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John Cabot University

Department of Business Administration

Bachelor of Arts in International Business

Sustainability in the Energy Sector: A Study of Proactive and Reactive
Approaches. The Case of Enel and Eni

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Abstract

This study investigates different CSR and sustainability practices, and the various benefits and limitations of first and second movers within the renewable energy market. Through exploratory interviews with sustainability experts and a comparative analysis of Enel S.p.A and Eni S.p.A, we examine the differences of developed and developing countries in implementing sustainable practices, the benefits and limitations of first and second movers, and how relationships between companies and stakeholders improve with the implementation of sustainable practices, ultimately impacting the financial performance of companies. Overall, our study shows that, even though both companies are applying different strategies, implementing CSR initiatives in the business plan generally implies an improvement in financial performance.

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Table of Contents

Introduction	7
Literature Review	10
Methodology	13
Findings	16
Developing Countries	16
Developed Countries	19
Proactive Sustainable Practices: The First Mover Case of Enel S.p.A	22
Reactive Sustainable Practices: The Second or Later Mover Case of Eni S.p.A.	26
First and Second Movers – Benefits and Limitations	29
Enel’s First Mover’s Benefits	29
Eni’s Second Mover’s Benefits	30
Enel’s First Mover’s Limitations	31
Eni’s Second Mover’s Limitations	32
Similarities	32
Sustainability Strategies and Stakeholders Management	33
Investors	33
Employees	37
Customers	40
Sustainability Strategy and Financial Performance	41
Profitability	41
Costs	44
Discussion	45
Limitations and Recommendations	49
Works Cited	50

List of Figures

<i>Figure 1: Installation Cost of Solar Photovoltaics Worldwide from 2010 to 2050 (IRENA, 2024)</i>	24
<i>Figure 2: Progress of SDGs by Geographic Area (Statista, 2023)</i>	27
<i>Figure 3 (Morgan Stanley Institute for Sustainable Investing, 2024)</i>	36
<i>Figure 4 Employee opinions about employer’s sustainability actions (Deloitte State of the Consumer Survey, 2023)</i>	39
<i>Figure 5: Profitability Ratios (Authors’ elaboration, 2024)</i>	42
<i>Figure 6: Profitability Indexes (Authors’ elaboration, 2024)</i>	43

List of Tables

<i>Table A: Coding Scheme</i>	16
<i>Table B: Implementation of CSR and Sustainability Practices in Developing Countries</i>	19
<i>Table C: Implementation of CSR and sustainability practices in Developed Countries</i>	22
<i>Table D: Enel’s Proactive Sustainable Practices</i>	26
<i>Table E: Eni’s Reactive Sustainable Practices</i>	29
<i>Table F: First and Second Movers Benefits and Limitations</i>	33
<i>Table G: Sustainability and Stakeholders Management – Investors</i>	37
<i>Table H: Sustainability and Stakeholders Management – Employees</i>	40
<i>Table I: Sustainability and Stakeholders Management – Customers</i>	41
<i>Table J: Financial Performance</i>	45

List of Abbreviations

C		M	
Corporate Social Responsibility (CSR)-----	9	Multinational Enterprises (MNEs)-----	9
G		R	
GDP-----	8	Research and Development (R&D)-----	10
Gross Domestic Product (GDP)-----	7	S	
I		Sustainable Development Goals (SDGs)-----	9
International Energy Agency (IEA)-----	8	L	
Least Developed Countries (LDCs)-----	18		

Introduction

The energy sector is one of the largest and most important sectors of the world economy. It accounts for 8-10% of global GDP because every country relies on energy to function. The energy sector comprises different kinds of energy sources, such as fossil fuels, nuclear, and renewable. Today, there is a global focus on renewable energy sources like solar, wind, and hydro, which play an important role in the market not only due to their increasing demand, but mainly due to Climate Change. According to the International Energy Agency (IEA), 30.2% of global energy is generated by clean sources of energy (IEA, 2024). In particular, solar (5.4%), wind (7.8%), and hydro (14.2%) have been steadily increasing over the past five years.

Nowadays, countries are increasing their concern about Climate Change, a rising issue that is causing environmental and social issues. For this reason, the renewable energy market plays an important role in the transition toward more sustainable business practices. Among the main reasons why renewable sources of energy might be considered better than fossil fuels are more stable and safe production, a cheaper price for customers, less impact on the environment, and more return on investment. Indeed, the price for renewable sources dropped rapidly in the last years, for instance, in 2023 the price of wind and solar power was around \$45 per megawatt hour, while the price for fossil fuels reached 90 USD/MWh (Statista Research Department, 2024). Due to raising concerns about recent environmental issues, the United Nations decided to adopt, in 2015, the 2030 Agenda, an action plan for “people, planet, and prosperity” composed of 17 Sustainable Development Goals (SDGs) and 169 targets. In particular, the electricity sector is directly committed with various sustainable goals, such as SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action).

While CSR and sustainability initiatives have been acknowledged as a priority in the policy agenda of almost all countries worldwide, there exist considerable gaps in the depth of implementation of such practices for developing as well as developed countries. Adopting a comparative case analysis, our study investigates two leading Italian MNEs in the renewable energy sector, i.e., Enel S.p.A. and Eni S.p.A., and their investment strategies into CSR and sustainable practices. More specifically, we explore the impact of their renewable energy and CSR practices in different parts of the world, on different stakeholders, and ultimately on their financial performance.

For developing countries, our findings reveal the relationship between the less developed socio-economic environment and the effectiveness of CSR and sustainable practices implementation. As such, developing and emerging countries are sacrificing sustainable development for the sake of their economic growth. For developed countries, we find that despite the massive investments in renewable energy and other sustainable and CSR practices, reaching the net-zero carbon emissions goal would be very difficult because the current renewable sources can only satisfy a small portion of the global energy demand.

Furthermore, our study investigates the different sustainable practices applied by first and second movers, with the consequent benefits and limitations. As a first mover, defined as one of the first companies entering a new market, we consider Enel S.p.A when it entered the global market for renewable electricity. Thereby, the company can exploit numerous benefits, but it can also incur some challenges. For instance, the first movers can rapidly achieve economies of scales, by doubling the production volume and reducing costs. Additionally, they might have priority on assets, such as infrastructure and equipment, and on highly skilled workers. However, first movers could also face some challenges, especially at the beginning due to the high costs for

research and development and to environmental regulations. On the other hand, Eni S.p.A is considered a second mover, defined as a company entering the market after a competitor has already established itself in the renewable energy market. Eni entered the renewable energy market many years after Enel. Thereby it benefitted from product imitation advantages and reduced costs for R&D. Additionally, second entrants could find areas of improvement by avoiding repeating first movers' mistakes and enhancing services quality. However, they also face hardships, especially in acquiring loyal customers.

Moreover, our study analyzes the impact of CSR and sustainability practices on stakeholders, specifically shareholders, employees, and customers. According to the concept of Socially Responsible investing, shareholders are more likely to invest in companies that are sustainable, allowing companies to raise capital at a lower rate while improving the relationship with investors. Our findings show that when Enel offered the first SDG bond, the market response was very positive, raising a huge amount of capital. Eni has been able to improve its relationship with sustainable-oriented shareholders. We also find that Enel and Eni's CSR and sustainability strategies increased productivity, satisfaction, and engagement of their employees, customer satisfaction, loyalty, and firm reputation. Finally, Enel and Eni's CSR and sustainability investment strategies seem to positively reflect in the companies' profitability, through both reduced operating costs and increased stakeholder bonding. Overall, our study shows that both companies were able to reduce operating costs and improve their efficiency even though they have applied different strategies.

