

## **Enel Group's Global Strategy: A Case Study**

**Cagen Johnston**

CUNY School of Professional Studies  
USA

**Herbert Sherman**

Long Island University  
Brooklyn Campus  
USA

### **Abstract**

---

*The purpose of this case study is to conduct a strategic analysis of the Enel Group, an Italian multinational company involved in generating energy, selling gas, and distributing electricity in 32 different countries— making it one of the world's largest integrated electricity and gas operators in 2021. A description of the firm will first be presented, including Enel's mission, vision and objectives, and the firm's generic strategy. This description is followed by a series of strategic analyses including; macro-environmental, industry and internal analyses (i.e. VRIO, value chain and functional). These analyses are integrated through SWOT analysis followed by a discussion of implementation and environment/strategy alignment issues. The analysis culminates with a series of suggestions for improving the Enel Group.*

---

### **Introduction**

Enel Group is an Italian multinational company involved in generating energy, selling gas, and distributing electricity in 32 different countries— making it one of the world's largest integrated electricity and gas operators (Enel, n.d.). In 2018, Enel was the second-largest power company in the world by revenue (\$85.28bn) (PowerTechnology, 2019). The Group has over 73 million end-users across the globe, a capacity of more than 88 GW, and a network that spans around 2.2 million kilometers (Enel, n.d.). Enel was originally created as a statutory corporation (i.e. a company created by a Special Act of Parliament) in 1962 in Italy to provide energy for the country's development. Once Italy's energy market was liberalized, Enel was transformed into a private company; in 2004 the firm was the first admitted to the Dow Jones Sustainability Index and in 2008 the Group launched Enel Green Power (Enel, 2016). As a leader in the development of renewable energy, the firm created the world's first grid-connected solar field in 1981 (Enel, 2016). The Group continues to expand into new sectors and markets such as electric mobility, energy storage & big data technologies, and smart cities (Enel, 2016).

### **Enel's Mission, Vision, and Objectives**

Enel has outlined a vision and mission statement that guides the firm's operations and outlines its objectives to support the long-run stability and inform the strategy of the firm; Jack Welch, former GE CEO, believes that good leaders create, articulate, and own their vision, driving it to completion (Ireland, Hoskisson, & Hitt, 2011).

- **Enel's Vision:** Enel's vision is simple, "Open Power to tackle some of the world's biggest challenges" (Enel, 2020). Enel Group's new vision, *Open Power*, aims to help solve the world's challenges by "bringing energy for more people through new technologies, stimulating new ways of managing it for the consumer, opening it to new uses and forming a network of research, technology and development collaborators that will bring new solutions to build a future of progress for all" (Enel, 2020).
- **Mission:** "Open access to electricity for more people, open the world of energy to new technology, open up to new uses of energy, open up to new ways of managing energy for people, and open up to new partnerships" (Enel, 2020).
  - *Open energy to more people:* "We will use and extend our global reach and scale to connect more people to secure and sustainable energy, with a special focus on Latin America and Africa";
  - *Open energy to new technologies:* "We will lead the development and deployment of technologies to generate and distribute energy more sustainably, with a special focus on renewables and smart grids";
  - *Open up new ways of managing energy for people:* "We will develop more services built around people's needs to help them use and manage energy more efficiently, with a focus on smart meters and digitization";
  - *Open up energy to new uses:* "We will develop new services that use energy to tackle global challenges, with a focus on connectivity and e-mobility";
  - *Open up to more partnerships:* "We will unite a network of collaborators in research, technology, product development, and marketing to build new solutions together" (Enel, 2020).
- **Values:**
  - *Trust:* "We always act in a competent, honest, and transparent manner, in order to gain the trust of our colleagues, customers, and partners, enhancing our personal differences. We return their trust through our confidence in their ability to create value that we can share";
  - *Innovation:* "We live and work with curiosity, we strive to go beyond our customs and we overcome our fears, in order to open energy to new uses, technologies, and people, learning from each other and taking to heart our failures as well as our successes";
  - *Responsibility:* "Each of us, at any level, is responsible for the Group's success. We devote our energy to serving people's needs, improving life and making it more sustainable";
  - *Proactivity:* "We feel personally responsible for our work. We continuously interpret global scenarios and challenges in order to anticipate change, resetting our priorities if the context requires it" (Enel, 2020).
- **Objectives:** Enel's Open Power approach has a broad objective that guides all of the Group's activities: sustainability (Enel, 2020).
  - The firm has become part of the United Nations Global Compact Board with a commitment to contribute to 4 of the UN's Sustainable Development Goals (SDGs) including "access to clean and affordable energy, the promotion of innovation, sustainable industrialization and resilient infrastructure, the creation of sustainable cities and communities, and climate action, with a view to achieving carbon neutrality by 2050" (Enel, 2020).
  - The firm has also prioritized the objectives of decarbonizing the energy sector, digitalizing networks, extending the use of sustainable finance instruments, creating new services and infrastructure, and further developing ecosystems and platforms (Enel, 2019).

### **Enel's Generic Strategy - Differentiation**

Organizations employ generic strategies to focus their efforts to satisfy a group of customers by creating value (Ireland, Hoskisson, & Hitt, 2011). A firm's generic strategy creates a "defensible competitive position in the market allowing the firm to gain a competitive advantage" (Ireland, Hoskisson, & Hitt, 2011). Enel Group has chosen to employ a differentiation strategy, in which it creates value for customers by sustainably generating and supplying energy to a broad market (30+ countries), "2015 marked a revolution in the Group's business model with the abandonment of large-scale investment in conventional power plants in favor of more flexible growth, principally in the renewable energy sector" (Enel, 2019).

We can see evidence of the Group's differentiation strategy through the value it has created for both consumers and shareholders which has allowed the Group to become a "global leader among private operators" in terms of the number of users connected to its network, boasting "the largest customer base of retail clients" (Enel, 2019). The Group's differentiation strategy has also made Enel the number one leader in terms of capitalization among Italian companies and European utilities, "Enel saw a 14.8% year-over-year increase in market value, to €57.99 billion" and "received upgrades . . . from Fitch Ratings for strong operational and financial results from 2015 to 2018" (Dholakia, Khan, Rack, 2019).

In 2015, Enel was able to reach a record target of 1 GW of new renewable capacity installed in a single year, which was subsequently increased to 3GW by 2018, resulting in a total renewable installed capacity of 46 GW and confirming Enel Group as the largest renewable player at a global level (Enel, 2019; Enel, 2020; Deign, 2019). The new capacity, built in 2019 and including around 47 facilities, will avoid the annual emission of "5.85 million tons of CO<sub>2</sub> into the atmosphere", and is distributed as follows:

- "Around 1,072 MW in Europe, mainly in Spain;
- approx. 997 MW in Latin American, mainly in Mexico;
- about 876 MW in North America, mainly in the US;
- around 94 MW in Africa, Asia, and Oceania, mainly in South Africa" (Enel, 2020).

By outlining a generic strategy to focus the firm's effort, Enel was able to exceed all of its 2015-2019 targets: EBITDA reached 17.8 billion euros (20.9 bn USD), exceeding the target of 17 billion; operating efficiency reached 1.5 billion euros, compared to the 1.1 bn target; and shareholder return during that period exceeded 130% (Enel, 2019). At the end of 2019, Enel Group's operating income per share was .68 euros, its' net EPS was .21 euros, while net ordinary EPS was .47 euros (Enel, 2020). The euro-area utility segment closed up 22.2% in 2019 while Enel closed up 40.2% on the previous year, nearly double the performance of the sector index (Enel, 2020). Going forward, with the 2020-2022 Strategic Plan, the Group plans to further develop its sustainably driven strategic approach:

- Of the 28.7 bn euros of total investment planned for the next 3 years, 95% will be designated toward projects that help achieve the four SDGs (aforementioned);
- Enel plans to invest 14.4 bn euros towards further decarbonization, primarily in developing its green power portfolio:
  - Forecasted total of 14.1 GW of new developed renewable capacity from 2020-2022, bringing the percentage of renewables in terms of overall installed capacity to 60%
  - The goal of reducing CO<sub>2</sub> emissions by 70% by 2030 (compared with 2017 levels);
- Around 1.2 bn euros to be invested to encourage the electrification of consumption, "leveraging the growth of the retail client base";
- 13 bn euros will be put towards enabling factors for "the energy transition: network infrastructure, ecosystems, and platforms";
- Enel will continue to invest in digitalizing networks, increasing the number of 2nd generation smart meters installed to 29 million (from 13 million) from 2020 to 2022;
- Enel will reduce the average cost of finance from 4.2% to 3.8% by 2022 extending the use of sustainable finance (e.g. bonds linked to the SDGs) instruments to cover total debt;
- Through Enel X, the Group will install approx. 650 thousand new public and private electric vehicle charging points, "increasing capacity of demand response managed up to 10.1 GW and storage systems up to 439MW" (Enel, 2019).
- Goal to expand Enel's global wind portfolio from 8 GW to 14 GW and solar generation from 2 GW to 5 GW by 2021, while decreasing thermal capacity by 15% (primarily by retiring coal plants) (Deign, 2019).

Enel's strategy, by focusing on sustainability, has enabled the Group to do three things according to Starace, the CEO, "one is to kick up an innovation curve that otherwise would not be possible to start; the second is to avoid mistakes - we ruled out a lot of projects because of the lack of sustainable content in them; and third, it reduced the cost of financing through the results of these sustainable development bonds" (Enel, 2019). This statement highlights how a firm's choice of generic strategy acts to focus the firm's efforts and guide business decisions to create value.

As a result of the most recent plan, driven by the firm's generic strategy, Enel's EBITDA will reach 20.1 billion euros in 2022, a 13% increase on the 17.8 billion euros in 2019, and the Group is expected to increase net profits income by 27% to 6.1 billion euros in the same time frame (Enel, 2019).

### Environmental & Industry Analysis

The first part of our analysis begins by examining the external forces that impact Eni: macro-environmental, industry and competitor.

#### Macro-environmental Analyses

As Enel notes, "due to the nature of its business, the Group is exposed to a variety of risks, notably financial risks, industrial and environmental risks, strategic risk connected with the evolution of markets and risks connected with sustainability and climate change" (Enel, 2020). In order to effectively manage those risks, Enel must analyze the macro-environmental factors that impact the firm, which can be further utilized to later identify potential opportunities, and threats.

