 2017. The company also used some of the

proceeds from asset sales to strengthen its capital structure, and it paid out more than \$1.2 billion in dividends from 2008 to 2018. ERG's share price has increased 46% since late 2007, compared with a decline of 26% for the benchmark EURO STOXX Oil & Gas 500 and S&P Global 1200 Energy indices. (See Exhibit 6.) The total shareholder return for ERG during the past ten years, including dividends, was 171%.

In hindsight, there were several factors behind the company's success. First, management had the foresight to take bold action early on: even though oil assets had accounted for most of the company's revenue throughout its history, ERG shed them when the extent of the crisis was still unclear, ensuring a prompt repositioning for the long term. Second, the company adequately funded the turnaround, using the disposal plan to guarantee cash for its growth in the new core sector. Finally, ERG put the right organizational measures in place to sustain performance throughout the turnaround and over the long term.

As a result, ERG is now a leader in renewable-sourced electricity, and its shareholders have been richly rewarded.

EXHIBIT 6 | ERG's Turnaround Has Led to a Rebound in Profit Margins and Shareholder Return



Sources: ERG; BCG analysis.

Note: Based on the exchange rate as of July 18, 2018: 1 euro = 1.1656 USD. PP = percentage points.

# VISTRA ENERGY RESTRUCTURES ITSELF AND INVESTS IN INNOVATION

**T**EXAS-BASED VISTRA ENERGY, WHICH operates in 12 states, delivers energy to nearly 3 million customers, using a mix of natural gas, coal, nuclear, and solar facilities to provide about 41,000 megawatts of generation capacity. Vistra was formed in October 2016 after its parent company went through a protracted bankruptcy process. That company had been formed through the largest leveraged buyout in US history, but the deal left it with about \$40 billion in debt, which was impossible to service when energy commodity prices fell far below historical averages in the early 2010s. Vistra was created with much lower debt levels and diversified, low-cost operations.

Immediately after the bankruptcy proceedings, the company underwent a corporate restructuring, moving from a siloed operating model to a unified organization with a centralized leadership team and common objectives. New governance structures were put in place to enable making more consistent and rigorous corporate decisions, with an emphasis on capital allocation and risk management.

In addition, management immediately launched a turnaround effort to reduce costs and improve performance across the entire organization. The company decreased the size of the workforce by more than 500 employees and streamlined support functions, leading to a significant reduction in spending on outsourced vendors. An operational improvement program was also launched within Vistra's power-generation business to improve performance and drive efficiency on a plant-by-plant basis. By 2017, Vistra had cut general and administration expenses by more than 40% and operating expenses by 11%.

In all, the company managed to reduce costs and enhance EBITDA by approximately \$400 million per year, exceeding the original target by \$40 million, without any reduction in service levels, customer satisfaction, or safety standards. Continued improvements to the balance sheet allowed the company to scale down its borrowing costs on credit facilities and improve free cash flow by roughly \$66 million a year. Following



## Vistra is poised to capitalize on the new technology platform and back-office infrastructure.

these collective efforts, Vistra's cost structure was among the lowest of its competitive peers.

Next, the company rolled out new offerings for its retail business, known as TXU Energy. For example, in 2017 the company introduced an innovative "Free Nights & Solar Days" plan to residential customers and built a 180-megawatt centralized solar facility to support this unique offering. Customers on the plan use renewable solar energy during the peak daylight

hours—without having to put panels on their own rooftops—and get free electricity at night.

Technology investments have yielded additional results by strengthening customer relationships. A significant digital initiative over the past several years allowed the company to roll out energy dashboards and mobile apps that help customers to better control their energy usage through easier interactions with TXU Energy. For example, customers can link their thermostats and account information to their Amazon Alexa platforms and control everything with voice commands.

The technology investments improved internal operations as well. Most customer service interactions are completely virtual through the company's app, website, e-bill service, or interactive voice recognition tools. The company's IT platform now encompasses a new customer relationship management platform, enterprise data and analytics, and improved customer services, which collectively result in a far more flexible and nimble technology services model with lower costs. Vistra is now poised to capitalize on the new technology platform and back-office infrastructure as it grows its retail presence in the Midwest and Northeast retail markets.