Literature Review

Nowadays, the electric sector can be considered the “largest machine ever built, consisting of generators, transformers, power lines and distribution infrastructure all over the globe” (Kahsar, 2023, p. 17). Moe, expert of the electric sector and professor of political science, noted that the discovery of new sources of energy, as well as technological advancement, has been fundamental for the development of the energy industry. In the early stage of Industrial Revolution, with the exploitation of the first energy sources, there were no policies and regulations for the energy sector so that people could protect their interests and secure energy resources at the lowest possible cost (Espen, 2010). Indeed, Bhutada observes that people used to burn wood as their main source of energy, but the prices of firewood started to rise due to the increase in demand. Consequently, after the industrialization process a cheaper source of energy was needed. This signed the first energy transition from firewood into coal, but it lost importance after the discovery of oil (Bhutada, 2022). Only during the second Industrial Revolution, the electricity sector prevailed over other industries thanks to the acquired knowledge of its main advantages, such as flexibility and its relatively smaller size (Espen, 2010).

During the past 30 years, the energy industry has been revolutionized to better comply with the regulations and requirements of the evolving market. One of the main questions that experts are trying to answer is how to redesign the electricity market to help “society transition to a cleaner and more efficient electric power industry?” To solve this problem, experts suggest the total liberalization of the market, eliminating the entry barriers and oligopolies, allowing companies to offer cheaper rates by exploiting the flow of technological innovations (Parker and Tan, 2019, p. 2745-2755).

Indeed, the European Union changed the Energy industry from a privatized to a liberalized market, reflecting the need for sustainability and energy efficiency established by the 2030 agenda. One of the main regulations recently implemented is The Environmental and Energy Efficiency that allowed the EU to reach the greenhouse gas reduction target faster by “strictly monitoring the production, transformation, and consumption of electric energy” (Bigerna, 2019, p. 3).

Nowadays the issue of sustainability has become a key factor as explained in the 2030 Agenda, a plan of actions created by the United Nations. SDG 7 is specifically aimed at “affordable, reliable, sustainable, and modern energy for all. Among the goals, the main ones are doubling the energy efficiency, increase the sustainability in the heating and transportation sectors, and increase the adoption of renewable energy power plants, such as solar, wind, and hydro” (United Nations, 2015). Indeed, many countries, especially Europe and USA, have been investing a lot of capital towards clean energy, such as solar, hydro, and wind, but also in electric vehicles. The International Energy Agency (IEA) observed that investments have risen by 40% since 2020 and one in five cars sold is electric in 2023 compared to one in 25 of 2020 (World energy outlook, 2023). The IEA experts went on to confirm that the climate crisis had a huge impact on the supply and demand in the energy sector. They stated that “the impact of weather events on electricity demand will intensify due to the increased electrification of heating, while the share of weather-dependent renewables will continue to grow in the generation mix”. Moreover, both the demand and supply of sustainable energy have exponentially increased, and this is partially due to the reduction of cost by 85% of wind and solar electricity (Jaeger, 2021).

Sustainability is one of the key elements of CSR, especially in the electricity sector. Adam Smith acknowledges the dichotomy of CSR by observing the economic standpoint of cost

reduction and profit maximization, and the moral aspect of being socially and environmentally responsible (Brown and Forster, 2012). Implementing CSR strategies in the business model has also a positive impact on the stakeholders of a company since they create expectations and contribute directly or indirectly to the business activities (Branco and Rodrigues, 2007, p. 15). Among the challenges and opportunities in the electricity sector, many are strictly linked to stakeholders' expectations, government regulations and financial performance. According to Sucheta Karmakar, CSR expert, and Radha Krishnan, manager of UH Energy, an increase in the demand for renewable energy could create price fluctuations, making it difficult for companies to invest in sustainability (Krishnan, 2022). However, companies need to satisfy stakeholders' expectations about social and environmental responsibility. In addition, they also claim that Government regulations complexity might affect companies' efforts to achieve sustainable goals. Finally, the short-term costs of investing in sustainable initiatives might prevail over the long-term benefits for the company (Karmakar, 2022). On the other hand, if companies succeed in implementing their sustainability strategy, their financial performance is expected to improve. Kludacz-Alessandri and Cygańska highlighted that CSR activities improve both the image of a company and its competitive advantage. They also stated that “CSR can stimulate human capital accumulation. A firm that adopted CSR on a high level is usually more attractive to employees and has a low turnover, which reduces the costs of recruiting and training employees”. They also added that being sustainable “can positively impact reputation, which can lower operating costs, or can positively impact employee engagement and productivity” (Kludacz-Alessandri and Cygańska, 2021, p. 2).

Finally, the impact of CSR strategies on the financial performance of a company is strictly linked to their reactive or proactive approach to sustainable innovation. In other words, if

a company is a first mover, it is more likely to experience more financial benefits than second movers. According to Siddiq, Shaista and Javed, sustainable transition experts, “research and development can help to improve the financial performance of the organization”. Therefore, innovation and development are a fundamental aspect even when talking about sustainable practices. The authors also observed that if companies develop their innovative CSR strategy and “focus on long run goals of the firm”, they might experience “extra benefits of customer loyalty which ultimately increase(s) the profit margin of the firm” (Siddiq, Shaista, and Javed, 2014, p.41-45). This idea is also maintained by Cleff and Rennings being a first mover might have its advantages because companies can show their effort into being more sustainable and environmentally friendly. Indeed, the authors claim that “a successful innovator is not necessarily the first but very often one of the early movers within the competition of different innovation designs” (Cleff and Rennings, 2012, p.495).

Being a proactive company rather than a reactive one has both advantages and disadvantages. Indeed, “first-movers will have better brand images with buyers. Consumers often purchase pioneer products simply because they know them first and are used to them” and also that “first-movers will have higher levels of return on investment”. However, even if later movers have to offer higher product/service quality to compete with first movers, they “are able to “free-ride” on first-mover’s development of the market” (Zhang and Song, p.12).

Methodology

The objective of this study is to investigate different CSR initiatives and sustainability strategies in the electricity sector for renewable energy, by focusing on implementation differences in developed and developing countries. Additionally, this study identifies the impact

of proactive and reactive investment approaches on stakeholders and firm performance. We use a qualitative approach with a case study design (Yin, 2009) which allows us to explore valuable insights on a phenomenon that is continuously evolving due to changing stakeholder trends, innovations, and regulations.

Sampling

Based on the principles of purposive sampling (Yin, 2009), we have selected Enel Group S.p.A and Eni S.p.A as our sample cases to investigate our research questions. Enel S.p.A is an Italian multinational company and a major player in the global energy and gas market, especially in Europe and Latin America. In 2008, with the creation of Enel Green Power, it revolutionized its portfolio by committing to several Sustainable Development Goals (Chesbrough, 2016). Additionally, Enel became a world leader in four main technologies: wind, solar, hydroelectric, and geothermal (Enel, 2024). On the other side, Eni S.p.A is an Italian multinational company that produces and sells oil, natural gas, and electricity. In the 2000s Eni changed its strategy entering the renewable energy market with a reactive approach. In 2017, Eni decided to create a new subsidiary, Eni Plenitude, that mainly focuses on the production and distribution of renewable energy such as gas and electricity. Moreover, it is also committed to achieving numerous SDGs. Analyzing CSR initiatives' implementation for the electricity sector allows us to conduct an in-depth analysis on how Enel and Eni address socio-environmental problems, providing new electricity solutions and jobs to local communities.