- **Political:** The global impact of COVID-19 has led to significant increases in sovereign debt and protectionist policies which are expected to have a continuing effect on world trade as well as long-established supply chains, and might fuel tensions between various countries, such as the United States and China (Enel, 2020). Additionally, Enel Group must consider the political risks such as the US election, the aftermath of Brexit, and tension in the Middle East (Deloitte, 2020). As a major operator in Latin America and a new player in Africa, Enel must be able to navigate the polarization and discontent in these societies; as anger over slow growth, corruption, and poor public services increase, there is expected to be high political instability which could impact the industry Enel operates in (Bremmer, 2020). Other political factors include a more independent Europe, which could generate friction with the US and China, and the decoupling of the US-Chinese tech sector, which has begun to affect the broader economy and resulted in growing tensions (Bremmer, 2020).
- **Economic:** As a global operator, who derives over 50% of its total revenue abroad, Enel must analyze the global economic environment as well as the regions (South America, North America, Europe, and Russia) in which it operates to assess country risks (Enel, 2020). COVID-19 has had significant economic effects across the globe throughout 2020, characterized by contractions in international trade and travel, "sharp falls in global equity markets, unprecedented capital outflows from EMDEs, rising credit-risk spreads, and depreciation for many EMDE currencies", as well as staggering declines in commodity prices (e.g. extreme plunge in oil prices) (World Bank Group, 2020). After hitting a low in April, Brent oil prices have gradually risen to above \$40 a barrel (towards the end of June) (Enel, 2020). During the first two quarters of 2020, Asian and European LNG gas markets collapsed 70% as a result of "demand shock induced by COVID-19, slowing growth in Asia and Europe, and to the increase in LNG supplies to Europe, which systematically exceeded demand" (Enel, 2020). According to the World Bank Group's *June 2020 Global Economic Prospects report*, the COVID-19 global recession is expected to be the fourth deepest recession since 1870 and the "most severe since the end of World War II" but that global economic recovery is expected to gain momentum next year with output similar to prior recessions (WBG, 2020). Looking at different regions in which Enel Group operates,
  - the US recorded a 30-40% drop in output in the 2nd Quarter of 2020 but as economic activity increased in June inflationary pressures have subsided considerably (Enel, 2020). The United States, along with Brazil, has been the most severely affected based on infections and speed of contagion and is currently experiencing very tense social and political situations throughout the country (Enel, 2020).
  - Activity in Europe and Central Asia is estimated to have a contraction of 4.7% in 2020, though growth is expected to improve in 2021 to 3.6% (WBG, 2020). With regards to the ECA, there is a risk that the pandemic could cause the loss of global value chain linkages, negatively impact human capital developments (impact on learning, dropout rates, etc.), increase debt-servicing costs, and lead to decreases in FDI flows (WBG, 2020). The World Bank Group notes that the most vulnerable economies are likely to be ones that have large outbreaks and supply chain disruptions, those with a "heavy presence of travel and transport industries, and capital intensive sectors such as energy", which is particularly important to Enel Group (WBG, 2020).

- Italy suffered a contraction of 5.4% in the 1st quarter of 2020 and experienced unemployment of 7.8% in May (Enel, 2020).
- The Spanish economy experienced its first recession since 2013 with a confirmed contraction of GDP of 4.1% in the 1st quarter but the labor market is showing signs of recovery since June (Enel, 2020).
- Russia experienced a sharp contraction (9%) in the 2nd quarter and is seeing a sharp decrease in external demand, as well as slowed domestic consumption and investments (Enel, 2020).
- Latin and Central America have seen lagging economic impacts but now show clear signs of recession, with Peru, Brazil, Chile, and Argentina being the most severely economically affected (Enel, 2020). In Latin America and the Caribbean, the economy is projected to contract by 7.2% in 2020 sparking a “resurgence of last year’s wave of social unrest, increasingly adverse market reactions to rising public debt, weaker than expected commodity prices, and persistent pandemic related uncertainty slow the recovery of the services sector” (WBG, 2020). Enel Group should be particularly concerned with the impact of the fall in global commodity prices that are more severely affecting the region and the impact it has on producers. As commodity-producing economies, the region has seen the effect of the United States’ severe contraction through its impacts on “trade and remittance channels” (WBG, 2020).
- Sub-Saharan Africa has been heavily impacted as efforts to contain the virus have heavily disrupted domestic economies while poor growth and drops in commodity prices have heavily impacted exports (WBG, 2020). The World Bank Group expects growth to recover but notes that recovery is vulnerable due to the “weakness of its health care systems, [and] constrained fiscal policy space” (WBG, 2020).

In addition to the economic impacts of COVID-19, Enel is also exposed to financial risks including commodity risk, exchange rate risk, interest rate risk, credit risk, and liquidity risk. The Group has implemented financial risk governance arrangements that are in charge of “setting and supervision of risk management, as well as the definition and application of specific policies” (Enel, 2020).

- **Societal:** COVID-19 has had a profound societal impact across the globe and threatens the future development of human capital and is altering the global labor force (United Nations, 2020). Across the globe, youth are disproportionately unemployed or employed in sectors that put them at high risk to be impacted by COVID-19 (UN, 2020). Additionally, the United Nations reports that over one billion students are physically out of school and that the disruption to education could have long term effects on the quality of education, which eventually impacts the labor pool (UN, 2020). Despite the effects of the pandemic, the world population is projected to reach 9.9 billion by 2050 with rapid population growth and high fertility rates seen primarily in countries in sub-Saharan Africa and Asia (PRB, 2020).
- **Technological:** Technological changes and rapid developments have a large impact on the industry in which Enel operates. Particularly, since the Group is at the forefront of digitalization, Enel should be aware of risks associated with digital technology such as the challenge of developing cybersecurity infrastructure to combat cyber-attacks and threats as well as “risks related to the functioning of the IT systems implemented throughout the Company” and the protection of personal data (Enel, 2020). While Enel is at the forefront of many environmental and technological trends, the Group must be aware of constant changes occurring in the industry such as “smart grids, energy storage, electric vehicle infrastructure, and digitized energy and carbon transactions” (SustainAbility, 2019). Big data and IoT support and offer efficiency improvements for city infrastructure and transportation while electric vehicle technology supports improved grid storage and reduced emissions, with cities leading the way in these innovations,
  - “global spending on smart cities technology is expected to almost double from \$80 billion a year in 2018 to \$158 billion in 2021”;
  - “EV ownership is expected to reach 125 million by 2030” (SustainAbility, 2019).

Trends toward electrification are leading to business model changes by large players, which could potentially threaten Enel’s position and advantage: firms like Statoil and DONG Energy have changed their name to shift away from fossil fuels, Shell has made large investments in electricity and EVs, and Total is becoming competitive in gas and electric solutions (SustainAbility, 2019). Meanwhile, according to the 2019 Sector Report, blockchain technology is expected to spur innovation such as peer-to-peer energy trading and the issuance of Renewable Energy Credits (RECs) which help decentralize transactions (SustainAbility, 2019).

- **Legal:** Enel understands that it “operates in regulated markets and that changes in the rules governing operations” and requirements with which Enel must comply have a direct impact on the Group’s operations and performance. To mitigate legal and regulatory risks presented by various governments, Enel has developed “close relationships with local governments and regulatory bodies, adopting a transparent, collaborative and proactive approach to tackling and eliminating sources of instability in regulatory arrangements” (Enel, 2020). Enel should be aware of the implementation of Community Choice Aggregation (CCA) programs in the US which allow communities to “choose their electricity and natural gas sources and aggregate procurement” and as of the end of 2019 8 states had approved these programs with more considering them; these programs also focus on renewable energy and sustainability (Deloitte, 2020).
- **Environmental:** The oil & gas/utility industry and similar sectors have a very direct relationship with environmental impacts and outcomes and are continually shaping the environments in which they operate. In 2015, Enel made the strategic decision to adopt a “sustainable, integrated business model” to combat the threat of climate change (Enel 2019; 2020). For that reason, to maintain a strategic position, Enel Group will be particularly concerned with environmental factors affecting the regions in which they operate or plan to operate:
  - The EU has struggled to maintain its momentum in reducing emissions, largely due to “Germany failing to transition away from coal”;
  - China has continued to heavily invest in renewable energy and supporting infrastructure but still sees emissions climbing for the next decade;
  - “Global impacts to urban environments are currently estimated at \$314 billion each year. . . heat waves hit Europe in 2018 [] reducing power generation from wind turbines, highlighting the urgent need for more investment in climate-resilient energy infrastructure and agriculture” (SustainAbility, 2019).

Due to the nature of the industry in which Enel operates, Enel must be very aware of risks with models that have negative environmental impacts or those which exploit scarce natural resources (e.g. water), the increased environmental regulation by governments, and incentives to eliminate technologies that are not considered sustainable (Enel, 2020). Additionally, credit rating agencies suggest that they will begin factoring in climate risk in credit assessments (Deloitte, 2020).

### **Industry Analysis (Five Forces Model)**

The Five Forces Model is a framework that helps classify and analyze an industry’s environment by identifying the competitive forces which influence profitability potential, including rivalry among existing firms, the threat of substitute goods or services, the threat of new entrants, and the bargaining power of suppliers and buyers (Ireland, Hoskisson, & Hitt, 2011). Each of the forces impacts the ability of a firm like Enel to earn profits in an industry; by understanding these forces Enel can maximize profitability and build a sustainable competitive advantage by developing a strategic position in the electric utility industry (Ireland, Hoskisson, & Hitt, 2011; Fern Fort University, n.d.).

- **Potential Entrants:** New entrants are a threat to firms in an industry because they can take market share away from current competitors and bring additional production capacity (which can lead to over-capacity thus putting downward pressure on prices and lowering returns for firms) (Ireland, Hoskisson, & Hitt, 2011). Firms in an industry can develop barriers to entry that make it difficult for new firms to enter an industry such as economies of scale, which reduce costs a firm incurs to produce additional units of a good; capital requirements, which can make it very costly to successfully enter an industry; high switching costs, which make customers less likely to switch between firms; differentiation, or the ability of firms to uniquely serve customers’ needs, thus reducing the likelihood of customers switching to a new firm; access to distribution channels; and government policy which can make entering the industry more challenging (Ireland, Hoskisson, & Hitt, 2011). The utility industry has very high barriers to entry, which reduces the threat of new entrants. The utility market is a highly regulated industry that creates high legal barriers to entry (e.g. license restrictions and fees) as well as technical barriers such as sunk costs (Regulation Body of Knowledge, n.d.; Roberts, 2015). Past technological developments such as steam turbines and alternating current have created a natural monopoly due to enormous economies of scale and very high capital requirements for market entry (Roberts, 2015). While Enel Group has a low threat of brand new entrants, as a global organization, Enel should be concerned with established firms who are simply entering new markets that could capture market share where Enel is already established.