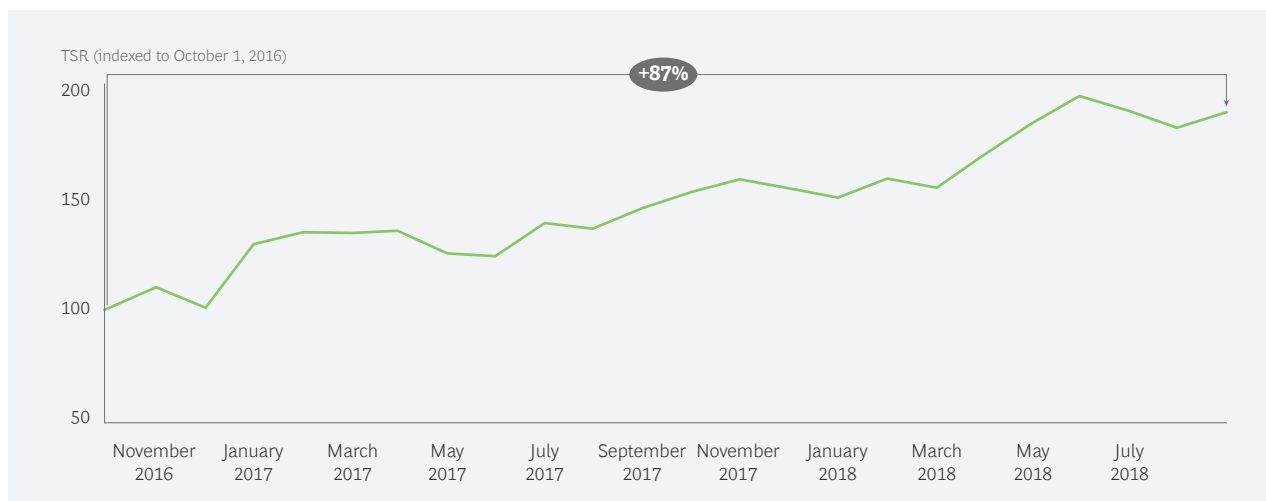
After the bankruptcy, Vistra began trading over the counter, and the company was listed on the New York Stock Exchange in May 2017. Since the restructuring, Vistra has delivered a total shareholder return of nearly 90%, including a special dividend the company paid in December 2016. (See Exhibit 7.)

In 2017, the company acquired Dynegy, one of Vistra's largest peers, forming the largest competitive integrated power company in the US. The combination offers significant synergies, as Vistra is on track to deliver \$500 million of additional EBITDA per year, along with annual after-tax free cash flow benefits of \$285 million and tax savings of \$1.7 billion. The deal also allows Vistra to expand into a new set of US markets, diversifying its operations and earnings, reducing its overall business risk, and creating a platform for future growth.

Moreover, the addition of Dynegy further supports Vistra's shift toward a more modern power-generation fleet based on natural gas, which is more flexible and efficient than traditional sources, such as coal. That deal came on the heels of another acquisition—a large, gas-fueled pow-



## EXHIBIT 7 | Since Emerging from Bankruptcy, Vistra Has Delivered a Total Return to Shareholders of Nearly 90%



**Sources:** Company filings; S&P Capital IQ; BCG analysis.

**Note:** Includes special dividend paid in December 2016; equivalent share price for emergence approximated on the basis of bond trading prior to OTC listing. TSR = total shareholder return.

er plant in west Texas—and Vistra also retired some coal-burning facilities. In all, the company’s profile has evolved from using coal to supply approximately two-thirds of its power-generation needs to using natural gas and renewables for more than half.

In a recent conference call with analysts, Vistra CEO Curt Morgan discussed the company’s business model and the value-creation opportunity presented by the merger with Dynegy. “We are optimistic about the future of our company and the ability to create superior shareholder value for investors,” Morgan said. “We believe our overall strategy of low-leverage, low-cost integrated business operations and disciplined capital allocation is the winning formula for companies like ours and will lead to long-term shareholder value.”

The company has continued to innovate in new areas to fuel growth. For instance, in an effort to appeal to a younger demographic, TXU Energy has rolled out a digital product platform for customers who live in apartments, allowing them to choose the right plan for their particular needs and easily adjust to changing circumstances in their lives. The company also recently announced an organic retail growth strategy in markets outside Texas and is entering the energy storage market, developing a battery project in Texas at its solar site and launching the world’s largest battery project in the solar-power-rich California market.