Data Collection

To frame our research themes and guide our data collection, we conducted an online interview with Alfredo Cuzzupoli, a senior manager at EY on sustainable and digital transformations strategies. This resulted in the development of a coding table, in which both

primary and secondary data are categorized and examined according to core themes in a systematic way.

We collected primary data through two online interviews with Fabrizio Furbini, Head of Sustainability Global Digital Solutions at Enel S.p.A. between September and November 2024. Secondly, we collected secondary data, such as scientific papers, market research reports, statistical data, and official company reports. These data are fundamental to analyze the impact that CSR strategies have on investors, employees, and customers, as main stakeholders, and on the financial performance of the companies. Following the process of data triangulation, we combined both data sources for the interpretation of findings. Through an accurate analysis of all the data collected, we assure transparency, data validity, and credibility. During the process of data analysis, we revised the initial codes as new patterns were identified, leading to the final coding scheme as presented in Table A.

Table A: Coding Scheme

Code Group	Main Code	Sub-codes
CSR Strategies	Developing and Developed Countries	CSR Implementation
	Proactive Strategy	Solar, wind and hydro
	Reactive Strategy	Solar, wind and hydro
	First and Second Movers	Benefit
		Limitations
		Similarities
Stakeholders Management	Investors	
	Employees	
	Customers	
Financial Performance	Profitability	
	Cost	

Findings

CSR and Sustainability Practices Implementation

Sustainability is not only a challenge that developed countries have to face, but it is also a rising concern for developing countries. Indeed, experts observed that half of all historical CO₂ emissions have been produced by just 23 developed countries (Lindwall, 2022). However, the effects of climate change are more severely experienced by developing countries. (Lindwall, 2022).

Developing Countries

One might argue that developing countries have many other problems that they might consider more relevant than sustainable transitioning. Indeed, the hardships faced by least

developed countries (LDCs) impact their economic growth much more than sustainability. Firstly, their economy has been growing very weakly in the past 20 years, going from 6.6% during 2001-2010 to 4.7% during 2011-2019. Secondly, they lack productive capacity since LDCs have not been able to differentiate their offerings or expand into high-value services. Thirdly, developing countries are still dependent on commodities and limited exports. Indeed, they specialize in the export of very few products, making them vulnerable to trade shocks. Fourthly, developing countries are very sensitive to environmental shocks. Floods, droughts, and other extreme weather events can deeply impact their production, slowing down even more their economic growth. Finally, they are highly impacted by trade agreements and tariffs because their products are often chosen for their inexpensiveness (Sen, 2020). For all these reasons, LDCs often rely on fossil fuels to power their production plants, or even in their everyday lives, because electricity might be too expensive, or they might even lack access to it. Experts estimate that “1.4 billion people lack access to electricity and that 2.7 billion people rely on the traditional use of biomass for cooking. The projections suggest that the problem will persist, and 1.2 billion people still lack access to electricity in 2030, 87% of them living in rural areas” (Kaygusuz, 2012, pp. 1118-1120). Therefore, even if people would like to use renewable sources of energy rather than fossil fuels, it is practically impossible for them to do so given the economic constraints that LDCs are currently facing. To tackle these issues, Enel Green Power decided to include developing countries in their mission for sustainability. Indeed, Enel has become a major player in Latin America, Africa, and parts of Asia by developing wind, solar, and hydroelectric projects; as well as investing \$2.9 billion to build renewable infrastructure in Brazil, contributing to the region's energy transition. (Enel: Strategic Expansion and Investment in Brazil). In addition, Enel has “built South America’s first geothermal power plant” in Chile, enhancing their

commitment to fully “support the country’s energy transition” (Enel Green Power, Chile, no date). A similar approach has been implemented by Eni that, while ensuring a stable and secure supply of natural gas from Egypt, Kenya, and other African countries, the company has been highly investing in the development of the local energy market, improving the infrastructure of the countries where they operate (Our Strategic Presence in Africa, no date). Both companies, Enel and Eni have been investing a lot of capital to improve the infrastructures and quality of life of the emerging countries where they operate, showing that sustainability is not only an environmental matter, but is it strictly linked with social issues.

Another important element that negatively affects sustainable development in least developed countries is energy poverty, in particular electric energy. The lack of infrastructure, well-functioning energy markets, and sufficient income to afford energy directly impacts energy poverty in the entire territory of developing countries, severely affecting rural and remote areas (Saidou, 2022). Sustainability does not only mean environmental sustainability, but it is strictly linked to social factors. According to Fabrizio Furbini, an expert on the sustainable practices of Enel, evaluating the social impact on local populations is paramount when deciding which strategies to implement. A solution implemented by Enel is instituting partnerships with local startups. The partnership is not only beneficial for Enel because local populations support and actively participate in building a sustainable facility, but the startups’ services will be converted into touristic facilities, such as restaurants, laundromats, and drycleaners (F. Furbini, personal communication, November 6, 2024). Table B summarizes our findings on the implementation of CSR and sustainability practices in developing countries, highlighting the various issues that LDCs are currently facing and the solutions proposed by Enel and Eni.

Table B: Implementation of CSR and Sustainability Practices in Developing Countries

Main Code	Key Findings	Description
Developing Countries	Developing countries are facing many problems	<ul style="list-style-type: none"> • Weak economic growth • Lack of productive capacity • Dependence on commodities • Sensitive to environmental shocks • Energy poverty
	Solutions of Enel and Eni	<ul style="list-style-type: none"> • Enel Green Power built renewable production plants in Latin America • Enel created a partnership with local startup, improving the tourism sector • Eni invested in local energy infrastructure in African countries

Developed Countries

The challenges of developed countries linked with sustainable transitioning are very different from those of developing countries. One of the main issues is their dependence on established infrastructure. Indeed, developed countries have built their infrastructure around fossil fuels, and even if the government intervenes with subsidies, “there is still a long way ahead to achieve low carbon energy systems” (Martins et al, 2018). This means that being sustainable not only means building new renewable energy plants but also building a better infrastructure to support and facilitate sustainable transitioning. In addition, sustainable transitioning is not only a matter of how to build the facilities that will produce renewable energy, but it is also a matter of how to produce enough energy to satisfy the global demand. Indeed, experts estimate that by 2050 “renewable energy can supply two-thirds of the global energy demand” (Dolf, 2019). For this reason, with the current amount of investment and effort, reaching the carbon emissions goal by 2050 is far from reality. Taking Italy as an example, Enel has been investing in large scale renewable plants in the past decades; in fact, many hydroelectric power plants have been built in the Alps and Apennines; photovoltaic plants in the south where there is more sun exposure; wind turbines in Sicily, Sardinia, Puglia, Campania, and Basilicata;

finally geothermal plants in Tuscany (Renewable Energy in Italy, no date). This reflects the extensive commitment that Enel has shown to create renewable energy plants that can power one third of Italian households by producing 110 terawatt-hours, equivalent to the energy produced by around ten million tons of oil (Renewable Energy in Italy, no date). On the other hand, Eni is highly investing in the sustainable production of hydrogen, this will exponentially decrease CO₂ emissions because it can produce high amounts of energy without generating any pollution (Hydrogen, the Potential of an Energy Vector, no date). Also, Eni Plenitude has been building EV charging stations all over Italian cities, a strategy also used by Enel X (E-Mobility e Rete Di Ricarica Veicoli Elettrici, no date).