- **Substitute Products:** Products that meet customer needs in different ways than existing products can impact the profitability of a firm in an industry (Ireland, Hoskisson, & Hitt, 2011). In the utility industry, there are several unique substitutes to coal (the traditional method of power generation), both renewable and nonrenewable, such as wind, solar, hydro, natural gas, geothermal, bio-fuel, and nuclear (RITE, n.d.). With there being quite a few cost-effective substitutes to coal as a method for generating power, the threat of substitutes would be considered high in the industry in which Enel Group operates. That being said, Enel Group can (and has) taken steps to combat the threat of substitute products by proactively focusing on renewable energy generation and distribution (product differentiation), being customer-oriented (as opposed to just product-oriented), and developing a strong brand image which reduces the threat of customers switching over (Trivikram, 2016; Enel, 2017)
- **Suppliers:** Suppliers can also impact a firm's ability to maximize profits by increasing the prices of its products or reducing the quality (& selling it at the same price) (Ireland, Hoskisson, & Hitt, 2011). Firms are considered to have high bargaining power when there are few large suppliers and the buying firms' industry is not concentrated, few available substitutes, the buying firm is not a significant customer, the supplier's goods are essential or have high switching costs, or if the suppliers pose a threat of integrating into the buyers' industry (Ireland, Hoskisson, & Hitt, 2011). Due to its size and level of integration, Enel does not appear to have a large threat from the bargaining power of suppliers and instead is able to exert significant control over the actions of its suppliers. Starting in 2018, Enel began extending its sustainability model to its suppliers as a way of recognizing "that sustainability starts at the beginning of activities" making it possible to "avoid waste, improve processes, study product innovation, reduce costs, and raise productivity" (Enel, 2018). Enel acknowledges that the procurement process plays a central role in value creation and has implemented various actions to ensure that suppliers are acting in the way Enel wants, including mapping out individual suppliers, being clear about the Group's expectations, and checking that the message has been received and applied by using questionnaires, self-evaluation tests, and meetings when necessary (Enel, 2018). With Enel's launch of the "Circular Economy Initiative for Enel Suppliers Engagement", the Group tracks materials as they come and leave suppliers in real-time, "having detailed knowledge about the flows of components, environmental impact, and product recyclability" and the ability to "intervene rapidly" (Enel, 2018). Looking at how Enel manages suppliers, we can see that the Group can exert significant control over its suppliers, meaning that the suppliers have low bargaining power over the firm.
- **Buyers:** Consumers also can impact profitability when they have significant power, which tends to happen when they buy a large portion of the selling firm's total output, the selling firm is dependent on the buyers for a significant portion of sales, when consumers can switch to another seller with few switching costs, or when the products are undifferentiated (Ireland, Hoskisson, & Hitt, 2011). Buyers in the utility industry include both commercial and non-commercial customers (e.g. residential, industrial, military, etc.). That being said, due to the nature of the utility industry, customers do not often possess significant buying power, making this a low threat for Enel. For example, as previously mentioned, many geographies permit controlled monopolies meaning that customers may not have the option to switch between sellers without significant costs (e.g. moving to a different location). Additionally, customers cannot go without power and thus have little control over putting downward pressure on prices. Enel Group can combat the bargaining power of buyers by continuing to create a diversified customer base and extending into other energies.
- **Rivalry Amongst Existing Firms:** Competitive rivalry between firms is often based on the degree of differentiation, switching costs, industry growth, strategic stakes, the level of balance between competitors, fixed/storage costs, and exit barriers (Ireland, Hoskisson, & Hitt, 2011). In contrast to competition in other industries, energy utility firms often compete with one another on the basis of acquiring rights to serve a market, being awarded grants, acquiring a stake in government-controlled companies, and winning bids to complete projects (NREL, 2016). Between electrical power firms, there is a moderately high level of competition where governments have deregulated the energy industry (IGSenergy, 2018). That being said, in many countries/states the energy industry is still heavily regulated by the government which limits competition and results in a state-controlled monopoly. For example, in the US, many states have granted utilities exclusive rights to serve specific geographies, which limits competition (IGSenergy, 2018).

Additionally, power supply may usually be viewed as undifferentiated by customers, which increases rivalry; however, Enel Group has capitalized on changing consumer trends that favor renewable energy sources and has been able to differentiate themselves amongst other power suppliers, increasing profitability potential (Enel, 2020). Enel has also attempted to tackle intense rivalry by increasing its customer base (e.g. being the world’s largest renewable energy player) and achieving economies of scale (Enel, 2019).

*Competitors.* Some of Enel’s largest competitors include Eni, Engie, and E.ON. Engie SA is a global energy group based in France with four main business segments (Client Solutions, Renewables, Thermal, and Networks); Eni is an Italian energy utility company that is involved in exploration and production, gas and power, and refining and marketing; and E.ON is a Germany based energy company focused on energy networks, customer solutions, and renewables (Reuters, 2020). Using recent data from Reuters, the following chart shows Enel’s ROE and ROI compared with its major competition:

|                                   | <b>Enel</b> | <b>Engie</b> | <b>Eni</b> | <b>E.ON</b> |
|-----------------------------------|-------------|--------------|------------|-------------|
| <b>Return on Equity (ROE)</b>     | 1.77        | -.30         | -7.25      | 1.36        |
| <b>Return on Investment (ROI)</b> | 2.65        | -.48         | -9.47      | 1.97        |

ROE and ROI are both important ratios to measure performance and profitability— ROE highlights how effective a company is at utilizing its assets to create profits while ROI highlights whether or not a company is generating a positive or negative return on its investments. We can easily see that Enel is generating a higher ROE and ROI compared to its competition, with Engie and Eni generating losses. The aforementioned data highlight how the Group has been able to create value through their differentiation strategy by focusing on renewables.

**Internal Firm Analyses**

Firms conduct internal analyses in order to better understand their resources, capabilities, and core competencies; the analysis also supports a firm ability to develop a competitive advantage and to develop and implement a successful strategy (Ireland, Hoskisson, & Hitt, 2011). As firms seek to understand their internal organization they often conduct a VRIO analysis, value chain analysis, and functional analysis which will help create an objective and comprehensive view of the internal firm. Looking at Enel Group we will conduct each of these types of analyses to gain an in-depth understanding of the firm from the inside which will help us identify strengths or weaknesses within the firm.

**VRIO Analysis**

Ovidijus Jurevicius defines the VRIO framework as a “tool used to analyze a firm's internal resources and capabilities to find out if they can be a source of sustained competitive advantage” (Jurevicius, 2013). For a core competency to lead to a competitive advantage, it must be *valuable*, *rare*, difficult to *imitate*, and non-substitutable [*organized* to capture value] (Ireland, Hoskisson, & Hitt, 2011; Barney, 1991). Using this approach to analyze the internal firm will help determine if the organization has developed a sustained competitive advantage through its resources, capabilities, and competencies. First, we must identify the resources and capabilities that have created core competencies within the firm:

- **Resources:** Enel has both tangible and intangible resources, which are those that can be seen (e.g. technology, equipment, infrastructure, and financial capital) and those that are not physically identifiable (e.g. know-how, human capital at the upper and lower level, company culture, reputation, expertise, and experience), respectively (Ireland, Hoskisson, & Hitt).
- **Capabilities:** Capabilities develop by integrating different resources together and are commonly part of “organizational functions such as marketing, manufacturing, finance”. Enel has integrated many of its resources to develop capabilities in learning (i.e. “generating and generalizing ideas with impact”), a shared mindset/coherent brand identity, superior ability to work across different boundaries both within the firm and with partners, technological integration/development, ability to reinvent the value chain, global distribution channels and practices, and partnerships with governments (Smallwood & Ulrich, 2004).



- **Core competencies:** Core competencies are capabilities that “the firm emphasizes and performs especially well while pursuing its vision” (Ireland, Hoskisson, & Hitt, 2011). Enel has developed core competencies in its ability to innovate (i.e. Enel is at the forefront of process and product innovation in its industry) by emphasizing learning, technological integration/development; supply chain management, by emphasizing its ability to work across different boundaries and successfully build/manage relations with vendors; strategic unity (i.e. Enel Group unified themselves and all of their actions to continuously pursue a coherent strategy); and sustainability, by emphasizing a shared mindset/coherent brand identity, learning, technological integration/development, ability to reinvent the value chain, and its partnerships with governments (Smallwood & Ulrich, 2004; Garcia, Lessard, Singh, 2014).

Next, we can apply the VRIO framework:

- **Valuable:** Are Enel’s resources valuable in that they add value by enabling a firm to “exploit opportunities or defend against threats” or help “increase perceived customer value” (Jurevicius, 2013)? Are Enel’s competencies valuable in that they “create value for the customer, exploit market opportunities, or neutralize threats” (Ireland, Hoskisson, & Hitt, 2011)? Enel’s core competence in innovation allows it to create value and exploit opportunities by meeting customer needs that haven’t been satisfied while simultaneously controlling costs with its technology resources. The firm’s competence in sustainability exploits opportunities regarding the growing climate crisis while also meeting customer’s needs that have not been satisfied. Its strategic unity competence works to defend against threats and creates additional value by emphasizing a shared mindset/coherent brand identity, which sets Enel apart from competitors who often have split identities (i.e. conflicted between pursuing renewables or following old business model, which are mutually exclusive).
- **Rare:** Are Enel’s resources, capabilities, and core competencies rare in that they cannot be acquired by very many other firms, if any, to “complete a task or set of tasks with the same quality as the focal firm” (Ireland, Hoskisson, & Hitt, 2011)? If they are not rare but are valuable, then Enel will have competitive parity as opposed to a competitive advantage (Ireland, Hoskisson, & Hitt, 2011). Some of Enel’s resources, capabilities, and core competencies are in fact not rare in the industry such as its global distribution channels and processes, financial capital, equipment, partnerships with governments, and its supply chain management because they are also held by competitors such as Eni, Engie, and E.ON (Garcia, Lessard, Singh, 2014). However, Enel’s reputation, shared mindset/coherent brand identity, strategic unity, sustainability, ability to innovate, and technological integration/development do appear to be rare in the industry in that few competitors, if any, would be considered to have successfully emphasized and integrated these capabilities and competencies in that way that Enel has. For example, while Enel has made sustainability permeate every function of the organization, other firms, even those who invest in renewables have long argued that these projects offer lower returns (Parnell, 2020). Simply adding renewables to their portfolio does not make a firm sustainable; many firms have only pursued this path very recently and half-heartedly.
- **Costly/difficult to imitate:** Are Enel’s resources, capabilities, and competencies costly, and therefore difficult, to imitate by either duplicating or substituting (Jurevicius, 2013; Ireland, Hoskisson, & Hitt, 2011)? In his work, Barney identified three reasons why resources, capabilities, and competencies are hard to imitate including historical conditions, causal ambiguity, and social complexity (Barney, 1995). Enel is very transparent about how it emphasizes its competence in sustainability, thus the difficulty to imitate it is not likely a result of causal ambiguity, but instead a matter of social complexity, experience, and capital requirements. Competitors could not achieve the integrated sustainability model that Enel has without a huge outflow of capital, making it very costly to imitate, at least for now, because it would require complete divestment from unsustainable energy sources, a complete reworking of networks and infrastructure, and the development of very sophisticated technology. Additionally, Enel’s core competency in sustainability is non-substitutable in that competitors cannot offer something such as customer service or lower costs to satisfy a customer who wants a firm with a fully sustainable business model. On the other hand, Enel’s competencies in innovation, strategic unity, and technological integration/ development lack full visibility and may also be a result of hard to identify intangible effects/attributes such as integrated management, processes, and internal branding, which results in core competencies that are difficult and costly to imitate due to causal ambiguity while also being non-substitutable.