Overall, Vistra has established a strong balance sheet and, through multiple decisive moves, has led the change in the competitive generation and electric retail landscape. The company’s turnaround has led to significant cost efficiencies (it now has the lowest-cost business in the industry); the creation of higher-value, integrated, and diversified operations; an innovative, customer-centric retail business; and substantially lower risk. Through these measures, Vistra has positioned itself to sustainably create value for its shareholders in a very competitive industry.

# ECOPETROL BOOSTS EFFICIENCY, CUTS COSTS, AND INVESTS IN DIGITAL

IN 2014, GLOBAL OIL prices fell by more than 50% due to increased production from newly accessed unconventional sources in the US and a decision by OPEC to maintain current production levels despite slackening demand in China and Europe. Virtually all oil companies worldwide were hit hard by the decline, but Colombia-based Ecopetrol also faced its own set of unique challenges. Environmental protests in Colombia, pressure from communities near oil-drilling sites, and attacks on the company's infrastructure all affected Ecopetrol's operations. As a result, the company's profitability started to erode, ending more than five years of very solid growth.

In this context, Ecopetrol's management launched a five-year turnaround program aimed at shifting from volume to value and sustainability. Specifically, the company wanted to unlock new oil reserves, recover more oil from sites in the current portfolio, increase efficiency, and double EBITDA margins, all by 2020. The company set ambitious targets, and it focused on strict capital discipline. It also put in place a transformation office, directly overseen by the CEO, to closely monitor the overall implementation.

The program began with a broad set of measures to boost efficiency and increase operating margins. In the field, it launched efficiency initiatives in drilling, operations, maintenance, and transportation. Core exploration and production processes were simplified. The efforts paid off: cost per foot drilled (a key metric in the industry) was reduced by 51% from 2014 to 2018, and lifting cost (which measures the cost to produce oil, excluding drilling) declined from \$11.30 per barrel to \$7.30 per barrel.

Ecopetrol also streamlined the organization, restructured the management team, and scaled back on low-value-added items. It implemented a



The company set ambitious targets, and it focused on strict capital discipline.

new procurement model that led to an 87% drop in contract management cost from 2014 to 2017.

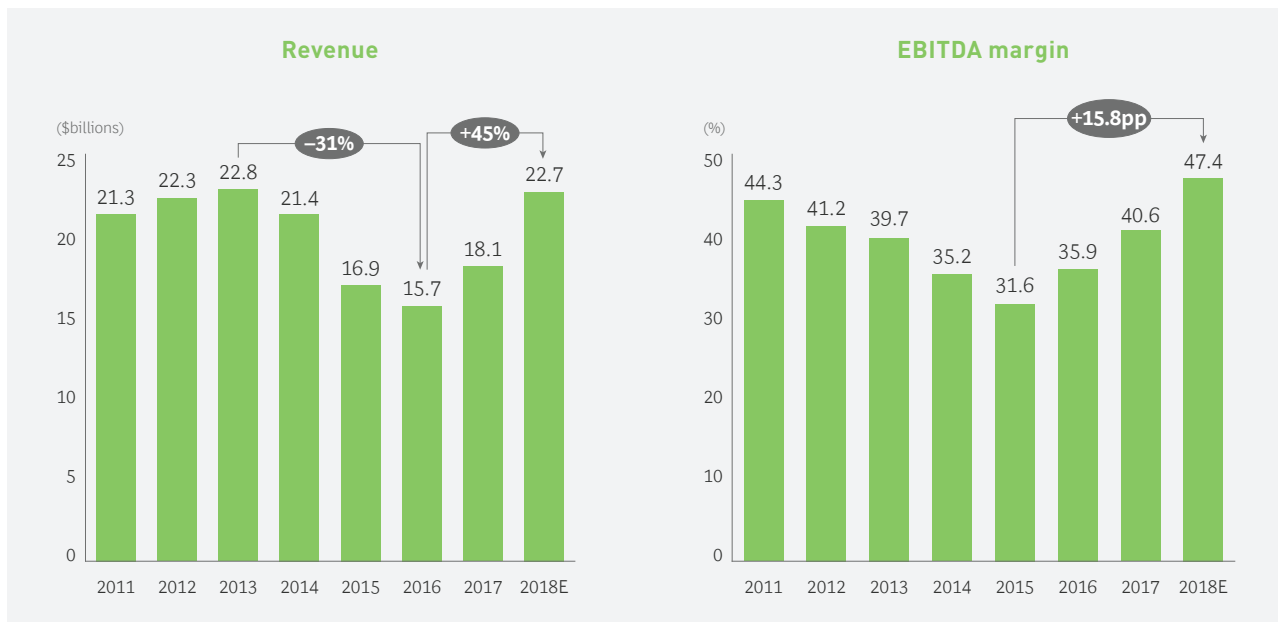
At the end of the program's first year, total savings came to nearly \$765 million; and only two years after kickoff, in 2017, the savings reached \$1.9 billion.