Even if people adopt more sustainable and environmentally friendly behaviors, their efforts will still be limited by the pollution of many companies. Corporations pollute much more than people, and even if consumers adopt a sustainable mindset this is not enough to change the world. Indeed, 71% of global greenhouse gas emissions have been generated by just 100 companies. And only 25 corporations are responsible for 50% of global industrial emissions. (Waugh, et. al, 2022). Nonetheless, in the past years, there has been a trend for shareholders and governments to push companies towards sustainability. In fact, “large corporations have been pressured to adopt a sustainable approach” sacrificing some of their profits for the sake of the environment (Frontiers, no date).

In summary, introducing sustainable practices in developing countries is far more difficult than expected, not only because of the lack of infrastructure, but mainly because they are facing more pressing and urgent challenges such as the lack of undifferentiated offerings, dependence on cheap exports, and sensitivity to environmental shocks. On the other hand, implementing sustainable practices in developed countries is also difficult because of their

dependence on existing infrastructure and lack of sufficient investments. Despite requiring two different approaches, both developing and developed countries are paying for the consequences of overproduction and unsustainable business practices.

Nowadays, Climate Change is occurring greatly faster than predicted mainly because of individuals and companies' greenhouse gas emissions. For this reason, businesses must take action to lower the emissions, consequently lowering their impact on the environment. Indeed, many corporations around the world are committed to achieving several SDG goals listed in the 2030 Agenda, adopted by all United Nations Member States in 2015. This paper analyzes two companies directly involved in sustainable goals, Enel S.p.A and Eni S.p.A. These two companies operate in two different sectors, respectively energy sector and oil and gas sector; however, in the last years, Eni has grown its focus on renewable energy, such as solar, wind, and hydro. For this reason, the core aims of this paper are to understand the main differences and similarities between two opposite approaches, proactive and reactive ones, in the electricity sector in relation to sustainability. Proactivity is a strategic approach aimed at anticipating future challenges, consumer needs, and market changes, based on innovation and long-term planning. Table C summarizes our main findings on the implementation of CSR and sustainability practices in developed countries.

Table C: Implementation of CSR and sustainability practices in Developed Countries

Main Code	Key Findings	Description
Developed Countries	Lack of sufficient funds and effort	<ul style="list-style-type: none"> • Heavily reliant on existing infrastructure and fossil fuels • Need a huge improvement in infrastructure • Current investments are not sufficient
	Solutions of Enel and Eni	<ul style="list-style-type: none"> • Enel has built many renewable plants in Italy, powering 1/3 households. • Eni focused on sustainable hydrogen production

Proactive Sustainable Practices: The First Mover Case of Enel S.p.A

Enel S.p.A adopted a proactive approach with the first investments in renewable energies, mainly solar and wind energy, in Europe in the early 2000s. A strategic shift occurred in 2008 with the foundation of *Enel Green Power*, a subsidiary dedicated to renewables only, which marked an important change in the company's position in the market. Indeed, Enel aligned itself with some SDGs of the 2030 Agenda, in particular SDGs 7 (Affordable and Clean Energy), 9 (Industry, Innovation, and Infrastructure), 11 (Sustainable Cities and Communities), and 13 (Climate Action), becoming the first private renewable mover worldwide. Later, Enel decided to create a long-term strategy based on a sustainable value creation focused on the direct involvement of all the stakeholders in order to conduct the so-called *Materiality Analysis*. It allows the company to identify the main topics that could have a negative impact on the business and to meet the expectations of the stakeholders. This long-term strategy is focused on a problem-seeking approach based on collaboration with sustainability and technological experts to identify possible solutions to important problems. For instance, in 2017 Enel created an online platform, *openinnovability.com*, where everyone can publish ideas and solutions to the challenges presented by the company. Over the years, the company changed many strategies, but

all of them are always based on the same pillars: growth in renewable capacity, grid development, automation, and digitalization (Enel, 2018). Currently, the company is improving its renewable capacity by investing in photovoltaics, wind turbines, and hydropower generators to achieve the targets described in the Plan of 2023-2025. First, the company has invested large amounts of capital in about 70 plants generating 2,238 MW of solar energy (Enel S.p.A, 2021). For instance, in 2010 Enel has created the so called 3Sun, a gigafactory established in Catania, Italy, to produce innovative photovoltaics modules able to guarantee clean and renewable energy. Another important project realized by *Enel Green Power* is the establishment of a photovoltaic plant in Trino, Italy, able to meet the needs of 47,000 households, reducing emissions by 56,000 tons of CO₂, and saving 29 cubic meters of gas (Enel Group, 2024). Enel has already implemented, and plans to implement, many other projects related to solar energy in the future, contributing to the goals of decarbonization and reduction of emissions. Despite all the beneficial effects, Enel is working on a strategy to provide cost-effective solutions for customers since their decision-making is influenced by both short-term costs and long-term benefits. Indeed, as Figure 1 below shows the constant change of the global average cost for installing solar photovoltaics (PV). In 2010 it was more than \$4,500 per kilowatt, instead, in 2018 the installation costs were around \$1200 per kilowatt, and they are projected to decrease arriving at being around \$300 per kilowatt. It is important to note that the costs for the installation of solar PV can vary depending on the country and on its level of development in the solar market (Fernandez, 2023).

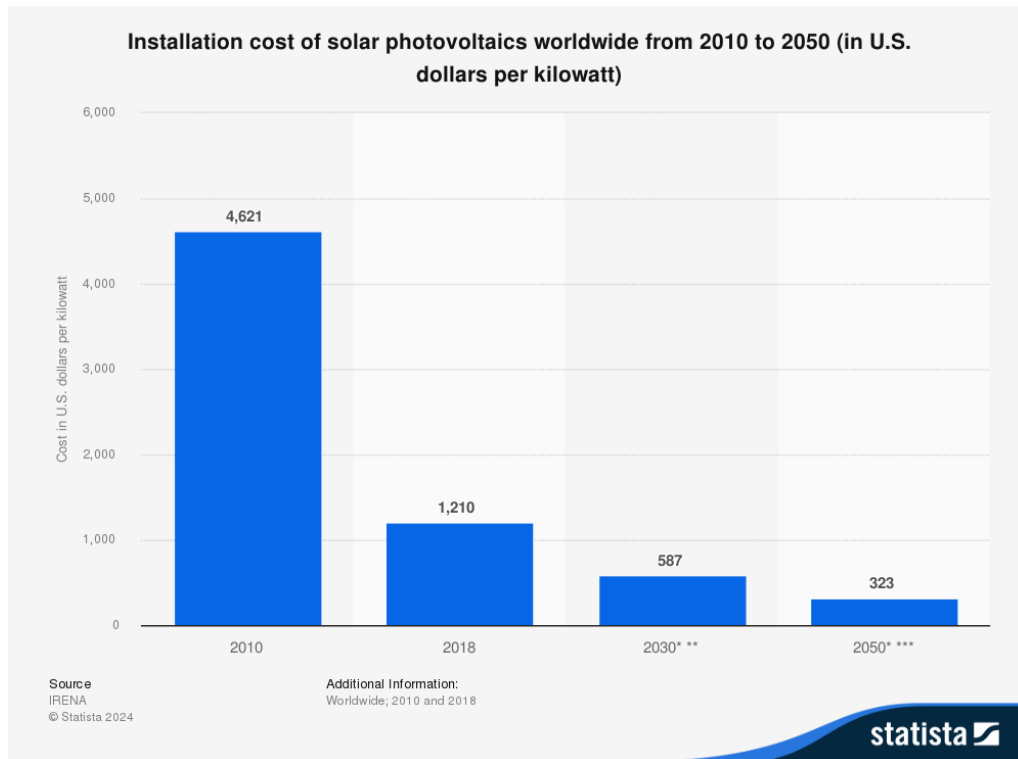


Figure 1: Installation Cost of Solar Photovoltaics Worldwide from 2010 to 2050 (IRENA, 2024)