### Value Chain Analysis

By conducting a value chain analysis we are seeking to identify primary and supporting activities that create value for the customer throughout different parts of Enel’s value chain (Ireland, Hoskisson, & Hitt, 2011). By analyzing the value chain we can identify areas that can provide additional value for the customer and it is often used as a foundation for creating a sustainable competitive advantage (Ireland, Hoskisson, & Hitt, 2011).



Figure 1: Enel Group’s Value Chain

Enel Group’s 2020-2022 Strategic Plan has been condensed into a simple equation: “sustainability equals value”; the firm seeks to add value for the customer through sustainability— by looking at the value chain we can effectively see if this is the case or where Enel can improve (Enel, 2019).

### Primary Activities

- Inbound Logistics:** Enel Group’s inbound logistics involve the transport of inputs and human capital (e.g. for construction of infrastructure). Enel Group’s sustainable model, to truly create value for customers and compete successfully, must stretch across the entire value chain. Enel Group has been able to create value by integrating a circular economy across the entire value chain including inbound logistics. Enel does this with a “production and use model based on renewables inputs or previous life cycles” or by using circular inputs and even uses electric vehicles to transport human capital to and from work sites to minimize emissions (Enel, 2019). Additionally, Enel has implemented extensive greenhouse gas monitoring protocol through the entire value chain; in this stage, Enel closely monitors and controls waste and emissions of all storage systems and the steps of acquiring inputs (e.g. purchasing electricity from the network, transport of fuels and raw materials) (Enel, 2019).
- Operations:** Enel Group’s operations are organized into different segments and business lines: renewables/Enel Green Power & thermal generation which combined to create Global Power Generation in 2019, and includes the generation of energy with a focus on accelerating energy transition towards renewables across the Group; infrastructure and networks, which aims to guarantee the reliability of supplying energy by implementing “resilient and flexible networks, leveraging efficiency, technology, and digital innovation”; retail, which is concerned with the sale to end customers and involves interactions with families, industries, and companies; and Enel X, which provides “technologies and innovation for smart energy solutions” by “providing value-added services for customers” (Enel, 2019).

- **Outbound Logistics:** Enel Group is part of an interface as a go-between of distributors and European institutions known as the European Distribution System Operators (E.DSO for Smart Grids) which creates additional value not only by streamlining delivery and creating efficiencies but by “promoting large scale development and the experimentation of technologies” to combat climate change and reach the EU’s climate objectives (Enel, 2019). Enel ensures distribution quality and resilience, leading to long term value creation, by creating a continuous and safe supply of energy; this is achieved by continually increasing the reliability and efficiency of distribution, implementing rapid technological developments into its infrastructure, and focusing on continuous grid development (Enel, 2019). The Group has been able to reach 73.3 million end-users, 44.7 million of which have active smart meters, with 2.2 million km of network (Enel, 2019).
- **Marketing and Sales:** In all the locations that the Group operates, it has set up specific customer service channels including physical, telephone, and online, which are supported by social media channels and apps (e.g. Energia app in Italy), with the aim of keeping customers constantly informed in a way that is “transparent, correct, and effective” (Enel, 2019). Additionally, Enel has made a commitment to reduce indirect emissions associated with “the sale of natural gas on the retail market by 2030” — Enel has extended its commitment to also include indirect emissions, further integrating sustainability measures into their operations (Enel, 2019).
- **Service:** Enel seeks to add value through service in multiple ways. For example, Energia allows customers to access all data (e.g. bills, usage, status, etc.), provides services to activate or change supplies, and offers information about news or promotions, and access to a loyalty program (Enel, 2019). While Energia is only available in Italy, Enel has created unique websites or apps for each of the locations it operates in which allows a more personal, customizable, and culturally appropriate interface for its customers. Additionally, Enel, with Amazon, has developed Homix, a smart home device available in Italy and Spain, that simplifies the life of consumers, reduces waste, and promotes sustainable consumption through “the integrated management of heating, safety, and lighting, in order to optimize times and consumption” (Enel, 2019). In addition to creating value by serving customers directly, Enel also has value-creating activities involved with the service and maintenance of infrastructure and networks. Prior to any installation done by the Group, it conducts an impact study which includes an in-depth assessment of the effects on “biotypes, animal and vegetal species with the aim of avoiding operating in areas with the highest biodiversity values and adopting the best solutions to decrease the pressures on biodiversity elsewhere” (Enel, 2019). As part of the circular economy, Enel approaches the management of its products to extend its useful life by facilitated reparability, predictive maintenance, and real-time monitoring; additionally, artificial intelligence, machine learning, and drones assist in the real-time monitoring of infrastructure and the ongoing maintenance of such, which limit and reduce the duration of service interruptions to provide a constant energy supply while improving safety measures, reducing costs, and minimizing waste (Enel, 2019).

### Secondary Activities

- **Firm Infrastructure:** The structure of Enel can either support the creation of value or inhibit it if the organizational structure is not conducive to its strategy. Enel’s organizational model is a matrix composed of Business Lines/Countries and Regions which is bordered by the Global Service Functions and Holding Functions, which offer support for each line (Enel, 2019). Additionally, Enel pursues a sustainable governance structure that is lean and diffused and integrates environmental and social factors through the circular economy; comprised of a Board of Directors which is in charge of examining and approving strategic, industrial, and financial plans to “promote a sustainable business model and lay the basis for long-term value creation”; a Corporate Governance and Sustainability Committee, which monitors the sustainability of operations and interactions with stakeholders; a Control and Risks Committee, which examines the Sustainability Report concerning the “Internal Control and Risk Management System”; the CEO and GM, who are responsible for defining and implementing the sustainable business model and promoting zero carbon emission energy generation; and the Innovability Function which reports to the CEO and “manages all activities from the perspective of sustainability and innovation” (Enel, 2019).

- **Human Resources:** The people who make up Enel “constitute the strategic lever to manage the energy transition process”, thus the group has placed a strong emphasis on HR as vital to value creation (Enel, 2019). Enel has developed many value supporting HR activities including their upskilling and reskilling programs that are aimed at replacing skills which are no longer required and promoting the development of current and new skills with a strong focus on “innovative technology and processes” and the development of digital skills (Enel, 2019). In 2019, Enel globally adopted the eEducation learning platform which allows Enel people to “access around 200 multiple online contents in several languages” for free in addition to coursework provided by Enel (as of 2019, 90% of the Enel population had completed at least 1 course) (Enel, 2019). Enel states that “agile job change, mentoring, shadowing, coaching, failure culture, and open feedback are all tools that make it possible to enable this new cultural ecosystem and thus create value in the long term” (Enel, 2019).
- **Technology Development:** Technological development and innovation are key aspects of Enel Group’s business model including its mission and vision as well as how the firm has chosen to strategically position itself in the industry. Thus, along with Human Resources, this supporting activity plays a large role in the creation of value for consumers. Enel has acted to “move towards a platform-based model both concerning grids and IT infrastructure, in retail and services provided” and became the “world's first large utility company to fully embrace the cloud model” in 2019 with the closure of their final data center, both of which are integral in supporting de-carbonization and the electrification of consumption as well as boosting efficiencies (Enel, 2019; Enel, 2020). The global platform-based model allows for the standardization of both operations and maintenance, customer management processes, resource allocation, and system operations to add value for the customer by achieving “cost savings while maximizing the impact of innovation and leveraging economies of scale” (Enel, 2019). The cloud, which supports the platform-based model, provides many benefits and also creates added value through increased flexibility and speed, which is vital for clients; additional cybersecurity, due to the fact that providers make it their core business function; and financial savings, (30% savings on data storage costs and 83% on computing capacity) (Enel, 2019). The full cloud also supports the key objective and value creation of sustainability: by using a server, the company is consuming about half the amount of energy which means lower CO2 emissions (Enel, 2019).
- **Procurement:** Enel Group procurement activities are heavily designed to “steer the entire supply chain towards circularity” by “measurement of the circularity of the products and services purchased by the Group, introduction of K factors to award vendors by means of specific tender instruments for their use in the transition towards a circular economy, and the start of co-innovation projects” (Enel, 2019). Enel has been able to involve over 200 suppliers, accounting for over 60% of expenditure for materials, in its “Circular Economy Initiative for Suppliers’ Engagement” project (Enel, 2019). Enel analyzes supply categories through “the entire life cycle” to assess environmental impacts and material/energy flows and has developed a specific unit to assess the safety of procurements (Enel, 2019). The creation of shared value (CSV) model, a model focused on long-term presence in emerging-market countries that avoids “the ‘compensation’ attitude, where compensation doesn’t guarantee real value creation”, is also applied to procurement activities (Hurst, 2016; Enel, 2019). According to Enel, the model is based on the idea that value creation means pursuing success by benefiting society as a whole (Kramer, 2020). Additionally, Enel has a rigorous qualification system that evaluates potential suppliers on the “technical, financial, legal, environmental, health and safety requirements, human rights, and ethical integrity” which continues even after contracts are rewarded (Enel, 2019).