As part of the strategic plan, Ecopetrol divested its noncore assets. For example, it relinquished its stake participation in two power transmission and distribution companies, ISA and Empresa de Energía de Bogotá, for roughly \$180 million and \$371 million, respectively.

With some of that capital, Ecopetrol kicked off an ambitious digital program to further boost efficiency and simplify operations. The program aims to develop a data repository and to link the company's wells, allowing Ecopetrol to establish benchmarks and improve performance across the production portfolio. Another set of digital tools will help the company ensure quality control in pipelines during transmission as well as detect abnormalities in infrastructure, such as illegal valves that signal black-market siphoning. Digital initiatives will also improve operations in the company's refineries.

The transformation positioned Ecopetrol to benefit as oil prices rebounded, leading to a strong recovery in financial performance. The company's breakeven point dropped from about \$65 to \$70 per barrel in 2015 to about \$35 to \$40 per barrel in 2017. Revenue increased by 15% from 2016 to 2017 and was on track to grow by about 25% in 2018. The EBITDA margin has increased dramatically as well since the transformation took effect, with a projected gain of almost 16 percentage points from 2015 to 2018. (See Exhibit 8.)

EXHIBIT 8 | Both Revenue and EBITDA Margin Have Rebounded Significantly



Sources: S&P Capital IQ; BCG analysis.

Note: Based on the exchange rate as of October 1, 2018: 1 COP = 0.000323635 USD. PP = percentage points.



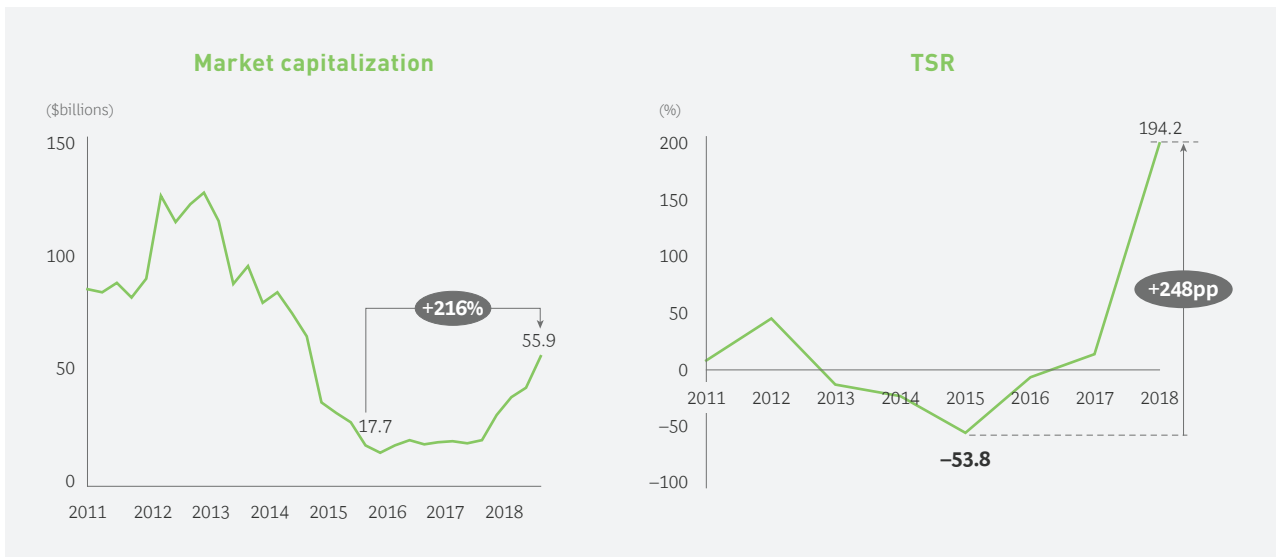
For Ecopetrol, a decline in prices was not an excuse for poor performance but an impetus for a turnaround.