Continuing with the analysis of wind energy, Enel has built about 70 plants of which 2,596 MW of wind. It has created the so-called wind farms, a site used as an energy generator thanks to wind turbines (Enel Green Power, 2024). They are spread in different countries, such as Europe, Latin America, and North America, and one of the most important examples is the *White Cloud* wind farm, in the United States, where they invested \$380 million (Enel Group, 2020). Moreover, Enel is working on innovative projects like the floating wind farms with the aim to take advantage of wind in sites where wind turbines cannot be installed. Finally, hydropower is the clean source that generates the largest amount of electricity. Indeed, according to the International Energy Agency, the generation of energy in 2023 was 4,250.5 TWh, more than the sum of all renewable resources' productions (International Energy Agency, 2024). For Enel it is the most important renewable source, in fact it accounts for 31.46% of its capacity, since it has numerous benefits for both the environment and the customers. For instance,

hydropower plants can generate electricity continuously, and the company can also schedule the production, and it does not create greenhouse gas emissions (Enel Group, 2024). Enel's commitment to invest in these three renewable resources is critical to achieving its main goals, which are decarbonization and emissions neutrality by 2040. Finally, Enel first mover position has allowed the company to increase the renewable capacity of 63 GW and establish a global presence in the renewable energy sector. The main advantages can be categorized in three different sections: profitability, efficiency, and sustainability. Starting with profitability, it refers to the ability to allocate capital and to increase the return. In 2023, the gross operating margin was € 7,461 million. The total amount of investment did was € 5,280 million thanks to which Enel counts 1,899,419 km of grids. Moreover, 8GW of renewable distributed capacity are connected to these grids, serving around 70 million people around the world. Efficiency refers to the minimization and organization of costs and to the maximization of cash generation. Enel increased the cash generation by 63% in 2023 and it reduced costs by 200 million euros. Finally, Enel is committed to reduce the impact on the environment indeed, the company reduced the total amount of emissions by 50% from 2017 and 2023. To remark on the previously described financial performance, thanks to its sustainable strategy, Enel is still increasing the firm's value for its stakeholders, such as investors, employees, and customers. Table D summarizes the main findings of the proactive sustainable practices that have been implemented by Enel.

Table D: Enel's Proactive Sustainable Practices

Main Code	Key Findings	Description
Proactive Sustainable Practices	Long-term Strategy	<ul style="list-style-type: none"> • Problem-seeking approach • Involvement of the stakeholders to meet their expectations • Greenhouse gas emissions reduction by 50% from 2017 to 2023
	Growth in Renewable Capacity	<ul style="list-style-type: none"> • 1,899,419 km of grids • Increase of investments in hydropower generators since it is the most important renewable source of Enel
	Cost Effective Strategy	<ul style="list-style-type: none"> • Short-term costs and long-term benefits
	Renewable Energy Project	<ul style="list-style-type: none"> • Wind farms in Europe, Latin America, and North America

Reactive Sustainable Practices: The Second or Later Mover Case of Eni S.p.A.

Eni is a follower in the renewable energy market, but it is rapidly adapting to sustainability and innovation through the development of multifaced strategies. Born as a public entity and then became a publicly traded company, Eni is an Italian multinational energy company with a global presence in the oil and gas sector. In 2014, to respond to an electric transition, Eni changed strategy and rapidly entered the market for renewable resources, founding, in 2022, *Plenitude S.p.A.* As Enel, also Eni has developed a strategic plan for the years 2024-2027 which emphasizes security, decarbonization, and affordability as stated by the Chief Executer officer Claudio Descalzi. The company's aim is to achieve carbon neutrality by 2040, but also to develop new technologies and business models customized according to different countries and costs. Eni is committed to some United Nations SDGs, such as SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action). As demonstrated by Figure 2 below, Eni is increasing the effectiveness and the efficiency of its strategy in different countries in order

to achieve its sustainable goals; in fact, in all the countries in which the company is currently working, it has achieved at least 50% of completion.

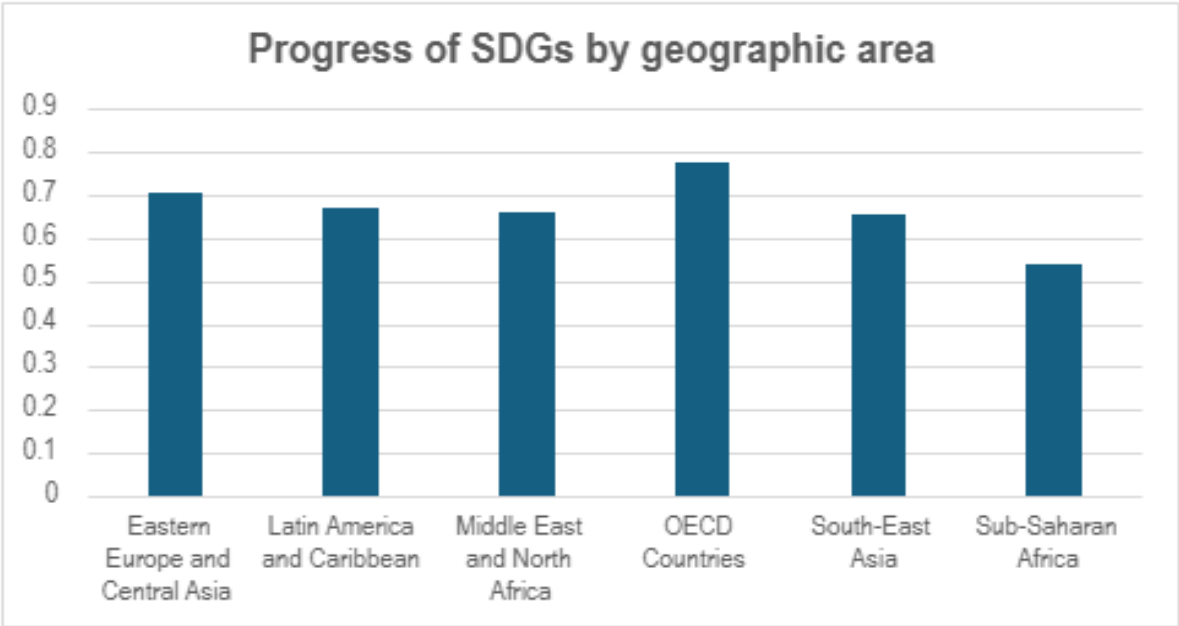


Figure 2: Progress of SDGs by Geographic Area (Statista, 2023)