### Functional Analysis

A functional analysis of Enel can help to identify strengths and weaknesses based on how the firm manages functional units outside of the value chain (e.g. financial operations, marketing activities, HR, etc.). The basic steps in conducting a functional analysis involve listing major work units; listing functions performed in each unit; selecting critical/core function on the basis of providing timely, high quality, and least cost goods/services; exploring how core functions interrelate; and discovering how or where they can be improved (the University of Wisconsin-Madison, n.d.). A function is defined as “a series of related activities, involving one or more entities, performed for the direct, or indirect, purpose of fulfilling one or more missions or objectives of the firm, generating revenue for the firm, servicing the customers of the firm, producing the products and services of the firm, or managing, administering, monitoring, recording, or reporting on the activities, states, or conditions of the entities of the firm” (Modell, 2007).

- **Global Service Functions:** “responsible for managing information and communication technology activities and procurement at the Group level” as well as adopting sustainable criteria in supply chain management and digital solutions, and consists of the following functional units:
  - Global procurement, and
  - Global Information and Communication Technology (ICT) (Enel, 2017).
- **Holding Company Functions:** are “responsible for managing governance processes at the Group level” (Enel, 2017). These functions provide support for the Group’s global business lines and geographies and are responsible for “consolidating the scenario analysis and managing the strategic and financial planning process” (Enel, 2019). Each function is headed by a leader who reports directly to the CEO (Enel, 2019).
  - Administration: This functional unit, along with with the Finance and Control unit, is aimed at maintaining a dialogue with investors; is in charge of coordinating various lines and geographies (e.g. it “organizes meetings between the company’s top management and institutional investors and financial analysts”); oversees documentation and updates to the Strategic Plan; engages in conference calls and interactions with analysts; and supports the “correct assessment of [the Group] by the financial community” (Enel, 2019).
  - Finance and Control: As previously mentioned, Enel derives over 50% of its revenue from abroad via the sale of electricity, transport of electricity, fees from network operators, transfers from market operators, sale of gas, transport of gas, sale of fuels, connection fees, construction contracts, and the sale of commodities — the majority of revenue is generated from the sale and transport of electricity and the sale of gas and commodities (Enel, 2019). The primary cost drivers for the firm are from the purchase of electricity, fuel for trading and gas for sale to end-users, personnel, and services/leases/rentals (Enel, 2019). Operating income by business segment is as follows (in millions of euro) for the first half of 2020; Thermal Generation and Trading (184), Enel Green Power (1,665), Infrastructure and Networks (2,346), End-User Markets (929), Enel X (-48), and Services (-70) for a total of 4,543 million euros (Enel, 2019). Many of the losses can be attributed to the acceleration of the energy transition (e.g. decommissioning the Bocamina II plant) (Enel, 2019). Looking at the Group’s financial position and structure:
    - Net capital employed on June 30, 2020, was 93,779 million euros, funded by “shareholders’ equity attributable to the shareholders of the Parent Company and non-controlling interests in the amount of 43,368 million euros and net financial debt of 50,411 million euros” (Enel, 2020).
    - FFO to total debt ratio is an indicator of financial strength, measuring a firm’s ability to pay off debt using net income — the lower the ratio the more leveraged the company (Kenton, 2020). In 2018, the utility sector had consolidated FFO to debt metric of 15%; however, Enel managed to reach 26% at the end of the year (Patel, 2018; Enel, 2019).
    - In 2018, Enel’s ending D/E ratio was .554, compared to the sector average of .68 in 2018, highlighting Enel’s ability to successfully manage debt levels and fund operations internally, which reduces the firm’s risk of becoming overleveraged (Maverick, 2019; Enel, 2019).
    - According to the half-year report, “capital expenditure in the 1st Half of 2020 amounted to €4,137 million, essentially unchanged on the previous year” and shareholders’ equity in the first half of 2020 declined as a result of dividend payments and changes in exchange rates (Enel, 2020).
    - Going forward, investments in decarbonization will account for 50% of capital expenditure in the 2020-2022 Strategic Plan; total organic investment is planned to reach 28.7 billion euros (+11%); and SDG-linked bonds are expected to account for 43% of Enel’s gross debt by 2022 (Enel, 2019).

The firm manages FX swings and rate movements with gross debt hedges; currency risk is managed with low exposure to volatile currencies; it has limited its re-financing needs and has strong available liquidity; and continues to reduce its cost of debt(-4% since 2015) (Starace, 2018).

- Human Resources and Organization: The HR and Organization function “defines organizational models in line with the Group’s strategy and the long-term plan for managing people that work in the company” (Enel, 2019). Additionally, the management of people and “development and motivation processes” are controlled by set policies at a local and global level (Enel, 2019).
- Communications: Robert Deambrogio has been the Director of Communications since 2018 (Enel, n.d.). The Communications Holding Function is tasked with “publication of the Sustainability Report and open-data access to the Group’s main environmental parameters; communication with analysts and participation in various sustainability indexes; consultations and engagement with local stakeholders; and dissemination of environmental initiatives through the internet” (Enel, 2019). At the holding level, this function is in charge of broad communication functions for the Group as a whole while each business line and/or geography is separately tasked with communications in accordance with the Holding Function but tailored to the local or business-specific level.
- Legal and Corporate Affairs: Within this unit is the role of the Group’s “anti-bribery compliance function” (i.e. overseeing and implementing an anti-bribery management system) (Enel, 2019). Additionally, it includes a Data Protection Office which is tasked with compliance with the protection and correct use of data (Enel, 2019).
- Audit and Innovability: The firm employs continual monitoring and assessment carried out by the Group’s internal auditing process (Enel, 2019). Enel has implemented an induction program for both directors and auditors aimed at “researching the sectors in which the Group operates, the corporate dynamics, and the trend of markets, and the reference normative framework (Enel, 2019). According to Enel, the average annual coverage through internal audit activities is “equal to 40% for Renewables and 53% for Infrastructure and Networks in Italy” (Enel, 2019).
- European Affairs: The European Affairs function was established and charged with the role of monitoring relevant topics regarding ongoing, and increasingly complex, EU decision-making and regulatory processes that affect Enel and is responsible for representing the Group on the European level (Enel, 2019). Within this functional unit, there is a smaller unit dedicated to “consolidating and representing the Group’s position on policies regarding climate change, low-carbon emission strategies, international carbon market regulation, the environment, and safety of procurements” (Enel, 2019). Finally, it also must coordinate with all other company areas and geographies to ensure that the processes it adheres to on a European level are in line with Enel’s strategy (Enel, 2019).
- Innovation and Sustainability: The innovability (innovation and sustainability) function is charged with communicating a shared value model and supporting innovative solutions to promote access to power; it manages all innovation activities in liaison with all the other functions and drafts an annual 3-year innovation plan (Enel, 2019).

### **Implementation Issues**

*Organized to Capture Value.* Is Enel organized in a way that allows the firm to capture value from its resources, capabilities, and core competencies (Jurevicius, 2013)? If a firm has not organized “its management systems, processes, policies, organizational structure, and culture to be able to fully realize the potential of its valuable, rare, and costly to imitate” resources, capabilities, and core competencies then it has not achieved a sustained competitive advantage, but if it has done so, then we can say that the firm has achieved a sustained competitive advantage (Jurevicius, 2013). Enel’s organization model is built to reflect its core competencies in technology, sustainability, innovation, and strategic unity, as explained in our value chain analysis of the firm where we saw that each structure within the Group is in charge of examining and implementing sustainable business measures, emphasizing and cultivating innovation, and achieving unity among the Group for “long term value creation” (Enel, 2019).

*Has Enel Group achieved a sustained competitive advantage?* After conducting a VRIO analysis we can see that not all of Enel’s resources, capabilities, and core competencies have resulted in the firm achieving a competitive advantage. For example, Enel Group has some which are valuable but not rare, resulting in competitive parity for its global distribution channels and processes, financial capital, equipment, partnerships with governments, and supply chain management. However, multiple of the firm’s core competencies are valuable, rare, costly to imitate, and non-substitutable, which, when paired with the firm’s structure (its ability to capture value), has resulted in the following competitive advantages relative to competitors: sustainability, the ability to achieve strategic unity, and the ability to innovate.

**SWOT Analysis**

Now that we have done both an internal and external analysis of Enel, we can summarize our results into a SWOT chart, which identifies strengths, weaknesses, opportunities, and threats. A SWOT analysis can help a firm to identify profitable opportunities in the industry, mitigate risks, build on strengths, and address firm weaknesses (Ireland, Hoskisson, & Hitt, 2011). Additionally, we can use the results of the analysis to evaluate whether the firm's strategy is successful, and why or why not.

| Strengths   | Weaknesses  |
|---|---|
| <ul style="list-style-type: none"> <li>● Diversified business model and portfolio</li> <li>● Successful growth through sustainable business model</li> <li>● Industry leader (in terms of market share &amp; penetration)/very large power capacity</li> <li>● Competitive advantage in innovation, strategic unity, and sustainability</li> <li>● Strong organization model which supports the creation of value</li> <li>● Strong reputation, excellent know-how, and significant expertise in the industry</li> <li>● Economies of scale and scope</li> <li>● Early mover into renewable energy, sustainability, the cloud/platform-based model, electrification and decarbonization, and many underdeveloped countries</li> <li>● An industry leader in technological innovation</li> <li>● Resilience to disasters (manmade/natural) with digitalization and automation</li> <li>● Agility: historically a thermal firm but adapted to change</li> </ul> | <ul style="list-style-type: none"> <li>● Minimal presence in Africa and Asia</li> <li>● Competitive parity in global distribution channels and processes, financial capital, equipment, partnerships with governments, and supply chain management</li> <li>● High attrition rate resulting in high costs</li> <li>● Acquisition spree that could risk the firm spreading itself too thin or result in poor management of segments/rushing into acquisitions</li> <li>● Successfully and efficiently integrating acquisitions that have a different culture so that they align with the Group's sustainable business model</li> <li>● A habit of eagerly paying a premium on acquisitions/not leveraging size to negotiate down on acquisitions of small players</li> </ul>   |
| Opportunities   | Threats   |
| <ul style="list-style-type: none"> <li>● Opportunities from the energy transition                             <ul style="list-style-type: none"> <li>○ Growth in renewable capacity/decarbonization</li> <li>○ Grid development and automation/digitalization</li> <li>○ e-Mobility/electrification</li> <li>○ Urban infrastructure/smart city developments</li> </ul> </li> <li>● Opportunity to “grow into the role as leader of the clean energy transition” (Deloitte, 2020)</li> <li>● Continued improvements in storage and demand response</li> <li>● Developing a strategic presence in Africa and Asia</li> <li>● Continued growth through acquisition by successful integration and improved management</li> </ul>  | <ul style="list-style-type: none"> <li>● Covid-19 (e.g. global recession/decreases in human capital development)</li> <li>● The plunge of oil and volatile global commodity prices, which could drive other competitors into investments in renewables and more sustainable models, which could threaten Enel's competitive advantage (Parnell, 2020).</li> <li>● Climate risk, exchange rate risk, cybersecurity threats</li> <li>● Being present in many regions requires “radical knowledge of each area” which if not managed correctly could result in delays and poor business decisions (Enel, 2019).</li> <li>● Many of Enel's core businesses are in new and radical fields and risky locations, which exposes the firm to significant risk compared to firms with heavy investment in traditional energy sources</li> <li>● Political turmoil and terror attacks are increasing across the globe everywhere, particularly in areas of unrest, which Enel operates in</li> <li>● Growing trade tensions between countries/increase in protectionist policies/changing government policies/supply chain disruptions</li> <li>● Eurozone crisis</li> </ul> |

Figure 2: Enel Group's SWOT Analysis

Above is a summary SWOT analysis that highlights the results of the external (five forces/ PESTLE) analysis as well as the internal (Supply Chain, VIRO, & Functional). By condensing the analyses into a table we can quickly and easily identify the firm's strengths, weaknesses, opportunities, and threats which then allows us to determine whether or not the firm's strategy and positioning are successful or where they can be adjusted.