Investors have noticed. Ecopetrol’s market capitalization has grown by 216% since late 2015, and its total shareholder return rose by 248 percentage points over that same period. (See Exhibit 9.)

In the words of the company’s CEO, Felipe Bayón, “Ecopetrol remains focused on operational excellence, value creation, a commitment to ethics and transparency, safety, and care for the environment. The company is committed to profitable growth in production and reserves to deliver results that ensure the company’s sustainability.”

The oil industry is particularly tough because the vicissitudes of oil prices can so sharply affect companies’ performance. For Ecopetrol, a decline in prices—along with other factors—was not an excuse for poor performance but an impetus for a turnaround. Thanks to that effort, the company is now positioned to thrive no matter which direction oil prices move in the future.

EXHIBIT 9 | Ecopetrol’s Turnaround Dramatically Improved Its Market Capitalization and TSR



Sources: S&P Capital IQ; BCG analysis.

Note: Based on the exchange rate as of October 1, 2018: 1 COP = 0.000323635 USD. TSR = total shareholder return. TSR calculation runs from September 30, 2010, to September 20, 2018. PP = percentage points.

# EQUATORIAL BUILDS A TURNAROUND ENGINE TO REVAMP TWO UTILITIES

**E**QUATORIAL ENERGIA, A BRAZILIAN holding company, has a majority ownership stake in subsidiaries that handle power generation, transmission, distribution, trading, and other energy-related services. Equatorial was founded in 1999, but many of its underlying businesses have been around much longer. Currently, the vast majority of the company's revenue (97%) comes from two distribution units: Companhia Energética do Maranhão (CEMAR), which was privatized in 2000 and ultimately became Equatorial's first major investment some years later, and Centrais Elétricas do Pará (Celpa), which Equatorial purchased in late 2012.

Both units were in dire need of one of Equatorial's key management capabilities: the swift execution of turnarounds. In the case of Celpa, problematic operation and financial conditions before the acquisition had left the company in a perilous position, and regulators ultimately intervened. (CEMAR required a regulatory intervention as well.) Equatorial bought Celpa for the symbolic amount of \$1 and assumed \$789 million in total debt.

After closing both the CEMAR and Celpa acquisitions, Equatorial launched a program to streamline operations, reducing both headcount and outsourced services. Management also fostered a meritocratic culture, which later resulted in the company being included on a list of the great places to work in Brazil in 2017.

Equatorial also invested to expand power capacity and recovery in both networks and to improve the reliability of the power supplied. For example, in 2014, it dramatically increased Celpa's total investments in equipment and systems, going from \$800,000 in the prior year to \$15.5 million, and boosted spending on grid maintenance from \$2.6 million to \$22.4 million. Another round of investments in 2016 helped Celpa integrate some systems that had been operating independently. By the end of that year, power interruptions on the Celpa network had declined by nearly 70%.

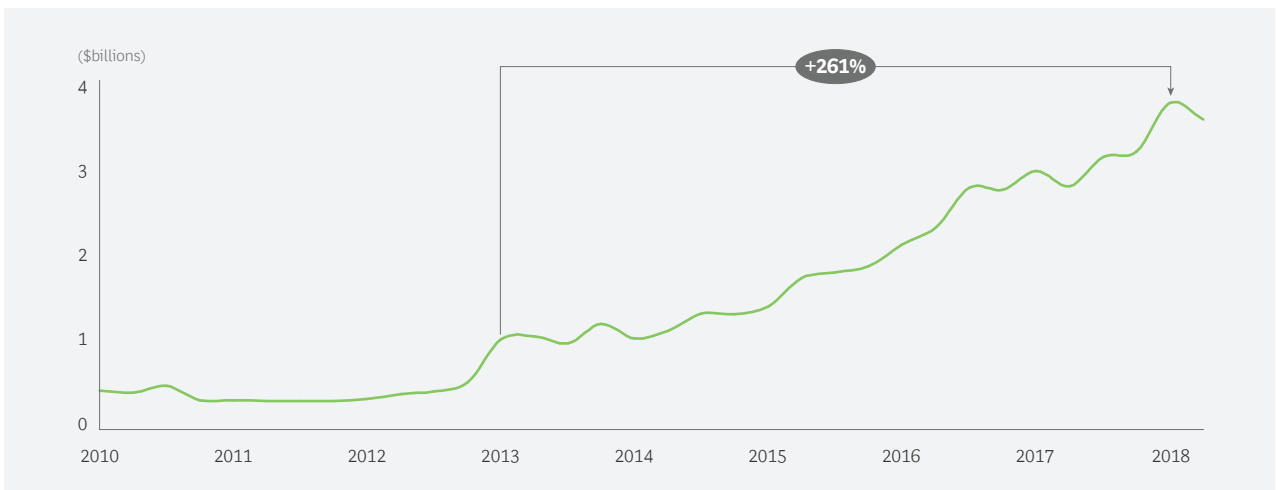
Another plank of the turnaround was a fast reduction in the rate of unpaid customer electricity bills, known as delinquencies. In CEMAR, losses were reduced from about 33% net income in 2002—one of the highest rates in the country—to about 15% beginning in 2010, in line with its peers.