As Enel, also Eni conducted the materiality analysis, focusing on analysis of the external and internal environment, identification of negative and positive impacts, evaluation of them, and consolidation of results. With this analysis, the company directly involved around 1,200 stakeholders to meet their future expectations and requests. To achieve its main goals, Eni has created a new strategy based on partnerships which is focused on the increase of renewable installed capacity, reduction of consumption, and development of e-mobility. The principal renewable energy sources in which Eni is investing are solar and wind ones. For instance, in 2023 Eni, thanks to a joint venture with CDP Group and Copenhagen Infrastructure Partners, reached an agreement to create three floating wind farms in Italy. These wind farms will be built between 2028 and 2031, and they will reach a capacity of 3GW, meeting the electricity need of 2.5 million households. Moreover, Plenitude signed an agreement with Galileo, an investment and energy development platform, for the creation of eight photovoltaic projects in Italy. Other

important joint ventures were created to develop wind farms in Spain, United Kingdom and Norway and to develop photovoltaic systems in Greece (Eni Plenitude, 2024). As a second mover in the market of renewable energy, the company used technologies already used by the first mover in order to reduce the risk of the adoption of new technologies and the relative costs. Indeed, by knowing which strategies have been profitable, or what sites are best suited, Eni is able to reduce the R&D costs. Moreover, also the creation of partnerships allowed the company to share risks and costs, and to benefit from the expertise of its partners. Analyzing the achievement and the performance of the company, an increase of 0.8% over 2022 can be seen in the installed capacity of renewable power generation facilities; it reached 3GW of installed capacity of which 36% wind energy and 64% photovoltaics. However, the company produced more energy with wind energy, about 56% and only 44% with photovoltaic systems. Moreover, it has reduced CO2 emissions by 27% respect 2022. Analyzing the financial performance of the company, thanks to its strategy, in 2023 the net profit was €219 million while the net capital expenditures were €9.2 bn. Finally, the investment made by Eni for research and development was €38 million. Eni is gradually integrating renewable energy into its operations in order to achieve its sustainable goals and gradually improving its financial performance. Overall, the proactive and reactive approaches present substantial differences in terms of performance, but they are very similar in terms of focuses and objectives. The early entry of Enel has allowed it to establish a global presence, operating in numerous countries. Indeed, its investments, used to develop innovative renewable energy sources, resulted in a strong and improved financial performance. On the other hand, the second mover is expanding its renewable energy capacity, but it still has a long way to go to reach the market size of Enel. Eni has adopted a different strategy based on partnership to lower risks and costs and to rapidly expand its presence in the

renewable energy market, allowing them to invest money where the returns are almost guaranteed. Table E displays our findings on Eni’s sustainable initiatives, strategies, and results achieved.

Table E: Eni’s Reactive Sustainable Practices

Main Code	Key Findings	Description
Reactive Sustainable Practices	Materiality Analysis	<ul style="list-style-type: none"> • Analysis of the external and internal environment • Stakeholders' involvement • Performance evaluation
	Sustainable Development Goals	<ul style="list-style-type: none"> • Eni has completed at least 50% of its SDGs
	Joint Venture and Partnership	<ul style="list-style-type: none"> • CDP Group and Copenhagen Infrastructure Partners: creation of three floating wind farms. Meet needs of 2.5 million households • Partnership with Galileo to create eight PV projects
	Production	<ul style="list-style-type: none"> • 56% wind energy • 44% solar energy

First and Second Movers – Benefits and Limitations

Enel’s First Mover Benefits

In theory a proactive CSR and sustainability strategy or a “first mover” is the first company to bring an innovative product or service in the market; instead, the “second or late mover” usually enters the market after the first mover and it reacts to already developed innovations (Cleff, Rennings, p. 171).

The first factor determining the benefits of first movers is a high level of technological capability which creates cost advantages and, at the same time, increases plant availability and service quality. A firm can differentiate itself from the competitors through its technological resources, mainly IT infrastructure, ability to leverage IT intangible benefits, and human technological skills; all these resources contribute to the creation of technological capability. However, to gain a competitive advantage, it is not enough to have these resources, but the company must be able to combine them together. Companies that are successful in creating IT

capabilities will increase their revenues and/or decrease their costs (Bharadwaj, 2000, p. 176). Additionally, being the first to introduce a technological innovation guarantees the achievement of economies of scale which means spreading the costs over a larger production volume. Consequently, thanks to a cost reduction, the first mover could lower the costs of the services or products offered or offer better goods at the same price level as competitors. The second important benefit is the priority on assets and people, such as highly skilled workers, facilities, or distribution channels. Especially in the renewable energy market, it is important to have priority in choosing geographical locations where the company can build plants. For instance, Enel was one of the early movers to establish wind farms in the United States, especially in Texas, known for its wind potential, where it built the *High Lonesome Wind Farm*. Finally, first movers can better access the green finance market directly related to all the activities aimed to reduce the impact on the environment. Indeed, Enel, to finance new development, construction and repowering projects for its facilities, has placed three Green Bonds, for a total of 3.5 billion euros, between 2017 and 2019 (Enel Group, 2023).

Eni's Second Mover Benefits

The first competitive advantage of second movers is related to the possibility to imitate products or services already introduced by early movers. Moreover, second movers do not have to face the so-called sunk costs, past costs that cannot be modified, such as the cost for research and development. On the other side, later movers do not have to face these costs because they can directly learn from first movers' experience, avoiding possible mistakes (Carpenter and Shankar, 2013). It is important to highlight that also the second movers invest in innovations so much so that they can identify areas of improvement and enhance the quality and performance of products or services previously offered by first movers. For instance, Eni has decided to adopt a

pragmatic approach in order to pursue a mix of energies and solutions while minimizing costs and maximizing the use of input factors. Additionally, Eni has adopted a satellite model which allows flexibility and a better allocation of existing assets (Eni, 2024). These approaches still help the company to mitigate risks related to innovations as learned from first movers' experiences in downturn conditions. Finally, second movers can benefit from the regulatory experience of first movers, finding environmental regulations clearest and stable. Indeed, usually Governments change environmental regulations on the base of first movers experience, avoiding the possibility that the same mistakes could be remade. For instance, after Enel's adoption of renewable resources, Italy decided to make changes at its National Energy Strategy. It reduced Feed-in tariffs (FITs), aimed to eliminate privileges in terms of costs, and redistributed in terms of consumption.

Enel's First Mover Limitations

Despite all the benefits described above, it is also important to consider the possible limitations of the development of first movers. For instance, not all the companies that decide to enter a new market can effectively achieve some benefits; on the contrary, they might face difficulties in protecting the intellectual property of their innovations, giving the possibility to competitors to use them to enter the market. Additionally, first movers must face huge initial costs of implementation and development which do not always lead to successful results, depending on the capability and the knowledge of the company. Finally, first movers are highly influenced by countries' regulations especially in the market for renewable energy where regulations are in continuous change. For instance, in 2020 the European Union issued the regulation 2020/852/EU about the Taxonomy Regulation which establishes the basis for which companies could be considered environmentally sustainable (European Commission, 2020). This

means that companies must follow specific sustainable standards to be considered environmentally sustainable. Indeed, as pioneer in the market for renewable energy, Enel faced difficulties especially in countries where environmental regulations are more stringent that have slowed down the development of projects. For instance, in Latin America, Enel faced difficulties in implementing grids because of the need for new regulations to renovate existing infrastructures. This has been helpful to Eni, which has learned from Enel's mistakes and thus has emphasized compliance frameworks aligned with local regulations (Barnabei, 2024).