The world is more connected than ever, which has created an interdependence between markets across the globe. The environment that Enel operates in is growing increasingly uncertain: the impact of COVID-19 has fueled a global recession, resulting in increases to sovereign debt and protectionist policies, all of which are disrupting supply chains and leading to growing tensions between countries; growing political unrest, and polarization across the globe create a risky environment for businesses; and we have also seen sharp falls in global equity markets, currency depreciation, and commodity fluctuations (e.g. substantial drops in oil). Additionally, in the global utility industry, we are seeing rapid technological innovation and diffusion (e.g. digitalization, smart cities, e-services, platformization) as well as a growing awareness of the environmental impacts that energy-related businesses have on both a local and global scale (e.g. loss of local habitats/global climate change). Finally, we can see that soon the growth in global demand for electricity is expected to come almost entirely from developing countries (e.g. China, India, Middle East, Africa, etc.) (Kramer & Nadella, 2018). More than 1.2 billion people in developing countries lacked access to a stable supply of energy in 2017, however, "the lack of infrastructure, combined with poverty, pollution, government corruption, and a widely dispersed population in rural areas presents a serious challenge to traditional models of power production" (Kramer & Nadella, 2018). These environmental trends all point towards a firm's need to be able to innovate products, infrastructure, and processes to be centered around sustainability and reliability (particularly in developing locations), while acting to mitigate the growing risks of doing businesses and capture a growing market which has been neglected due to underdevelopment.

As mentioned earlier, Enel Group's 2020-2022 Strategic Plan has been condensed into a simple equation: "sustainability equals value"; the firm seeks to add value for the customer through sustainability (Enel, 2019). Francesco Venturini, the successor of Starace as CEO of EGP, highlights Enel's significant shift of strategy, "when I started here in 1998, Enel had a very steady business and you already knew how much profit you were going to make 10 years down the road. Now, things are changing at a speed that has never been seen before" (Kramer & Nadella, 2018). According to Miles and Snow's typology of business strategies, Enel would have once been best classified as a defender, a firm who perceives the environment as stable (e.g. mature market) and has the goal of maintaining the market by focusing on cost control and mechanistic organization (Miles & Snow, 1978). However, a market that was previously considered to be stable has now shifted significantly and can best be classified as dynamic and growing, which Enel was able to recognize (arguably ahead of other large competitors). And so, it shifted its strategy to exploit new opportunities, thus it became more of a prospector/analyzer as it focused on innovation and moved away from thermal generation into renewable energy, de-carbonization, and electrification. In contrast to other firms who also pursue renewable energy, but continue to focus their core business on thermal generation, Enel acknowledged that "renewables could not really grow within a company that has a large thermal portfolio" because "thermal generation depends on a few key decisions to build very large plants that take a long time to be build, and renewables are exactly the opposite" (Kramer & Nadella, 2018).

### **Alignment and Organizational Fit**

For a firm to successfully implement a strategy that supports the external environment, it must align its internal structure to support its chosen strategy; there must be a "perfect fit" (Miles and Snow, 1978). That is, Enel's chosen strategy, no matter how well developed, will not be successful if the internal operations and structure of the firm are not aligned with the strategy. When Starace became CEO he decided on pursuing a transnational strategy because he "believed that the company's ability to handle complexity by pursuing different strategies in different regions would position Enel best" (Kramer & Nadella, 2018). For example, "in mature markets such as Italy and Spain, Enel would grow through advanced digital power management services. In growing markets such as Latin America, Enel would expand its renewable generation and distribution systems. And in the emerging markets such as Africa and India, Enel would experiment with new business models adapted to local circumstances" (Kramer & Nadella, 2018). When Enel realigned its strategy to better fit the external environment it underwent a significant internal restructuring as well, working to "build a change-oriented culture inside the company" and shifting from a historically vertical organizational structure (which resulted in many of Enel's acquisitions competing against one another) to today's global matrix model, which supports the implementation of a transnational strategy (Kramer & Nadella, 2018; Ireland, Hoskisson, & Hitt, 2011).



Additionally, as Enel went from defender to analyzer/prospector the Group had to shift its underlying values from efficiency to include flexibility and expand their operating focus from cost control to include innovation, expansion, and organic organization (Miles and Snow, 1978). Looking at it another way, based on the VRIO framework, the firm had to align its organizational model to capture the value that it was creating with its strategic plan.

We can see that the firm's internal structure and strategy are successfully aligned with the external environment, but how successful is the firm's strategy? That is, how does Enel's strategy allow the firm to create a profit and maintain a competitive advantage against the competition? For example, Engie, one of Enel's competitors has also recently invested significantly in renewables, and away from fossil fuel assets; this shift was credited to Kocher, however, she was recently dismissed as CEO of Engie because of the poor performance of the firm under these shifts (Pyper, 2020). Antonio Cammisecra, of Enel, pointed out that "the competition from other power companies was very mild; the real competition was between renewables and thermal power" (Kramer & Nadella, 2018). The reason Enel can successfully expand and increase returns while competitors struggle lies in the alignment of its strategy and internal structure as well as its ability to leverage its understanding of the environment.

For example, because Enel was able to recognize that the real competition was not with competitors per se but with thermal power, a key aspect of Enel's strategy focused on "driving down the cost of renewables to make them competitive with other energy sources", in part by using its scale & scope to negotiate with suppliers and low-cost capital while also using its global presence to mitigate the impact of political and regulatory changes that might happen in any specific country (which increase costs/losses) (Kramer & Nadella, 2018). However, it doesn't stop there, Enel also notes that while energy companies do need to be cost leaders, that it is only one factor; the firm also ensures that it has a "pipeline of projects" from which it can choose from to best support growth/investment needs; while other companies find themselves forced to invest in a project, Enel is able to strategically select its best projects which maximizes returns and improves performance (Pyper, 2020).

We can also examine the success of Enel's strategy vs. other firms through the level of integration. In other words, Enel has made it a priority to eat, sleep, and breathe sustainability, which we saw through our value chain, VRIO, and functional analysis. Enel creates value through sustainability while competitors create value by providing energy to consumers (regardless of the source). Their CSV model diverges from corporate philanthropy and CSR initiatives that other firms may undertake because where the two latter models act as mere compliments to a firm's strategy, Enel's CSV model **is the competitive strategy**. That is, that "it emphasizes collective well-being as a source of innovation that can lead to greater profitability and competitive advantage" in contrast to the standard model which only asks companies to "compensate for the damage they cause or redistribute profits earned at society's expense" (Enel, 2020). In other words, the reason Enel's strategy is so effective is that top management has completely restructured the internal structure and operations of the firm to support the strategy, something firms like Eni and Engie have failed to do. Enel has made progress towards its long-run sustainability vision through all aspects of the value chain: in the generation segment, a divestment in thermoelectric generation, an increase in demand response capacity and storage capacity, and a decrease in direct fuel consumption; in its distribution segment, an increase of end-users with active smart meters; and in retail, a large increase in electric mobility charging points (Enel, 2019).

We could also say that many of Enel's competitors lack strategic intent, where strategic intent has the goal of "folding the future back to the present" (Hamel & Prahalad, 2005). Enel does not trim its ambitions to match resources, thus limiting their search for sustainable ambitions, instead, the firm leverages resources to accelerate learning and attempting to attain impossible goals which forces the firm to be more inventive (as a result of a misfit between resources and ambitions) (Hamel & Prahalad, 2005). Strategic intent is a future-focused ambition that is stable over time and encompasses all aspects of the firm's operations; every decision Enel makes supports a seemingly impossible long-run vision of sustainability, while other energy firms are focused on strategic planning (e.g. "realistic" and "precise") which results in short horizons and competitive imitation (Hamel & Prahalad, 2005). For example, we can see this with Enel's leap into telecommunications and consumer electronics, which seem uncharacteristic at first glance, however, this strategic decision actually emphasizes the firm's commitment towards the energy transition (Deign, 2017). For example, these two sectors support the firm's ability to "provide clients with the customized, specialized, and flexible energy management tools that they need in order to fully understand and optimize their energy consumption" which is directly related to long-run sustainability goals (EnelX, 2020).

## Suggestions for Enel Group

Even though Enel's strategy is successfully aligned with its internal organization and the external environment, Enel still faces external threats and has internal weaknesses that shouldn't be ignored. Regardless of how successful they are, firms must constantly address weaknesses and threats that it faces by either altering its position, changing its strategy, or making strategic decisions to mitigate risks, which leads us to a discussion on how Enel can adjust to address its weaknesses while combating threats (which we identified in our SWOT analysis) in the external environment.