At the same time, Equatorial launched a series of digital initiatives across its portfolio companies. A new IT system and a data center allowed Equatorial to automate processes and standardize data management across CEMAR and Celpa. They increased efficiency and reduced both overall costs and the response time for the company to address problems. A new billing system that was linked to the data center helped the company reduce losses caused by inaccurate statements and other problems. And the company created a virtual customer service center and mobile app, allowing customers to handle some requests on their own through self-service options. In all, these measures led to faster internal processes with fewer errors at lower costs.

Since the Celpa acquisition in late 2012, Equatorial’s revenue has increased by a compound annual growth rate of 18%, and EBITDA margins have nearly doubled, from 11.5% to 20.6%. What’s more, the company’s market capitalization has increased by 261%. (See Exhibit 10.)

Equatorial’s success lies in its strong turnaround capability. It is extremely adept at identifying and acquiring troubled assets, using a minimum amount of capital to close the deal and then applying deep financial and operational skills to unlock value quickly. Rather than simply cutting costs, the company focuses on performance aspects that really matter in terms of cash flow: cost-effectiveness, reducing delinquencies and other nontechnical losses, and improving customer service. As a result, both CEMAR and Celpa are now performing well, allowing the company to continue expanding its distribution business, and even diversifying by buying some transmission businesses.

**EXHIBIT 10 | Equatorial’s Market Capitalization Has More Than Tripled Since the Celpa Acquisition**



**Sources:** S&P Capital IQ; BCG analysis.

**Note:** Based on the exchange rate as of August 10, 2018: 1 BRL= 0.2588 USD.

# ENERGISA MAKES THE VOLATILE BRAZILIAN MARKET WORK IN ITS FAVOR

**F**AMILY-CONTROLLED ENERGISA IS THE fifth-largest power distribution company in Brazil. Founded 111 years ago (and publicly traded for the past 105), the company has a portfolio of nine distribution businesses that serve several Brazilian states.

In 2013, power distribution accounted for more than 80% of the company's sales and profits. But then a set of circumstances hit the Brazilian power generation industry hard: New regulations reduced electrical charges for companies and changed the way the government supported the electric utility industry. And delays in upgrades to power generation and transmission infrastructure hurt the overall power industry in Brazil. Despite these challenges, Energisa saw an opportunity to consolidate Brazil's distribution business and create significant value from undervalued assets—something it had done successfully in the 1990s.

A competing distribution company called Grupo Rede presented a key opportunity. Grupo Rede was twice the size of Energisa, and was actually under the oversight of regulators after going into receivership. By the second half of 2013, Energisa stepped in to buy Grupo Rede, outcompeting larger and more experienced bidders in part by offering a better deal for Grupo Rede's debt holders. The deal added \$1.5 billion to Energisa's debt load, which more than doubled it. (Although the company's situation was controllable, thanks to the financial package structured for the deal, credit agency Fitch Ratings downgraded Energisa's rating based on the debt levels.) The acquisition was a strategic move, reflecting a trend of consolidation in Brazil's power-distribution industry, but it put a significant strain on the company.

By April 2014, Brazilian power regulators and the bankruptcy court authorized



The acquisition reflected a trend of consolidation in Brazil's power-distribution industry.