Eni's Second Mover Limitations

Second movers face limitations, especially in catching up first movers in terms of expertise and market influence. Considering the particular case of Eni S.p.A, it transitioned from being a company specialized in oil and gas production and distribution, to being focused on the development of renewable energies. This process could be costly and very slow since it involves the adoption of new technologies with the consequent need for highly skilled workers, and a change in the supply chain management. Additionally, the company could face difficulties in combining existing infrastructure with renewable energy projects since they require efficiency and complex asset allocation. For this reason, Eni should be able to combine its technological development with the satisfaction of customers in order to increase loyalty.

Similarities

First and second movers, in this case Enel and Eni, respectively, are similar in terms of strategies even though the timing is different. Both the companies applied a strategy focused mainly on solar and wind energy and based on partnerships with local communities and corporations and joint ventures. Additionally, they signed together an agreement to permit customers with electric vehicles to charge them using the infrastructure of Eni and Enel available

in the Italian territory. Lastly, they are focusing on the same sustainable goals, the main one is Carbon Neutrality by 2050 in order to reduce their impact on the environment and meet the expectations of the stakeholders. Table F summarizes the key findings in terms of benefits and limitations of Enel and Eni.

Table F: First and Second Movers' Benefits and Limitations

Main Code	Key Findings	Description
First Movers	Benefits	<ul style="list-style-type: none"> • High level of technological capability • Economies of scale • Priority on assets and highly skilled workers • Better access to green finance market
	Limitations	<ul style="list-style-type: none"> • Difficulties in protecting intellectual property • Huge costs for development and implementation • Environmental regulations influence
Second Movers	Benefits	<ul style="list-style-type: none"> • Reduced R&D costs • Enhance technological quality • Environmental regulations already applied by first movers
	Limitations	<ul style="list-style-type: none"> • Expensive transition process • Difficulties to use existing infrastructure for renewable energy

Sustainability Strategies and Stakeholders Management

An important question regarding for-profit firms is whether being sustainable improves their relationships with key stakeholders such as investors, employees, and clients.

Investors

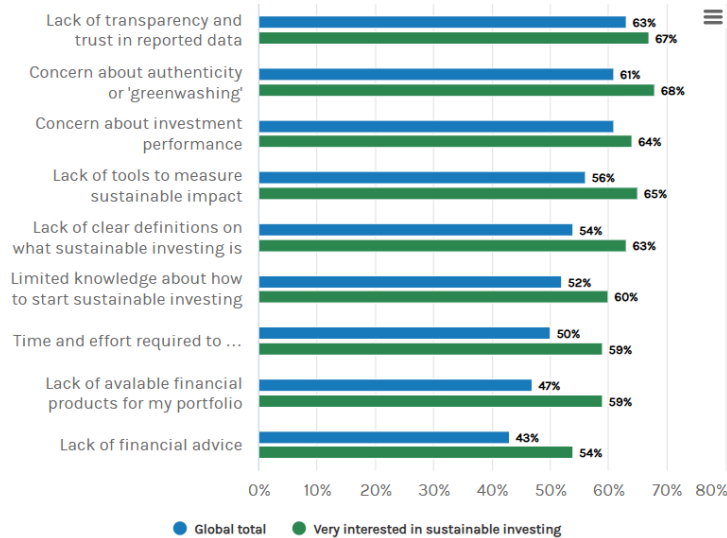
When dealing with investors, a paramount element is Socially Responsible Investing (SRI). In general, SRI involves “integrating personal values and societal concerns with investment decisions” (Statman 2006, p. 32; Shank et al., 2005, p. 14). This, however, cannot be theoretically defined since there is no financial framework that can link social responsibility to an investment performance. Therefore, SRI is completely subjective because what is considered

sustainable by one investor might not be considered as such by another (Berry and Junkus, 2013). This concept is deeply intertwined with a company's financial performance. Since more and more investors decide to invest in firms that are adopting sustainable business practices, companies must follow the trend if they want to raise capital in the stock market (Mackey, 2022). Indeed, this is especially true in the case of Enel because the percentage of ESG-focused investors has increased during the past years. On September 5th, 2019, Enel launched the "world's first bond for general purposes linked to the SDGs," as a result, the bond was "oversubscribed by almost 3 times, totaling US\$ 4 billion" (Enel's Innovability, 2019, p. 18). These positive events not only reflect a shift in Enel's corporate culture, but also a shift in the values of society, that, by allocating more money towards sustainable financial means, they reflect the importance of sustainability (Energy Transition, Enel's Solutions, 2023). This also applies to Eni and its relationships with their shareholders. As discussed before, Eni is adopting a 'satellite model' allowing shareholders to invest in more sustainable practices, rather than focusing only on oil and gas. For instance, Eni decided to create a new subsidiary "Eni Plenitude" that only focuses on 100% sustainable business practices, since they realized the importance of decarbonization and renewable sources of energy (Eni's Satellite Model, no date). This captures the investments of environmentally conscious investors, improving Eni's relationship with their stakeholders (Eni's Satellite Model, no date).

In general, sustainability innovations increase a firm's value creation. This is especially true for manufacturing firms because it is easier to identify business opportunities for sustainable innovation in the manufacturing sectors because pollution and emissions can be observed relatively easier (Hermundsdottir, 2020). In addition, according to Fabrizio Furbini, SRI is a very powerful means to align the values of the companies with the ones of the shareholders, directly

rewarding companies that reflect sustainable values rather than companies who prioritize profits (F. Furbini, personal communication, November 6, 2024). However, it must be said that the majority of research that has been conducted only focused on environmental sustainability rather than other types of sustainability. Moreover, companies prioritizing sustainability will benefit from a lower cost of capital because they attract more investors. They also receive higher valuation by a margin of 20% (Whelan et al., 2016). A study conducted by the Morgan Stanley Institute for Sustainable Investing observed that 77% of individual investors are “interested in investing in companies or funds that aim to achieve market-rate financial returns while also considering positive social and/or environmental impact”. It has also been observed that over 80% of investors, who are considering whether or not to invest in a new company, pay a lot of attention to its sustainable report and to its carbon footprint. Figure 3 shows that there are many barriers to sustainable investing such as lack of transparency that concerns 63% of investors, greenwashing that concerns 61% of investors, and the lack of tools to measure sustainable impact that concerns 54% of investors (Morgan Stanley Institute for Sustainable Investing, 2024).