As noted in the SWOT analysis, some of Enel's biggest weaknesses include its competitive parity (as opposed to competitive advantage) in global distribution channels and processes, financial capital, equipment, partnerships with governments, and supply chain management; a high attrition rate which has raised costs for the firm; the habit of paying high premiums on acquisitions as opposed to paying for what the firm is worth/not negotiating enough and a tendency towards acquisition sprees that can result in poor integration or the Group becoming spread too thin; and most notably, almost no presence in Africa and Asia. On the other hand, Enel's biggest threats include the COVID-19 pandemic and its effects (e.g. recession, the plunge of oil, supply chain disruption, etc.), climate change and cybersecurity threats, growing political tension across the globe, and the Eurozone crisis (see table for a more in-depth description of threats and weaknesses). As previously noted, the majority of the world's growth in demand for electricity will be from countries like China and Africa, where Enel has minimal presence. By expanding operations into new markets Enel will be better positioned to successfully grow and capture a greater market share. Capturing new markets, in addition to supporting growth and performance, will help the firm develop competitive advantages, hedge against risk, and support Enel's sustainability strategy. Additionally, with more firms pursuing renewable energy, expanding into new markets will help enhance the firm's ability to compete with major rivals going forward (Ireland, Hoskisson, & Hitt, 2011). Currently, Enel has very small grid operations in Zambia and South Africa, manages a thermoelectric grid in Morocco, one small wind farm in India, and operates parts of Enel X out of South Korea and Japan. While Enel will benefit from increasing its presence in both Asia and Africa, we believe that Africa, and Nigeria more specifically, offers the most pertinent opportunity that aligns with the strategic plan of the firm.

Historically, Nigeria has had a significant overdependence on oil revenues with it accounting for over two-thirds of the country's tax revenue (Johnston et al, 2020; Coface, 2020). These problems are expected to be exaggerated due to flat and declining oil production and the COVID-19 pandemic (e.g. oil price collapse), which is acting as a wake-up call for leaders to diversify the country's economy (Johnston et al, 2020; Coface, 2020). For many years, African countries such as Nigeria have lacked FDI due to poor economic development, high political/legal barriers, and significant perceived risk, all resulting in high barriers to entry which have deterred investment in all major sectors. However, many firms are starting to see the potential of these countries and the untapped markets within them—this is particularly the case for the utility industry.

Nigeria's leaders have been aggressively pursuing policies to open the country up to FDI and to diversify the economy away from oil while also creating a better business environment:

- “the Nigerian Investment Promotion Commission Act took away nearly all limits and controls on FDI for almost all sectors and allowing for 100% foreign ownership except in the petroleum sector where it is limited to joint ventures and production sharing contracts (government receives a share of production without taking on the costs) and created the Nigerian Investment Promotion Commission (NIPC) to encourage investment” (Johnston et al, 2020; ICS, 2018).
- In 2020, on the World Bank's Doing Business ranking, Nigeria was ranked 131/190, which is 15 places up from last year (World Bank Group, 2020).
- As an effort to increase investments for innovative entrepreneurship, the FIRS is offering incentives such as “capital gain incentives, pioneer status incentives, export incentives as well as reducing the withholding tax payable by 50%” (Johnston et al, 2020; NITDA, 2019).
- There has been significant talk about committing over 1.5bn to improve the country's digital economy and network (Nliam, 2020).
- The government has prioritized non-oil power sources, notably gas and renewable energy, with policies/programs such as the Nigerian Gas Flare Commercialization Program policy and Gas Master Plan along with significant federal investments (Johnston et al, 2020; U.S Department of Commerce, 2019).

In addition to the government's role, in the past few years, China has been a major investor in supporting Nigeria's growth with major projects including "a contract to construct a 440km railway from Abuja to the port city Warri as well as a new port at Warri; the financing and construction of Nigeria's first deep seaport, known as Lekki Port, which is near the Lagos Free Trade Zone; China Harbour Engineering's involvement in the plans for Bakassi Deep Seaport in Cross River State as well as a 170mi highway to connect the port to Northern Nigeria; China Civil Engineering Construction Company (CCECC) \$50m investment to pay for Nigeria's first transportation university to support Nigeria's rapidly growing rail and road networks; CCECC's plans to build Nigeria's first rolling stock assembly to produce wagons for railways; CCECC's Lagos airport expansion, inner-city light rail projects in Abuja and Lagos as well as extensive road projects financed by the Exim Bank of China; the financing of two major standard gauge rail projects that included upgrading the western trunk line from Lagos to Kano and a new coastal railway that connects Lagos to Calabar and includes branches to Benin City and Onitsha" (Johnston et al, 2020; USIP 2018; GCR, 2019a,b,c,d,e; Hellenic Shipping News, 2020). These investments are expected to make major improvements to the country's infrastructure (particularly transport systems) and the energy sector.

Nigeria also is abundant in factor and rare natural endowments including a low-cost labor supply of 62 million and the 9th largest supply of natural gas reserves in the world (202tn ft<sup>3</sup> of proven gas reserves and an additional 600tn ft<sup>3</sup> of unproven potential resources) (Olurounbi, 2020). Despite these endowments, Nigeria only generates 4,000 MW of power most days, which results in most of the country going without a stable power supply, and only half of the population having access to energy at all (Johnston et al, 2020; World Bank, 2019). This creates a significant opportunity for Enel to meet consumer need for a stable and pervasive energy supply, especially when we factor in that Nigeria's population growth rate of 2.6% is projected to put the population at over 300 million by 2030 creating an even larger demand (Nigeria is already Africa's most populous country) (World Bank Group, 2019). This population growth rate (in contrast to many countries with no growth or declining populations) also means that the firm will be less likely to experience population shocks that have significant impacts on the economy (the U.S and China have aging populations which are expected to place pressure on the countries' economies) and means that the Group will continue to have a large labor pool, which is imperative for long run operations and stability of the firm.

Not only does Enel have the opportunity to offer sustainable energy in a developing country (one of its major strategic goals) it also has a significant opportunity in the information and communication technologies sector (another strategic goal). For example, "in 2001 Nigeria's information and communication technologies sector (ICT) was less than 1% of GDP but by 2018 it was nearly 10%", making Nigeria Africa's biggest market for technology and it accounts for over ¼ of total internet users in Africa (Johnston et al, 2020; Ramachandran et. al., 2019). Nigeria has become a hub of innovators and tech startups (e.g. Jumia) in various sectors such as "energy, transportation, finance, and agriculture" that aim to solve problems where the government hasn't (Johnston et al, 2020; Ramachandran et. al., 2019). As a firm that frequently acquires other firms, there are a significant number of acquisition opportunities for Enel that align with the Group's strategic intent and can likely be pursued under a premium. Additionally, with staggering, but still infantile development in the ICT sector in Nigeria, Enel's subsidiary EnelX could offer affordable and innovative solutions to problems while also supporting its parent firm in developing a stable power supply across the country and on. One of Enel Group's main goals is to develop the communities they are involved in (e.g. building schools and development centers), as a country with significant educational deficits, Nigeria and Enel would both benefit from the Group expanding into the Nigerian market. Most importantly, as a firm aggressively pursuing sustainability, Nigeria offers a unique incentive for the firm in that the country is doing everything it can to 'get away from oil'.

Nigeria is not without risks (e.g. Boko Haram, militant groups, corruption, poverty, etc) and these risks must be considered. That being said, the country continues to make significant strides in development and Enel Group's long history, size, capital, and experience make it a firm that is capable of taking on such risks for long-run success and growth; it is also worth noting that Enel Group prioritizes operations in developing countries which are by nature riskier, so such a move would not be considered as drastic for the Group compared to other firms. If Enel can establish itself ahead of competition it will be able to benefit from first-mover advantages and be able to capture a greater share of the market.

And while Nigeria offers its risks, by further expanding its global presence, Enel will be able to reduce some of the threats/risks we identified, by diversifying itself, in the SWOT analysis such as the Eurozone crisis and growing tensions in Latin/Southern America (where the Group has a very heavy presence) while also taking the opportunity to “grow into the role as leader of the clean energy transition” (Deloitte, 2020). By expanding operations to Nigeria, Enel will be able to propel future global operations and scalability, gain access to an untapped market, develop global networks, reduce trade barriers, and be positioned to capitalize on increasing future demand.

## Conclusion

Enel is currently in a very strong position relative to its competitors. As other firms pursue renewable energy sources and become more sustainable, Enel Group is going to have to make some strategic moves to maintain (and develop) competitive advantages and successfully position itself to compete with the competition. We have suggested expanding into new markets, more specifically in underdeveloped areas of the world, more specifically Nigeria.

Future researchers can therefore compare and contrast our suggestions versus those actions that the Enel Group actually takes to determine if the firm concurred with both our analyses and recommendations.

## References

- Bremmer, I. (2020, Jan 6). *The top 10 Geopolitical risks for the world in 2020*. TIME. Retrieved from [The Top 10 Geopolitical Risks for the World in 2020](#)
- Coface. (2020, Feb). *Nigeria*. Retrieved from [Nigeria / Economic Studies](#)
- Deign, J. (2019, Feb 13). *Enel's Clean Energy Strategy Pays Off With Increase in Earnings*. GTM. Retrieved from [Enel's Clean Energy Strategy](#)
- Deign, J. (2017, Dec). *On an acquisition spree, Enel keeps an eye out for more distributed energy opportunities*. GTM. Retrieved from [On an Acquisition Spree, Enel Keeps an Eye Out for More Distributed Energy Opportunities](#)
- Deloitte. (2020). *Midyear Outlook: Understanding new oil and gas industry trends*. Retrieved from [2020 Oil and Gas Industry Outlook](#)
- Dholakia, G., Khan, S., Rack, Y. (2019 Jun, 20). *Italy's Enel tops list of 20 largest European utilities by market cap*. S&P Global. Retrieved from [Italy's Enel tops list of 20 largest European utilities by market cap](#)
- Enel. (2020, July 14). *A Platform for Success*. Enel. Retrieved from [The platform business model - Enel.com](#)
- Enel. (2019, July 11). *Enel "Full Cloud": all the advantages of being the pioneers*. Enel. Retrieved from [Enel moves 100% to the cloud: the model for the future - Enel.com](#)
- Enel. (2019, Nov. 26) *Enel 2020-2022 Strategic Plan: Maximizing Value Through Sustainability*. Enel. Retrieved from [Enel Strategic Plan 2020 2022](#)
- Enel. (June 30, 2020). *Half-Year Financial Report on June 30, 2020*. P1-240. Retrieved from [Half-Year Financial Report at June 30, 2020](#)
- Enel. (2020). *Vision, Mission, and Values*. Retrieved from [Vision, Mission, and Values](#)
- Enel. (2020). *Vision. New Era. New Energy*. Retrieved from [Corporate vision: values and objectives](#)
- Enel. (2016). *Our History, Our Future*. Retrieved from [The Enel story, from an Italian statutory corporation to a major multinational - Enel.com](#)
- Enel. (n.d.) *Enel Group: About*. LinkedIn. Retrieved from [Enel Group](#)
- Enel. (2020). *Strategy*. Retrieved from [Executive Summary Capital Markets Day 2019](#)
- Enel. (2019). *Sustainability is value: the 2020-2022 strategic plan*. Retrieved from [Sustainability = value: Enel's 2020-2022 Strategic Plan - Enel.com](#)
- Enel. (2018). *Sustainability begins with suppliers*. Retrieved from [The sustainability of the supply chain - Enel.com](#)
- Enel. (2017). *Sustainability Report 2017 - Customer Focus*. Retrieved from [Customer focus](#)
- Enel. (2020 April, 29). *Enel: greater focus on sustainability objectives in remuneration policy for 2020*. Retrieved from [Enel: greater focus on sustainability objectives in remuneration policy for 2020](#)
- Enel. (2017). *Enel organizational model*. Retrieved from [Enel Annual Report](#)