## Energisa recently scored the highest customer satisfaction ratings among all utilities in the country.

Energisa to take control of Grupo Rede. Energisa quickly restructured Grupo Rede's debt to longer terms at lower costs and immediately launched a broad-based turnaround for the business, with several objectives. First, it invested nearly \$400 million in 2015 to upgrade the distribution network—a necessary step to reduce operating and maintenance costs. More than 60% of that investment went to quality and safety initiatives. Energisa also reviewed its portfolio, selling off some power-generation facilities in order to raise cash and focus on distribution. It

used some of the proceeds to settle some of the debt it acquired with Grupo Rede, creating a more manageable balance sheet.

Throughout the turnaround, Energisa has been steadily investing in technology to strengthen its operating model, capitalize on synergies, and improve efficiency and service levels. Specific initiatives include the following:

- **Operational Processes.** Energisa standardized processes through an internally developed enterprise resource planning system that centralizes all of the company's operating activities, including customer requests and assistance provided by the field force. By centralizing and standardizing these activities, the company has generated sizable gains in efficiency while also improving safety. Seven of its distribution units recently won safety commendations, and one went more than two years without a work-related incident.
- **Shared Services.** To reduce costs and increase efficiency, the company opened a shared-services center, one of the largest in Brazil, to handle group-wide administrative functions through standardized, efficient processes.
- **Supply Chain Management.** Energisa partnered with a software company to create tools that would improve the company's ability to predict and mitigate risks related to the procurement of materials by understanding the financial, fiscal, employment, sustainability, and social aspects of its vendors and providers.
- **Loss Prevention.** Another internally developed system continues to help the company inspect consumer units in an effort to reduce power delinquency and fraud, a significant problem in Brazil. Today, Energisa is an industry leader in this area.
- **Customer Service.** Energisa redesigned its customer interactions, unifying phone, email, chat, and social media contacts into a single system and operating its own customer contact center, including personalization tools for each customer account. Since the new system has been in place, customer satisfaction has improved significantly, and Energisa recently scored the highest such ratings among all utilities in the country.



- **Culture and Branding:** Within a year of the acquisition, Grupo Rede was completely rebranded under the Energisa name. All employees were trained in Energisa’s core values, mission, and purpose. And Energisa introduced a revamped management system based on integration KPIs to unify management practices across the entire organization.



These measures have dramatically boosted revenue, up nearly 70% since the acquisition.

Overall, these measures have dramatically boosted revenue, up nearly 70% since the Grupo Rede acquisition. Capping off the turnaround, Energisa accessed the capital market again, through a second IPO on Brazil’s Bovespa exchange in early 2016, the first utility to do so in more than three years. Energisa used some of the proceeds to further pay down debt and continue its strong investment and modernization plans. And the stock has performed well since the IPO, pushing the company’s market capitalization up 244% through early 2018. (See Exhibit 11.)

In August 2018, Energisa won an auction to acquire and privatize two distribution operations in northern Brazil and add nearly 1 million customers. Both assets have significant improvement potential, and Energisa may be able to replicate the turnaround success it had with Grupo Rede.

“We remain relentlessly focused on our dream of being a leading player in the power sector,” said Energisa CEO Ricardo Perez Botelho. “We aspire to grow and achieve leadership in our industry across four aspects: customer satisfaction, safety, workplace climate, and profitability.” Thanks to an ambitious vision and a well-executed turnaround, Energisa is accomplishing these goals.

EXHIBIT 11 | Energisa’s Market Capitalization Has More Than Tripled Since the Company’s IPO in Early 2016



Sources: S&P Capital IQ; BCG analysis.

Note: Based on the exchange rate as of October 1, 2018: 1 BRL = 0.268 USD.

# FOR FURTHER READING

The Boston Consulting Group has published reports and articles on related subjects that may be of interest to senior executives. Examples include those listed here.

## **The Comeback Kids: Lessons from Successful Turnarounds**

A report by The Boston Consulting Group, November 2017

## **The Transformations That Work—and Why**

A Focus by The Boston Consulting Group, November 2017

## **Desperate Times Call for Effective Turnarounds**

An article by The Boston Consulting Group, November 2016

## **Transformation: Delivering and Sustaining Breakthrough Performance**

An e-book by The Boston Consulting Group, November 2016

## **A Leader's Guide to "Always-On" Transformation**

A Focus by The Boston Consulting Group, November 2015

# NOTE TO THE READER

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