- Enel. (2019, Jan. 27). *Procurement heads towards a sustainable supply chain*. Enel. Retrieved from [Procurement: sustainability starts with suppliers - Enel.com](#)
- Enel. (2020 Jan, 9). *Enel Green Power starts the year with a bang, beating its previous record with over 3 GW of renewable capacity built-in 2019*. Retrieved from [Enel Green Power starts the year with a bang, beating its previous record with over 3 GW of renewable capacity built-in 2019](#)
- Enel X. (2020, July 27). *As the world goes digital, companies can join the transition to get ahead of competitors*. Retrieved from [Digitalization in the energy sector: management solutions](#)
- Fern Fort University. (n.d.). *Enel Americas S.A. Porter Five Forces Analysis*. Retrieved from [Enel Americas SA Porter Five \(5\) Forces & Industry Analysis \[Strategy\]](#)
- Garcia, R., Lessard, D., Singh, A. (2014). *Strategic partnering in oil and gas: A capabilities perspective*. Energy Strategy Reviews p21-29. Retrieved from [Strategic partnering in oil and gas: A capabilities perspective](#).
- Global Construction Review. (2019a). *China begins work on a free-of-charge transport university for Nigeria*. GCR. Retrieved from [China begins work on free-of-charge transport university for Nigeria - News](#)
- Global Construction Review. (2019b). *China starts building Nigeria's first rolling stock factory*. GCR. Retrieved from [China starts Nigeria's first rolling stock factory](#).
- Global Construction Review. (2019e). *China to fund and build \$3.9bn railway from Nigeria's capital to the sea*. GCR. Retrieved from [China to fund and build \\$3.9bn railway from Nigeria's capital to the sea - News](#)
- Global Construction Review. (2019c). *Nigeria approves \$2bn Bakassi seaport: now it needs investors*. GCR. Retrieved from [Nigeria approves \\$2bn Bakassi seaport: now it needs investors - News](#)
- Hamel, G. & Prahalad, C.K. (2005). *Strategic Intent*. HBR. Retrieved from [Strategic Intent](#)
- Hellenic Shipping News. (2020, January 26) *Nigeria: Lekki Port to Berth Vessels of 18,000 Teus When Completed*. Retrieved from [Nigeria: Lekki Port to Berth Vessels of 18,000 Teus When Completed](#)
- Hurst, G. (2016, Dec). *Enel: Redefining the Value Chain*. Shared Value Initiative: Case Study // Enel.
- IGSenergy. (2018). *The Power of Choice: Energy Competition and the Utility*. Retrieved from [Energy Competition And The Utility](#)
- Impak. (2020, July 29). *Corporate impact face-off: Engie vs. Enel*. ImpactAlpha. Retrieved from [Corporate impact face-off: Engie vs. Enel](#)
- Ireland, R., Hoskisson R., & Hitt, M. (2011). *Understanding Business Strategy 3(e)*. Cengage Learning.
- Johnston, C., Marturano, S. N., Ramkissoon, S. (2020). *China-Nigeria: Global Business Plan Project*.
- Jurevicius, O. (2013). *VRIO Framework: What makes your business unique?* Strategic Management Insight. Retrieved from [VRIO framework explained | SMI](#)
- Kasi, A. (2019 Nov, 24). *Porter's Five Forces of Enel America SA*. Porter Analysis. Retrieved from [Porter's Five Forces \(Porter's Model\) of Enel America SA](#)
- Kenton, W. (2020). *Funds From Operations (FFO) to Total Debt Ratio*. Retrieved from [FFO to Total Debt Ratio](#).
- Kramer, M. (2020, May 29). *Creating shared value to tackle climate change*. Enel. Retrieved from [Creating shared value to tackle climate change](#)
- Kramer, M., Nadella, B. (2018, Aug 1). *Case Study: Enel: The Future of Energy*. Harvard Business School.
- Maverick, J. B., (2019, Feb 7). *Debt-to-equity (D/E) Ratios for the utilities sector*. Retrieved from [Debt-To-Equity \(D/E\) Ratios for the Utilities Sector](#)
- Merchant, E. (2018). *Enel plans to Spend €10.6 Billion on Renewables Through 2021*. GTM. Retrieved from [Enel Spending on Renewables](#)
- Miles, R., Snow, C. (1978). *Organization Strategy, Structure, and Process*.
- Modell, M. (2007). *A Professional's Guide to Systems Analysis (2e)*.
- News Global Construction Review. (2019d). *China lends \$629m for Nigeria's deepwater port*. GCR. Retrieved from [China lends \\$629m for Nigeria's deepwater port - News - GCR](#)
- NITDA. (2019, April). *Nigeria ICT Innovation and Entrepreneurship Vision*. Retrieved from [Nigeria ICT Innovation & Entrepreneurship Vision – Nigerian Investment Promotion Commission](#)
- Nliam, A. (2020, January 30). *President Buhari to Provide Conducive Business Environment*. VON.
- NREL. (2016). *U.S Laws and Regulations for Renewable Energy Grid Interconnections*. National Renewable Energy Laboratory. Retrieved from [US Laws and Regulations for Renewable Energy Grid Interconnections](#)



- Olurounbi, R. (2020, January 24). *Nigeria secures \$2.5bn gas pipeline finance*. Petroleum Economist. Retrieved from [Nigeria secures \\$2.5bn gas pipeline finance](#)
- Patel, S. (2018, Jun 20). *Increasingly Debt-Laden, Regulated Utility Sector Outlook Veers from 'Stable' to 'Negative'*. Retrieved from [Increasingly Debt-Laden, Regulated Utility Sector Outlook Veers from 'Stable' to 'Negative'](#)
- Parnell, J. (2020, March). *Could the oil price collapse drive more investment into renewables?* GTM. Retrieved from [Could the oil price collapse drive more investment into renewables](#)
- PowerTechnology. (March 19, 2019). *The ten biggest power companies in 2018*. Retrieved from [Top 10 power companies in the world: Ranking the largest](#)
- PRB. (2020). *2020 World population data sheet shows older populations growing, total fertility rates declining*. Retrieved from [2020 World Population Data Sheet Shows Older Populations Growing, Total Fertility Rates Declining](#)
- Pyper, J. (2020, Feb 12). *Making Money in Renewables Is Not Easy. Enel Claims to Have It Figured Out*. gtm. Retrieved from [Enel Green Power CEO: Renewables Beating Fossil Fuels With 'No Incentives Whatsoever'](#)
- Ramachandran, V., Obado-Joel, J., Fatai, R., Masood, J. S., & Omakwu, B. (2019, November 12). *The New Economy of Africa: Opportunities for Nigeria's Emerging Technology Sector*. Center for Global Development. Retrieved from [The New Economy of Africa: Opportunities for Nigeria's Emerging Technology Sector](#)
- Regulation Body of Knowledge. (n.d.). *Competition in Utility Markets*. Retrieved from [Body of Knowledge on Infrastructure Regulation](#)
- Reuters. (2020). *Companies*. Retrieved from [Reuters Company Profiles](#)
- RITE. (n.d.). *Various Methods of Electricity Generation*. Research Institute of Innovative Technology for the Earth. Retrieved from [Various Methods of Electricity Generation](#)
- Roberts, D. (2015 Sep, 9). *Power utilities are built for the 20th century. That's why they're flailing in the 21st*. Retrieved from [Power utilities are built for the 20th century. That's why they're flailing in the 21st](#)
- Smith, R. (n.d.). *Explaining the VRIO Framework (With a Real-Life Example)*. ClearPoint Strategy. Retrieved from [Explaining The VRIO Framework \(With A Real-Life Example\)](#)
- Smallwood, N., Ulrich, D. (2004). *Capitalizing on Capabilities*. Harvard Business Review. Retrieved from [Capitalizing on Capabilities](#)
- Starace, F. (2018). *Capital Markets Day: Strategic Plan 2019-21 ppt*. Enel.
- SustainAbility. (2019). *Energy & Utilities Sector Report: Technology Enables and Disrupts*. Retrieved from [Energy & Utilities](#)
- SustainAbility. (2019). *Climate Crisis: Efforts remain insufficient to change our dangerous current course*. Retrieved from [Climate Crisis](#)
- The World Bank. (2019, November 28). *Nigeria Digital Economy Diagnostic: A Plan for Building Nigeria's Inclusive Digital Future*. Retrieved from [Nigeria Digital Economy Diagnostic: A Plan for Building Nigeria's Inclusive Digital Future](#)
- The University of Wisconsin-Madison. (n.d.). *Functional Analysis and Core Function Selection*. Office of Quality Improvement. Retrieved from [Functional Analysis](#)
- Trivikram, S. (2016 Nov, 28). *How to overcome the threat of substitutes*. Retrieved from How-To [Overcome The Threat Of Substitutes](#)
- United Nations. (2020). *Everyone Included: Social Impact of COVID-19*. Department of Economic and Social Affairs. Retrieved from [Everyone Included: Social Impact of COVID-19 | DISD](#)
- U.S Department of State. (2020). *Investment Climate Statements*. Retrieved from [Investment Climate Statements - United States Department of State](#)
- U.S Department of Commerce. (2019, August 13). *Nigeria - Oil and Gas Field Machinery*. Retrieved from [export.gov](#)
- World Bank Group. (2020). *Doing Business 2020: Comparing Business Regulation in 190 Economies*. Retrieved from [Doing Business 2020, a World Bank](#)
- World Bank Group. (2020, June). *Global Economic Prospects*. Retrieved from [Global Economic Prospect](#)