Top Barriers to Sustainable Investing



Source: Morgan Stanley Institute for Sustainable Investing, January 2024

Figure 3 (Morgan Stanley Institute for Sustainable Investing, 2024)

Experts estimate that around \$30 trillion, over 30% of global assets under management, is “to be invested with some form of sustainability integrated into the investment process” (Morgan Stanley Institute for Sustainable Investing, 2024). One of the main reasons for this shift towards sustainable investment is the normative pressure. Indeed, investors that face more normative pressure invest less in unsustainable companies compared to those with fewer normative constraints. Therefore, governments with their policies and norms can influence companies to adopt sustainable strategies in their business plan. This process is also influenced by investors’ geographical roots. For instance, if a country invests more towards SDGs and is committed to reaching sustainable goals, investors are more likely to follow this path. On the other hand, investors from countries where sustainability is not a priority, own more shares of unsustainable

companies (Zanten, 2018). Investors, governments included, are more willing to invest money in projects that implement sustainability at all levels, from the supply chain to the delivery process. Enel managed to get funds from the International Finance Corporation because their sustainability plans implemented CSR that would benefit the local population in Guatemala and Perù as explained previously (F. Furbini, personal communication, November 6, 2024). In conclusion, financial experts claim that green assets, companies who are considered sustainable, have granted higher returns than brown assets, unsustainable companies, even if this might be partially due to market shocks caused by exceptional events (Lubos, 2022). Table G summarizes our findings on how implementing CSR strategies can positively impact on the company’s relationship with investors.

Table G: Sustainability and Stakeholders Management – Investors

Main Code	Key Findings	Description
<i>Investors</i>	Investors are more sensitive and attracted to sustainability	<ul style="list-style-type: none"> • Socially responsible investing has been a recent trend among investors • If companies want to raise capital at a lower rate, they have to implement sustainability in their business plan • Enel launched the first SDG bond, and the market response was positive • Eni’s satellite model allows shareholders to choose where to invest their capital

Employees

The second stakeholder that is directly influenced by the company’s decision about being sustainable is employees. Being sustainable has two major benefits for a company when talking about sustainability. The first one being the attraction of “talented individuals who are passionate about sustainability, resulting in continuous innovation” and the second one being a more engaged workforce. Indeed, experts claim that when working in a sustainable company,

employees have 55% better morale, 38% increased employee loyalty, and 16% increased productivity (Whelan et al., 2016). To foster innovation in the field of sustainability, Enel created its first Innovation Hub in Tel Aviv, a location full of “innovation, talent, and capabilities” (Enel’s Innovability, no date, p. 13). In addition, they also established partnerships with universities all over the world, creating a mutual share of technological innovation, allowing Enel to develop better technologies, while offering job opportunities to students (Enel’s Innovability, no date).

Moreover, employees want to feel that their job is meaningful, and it aligns with their values. For this reason, they not only look at what the organization is doing for them at an individual level, but they are also looking at the bigger picture of what the company is doing for society. If employees agree with the sustainable values and efforts of their company, they display a much higher engagement level, “thus leading those employees to develop and nurture a positive fulfilling, work-related state of mind namely characterized by vigor, dedication and absorption” (Ferreira, 2022, p. 248-249). For instance, Eni includes its employees in all decisions by fostering an environment where everyone can actively participate. Eni adopted a system of benefits and corporate welfare aimed at improving the well-being of employees (Eni, 2024). For instance, this idea is also shared by Chenxing since employees who work in polluting companies are less satisfied and happy (Chenxing, 2023). In particular, figure 4 shows that workers aged between 30 and 40 are more sensitive to this topic, perhaps because they have children, and they know the harm that their company is causing to the environment (Deloitte, 2023).



Figure 4 Employee opinions about employer’s sustainability actions (Deloitte State of the Consumer Survey, 2023)

Nowadays, employees want to see their company change something in the way they carry out business. From the graph of Figure 4, it is clear that younger generations, workers 18-34 years old, are more interested in this topic than older generations because they can see that the long-term implications will directly affect their future. Overall, however, there is a consensus among all age cohorts to adopt more sustainable business practices, demonstrating that employees are demanding a change (Deloitte, 2023). Table H summarizes our findings on the impact of sustainable business practices on a firm’s employees.

Table H: Sustainability and Stakeholders Management – Employees

Main Code	Key Findings	Description
<i>Employees</i>	Employees are more satisfied when working for a sustainable company	<ul style="list-style-type: none"> • Employees produce more if they feel that their job is sustainable • Companies can attract more talented workers that share the same values of sustainability • Enel has created an Innovation Hub and many partnership with universities to recruit talents • Eni includes employees in every decisions and fosters wellbeing

Customers

The perhaps most important stakeholder group of firms is their customers. One of the main benefits of sustainability for customers is the lower price for electricity. Indeed, “most renewable energy obtained from newly installed systems costs less than even the cheapest coal-fired power plants” (Enel, 2021). Experts estimate that investing in renewable energy would mean decreasing the average household electricity bill by \$500 annually (Higgins, 2022). According to experts, loyal customers have been proven to be less price sensitive, and a good predictor of loyalty is CSR strategies. Therefore, customers become loyal when they feel part of a change that will help the world, as well as enjoying a lower price for renewable energy (Hagelborg, 2018). Customers also develop positive feelings, and they become more engaged, which will also generate a positive word of mouth. Since gathering new customers requires a high financial investment, companies can increase loyalty and positive word of mouth by being sustainable, which will generate new leads (Abbas et al., 2022). In conclusion, customers feel more rewarded and satisfied when purchasing energy from a sustainable provider because they feel part of a change. This increases customer loyalty and word of mouth, improving the

relationship between companies and consumers. Table J summarizes our findings on the relationships between a sustainable company and its customers.

Table I: Sustainability and Stakeholders Management – Customers

Main Code	Key Findings	Description
Customers	Customers pay more attention to sustainability	<ul style="list-style-type: none"> Customers benefit from a lower electricity price They feel part of a change towards sustainability

Sustainability Strategy and Financial Performance

Profitability

Enel S.p.A and Eni S.p.A are Italian multinational companies that are currently operating in two different sectors, electricity and oil and gas respectively. However, both have changed their strategy to enter the market for renewable energy, introducing plans of action to achieve the same sustainable goals, such as Carbon Neutrality. For this reason, it is important to analyze and compare their financial performances in 2024, specifically on June 30th and understand the impact of these new sustainable strategies. Figure 5 represents, in percentage, the results in terms of profitability for both Enel and Eni.

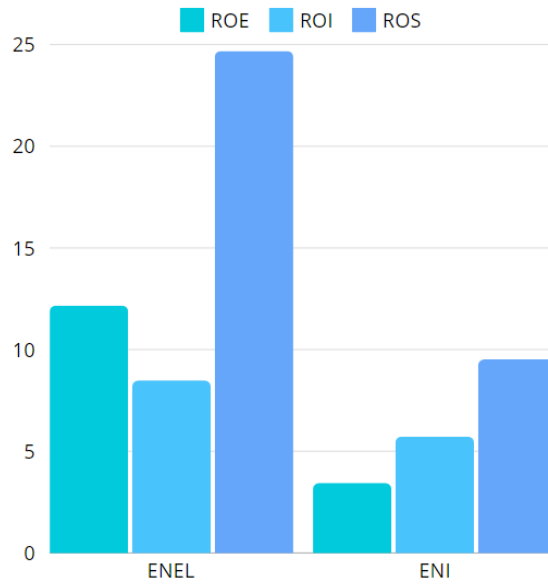


Figure 5: Profitability Ratios (Authors' elaboration, 2024)

We chose to analyze three main ratios for analyzing the firms' profitability: Return on Equity (ROE), Return on Sales (ROS), and Return on Investments (ROI). A high ROE indicates that a company is effective in generating profits from shareholders' equity. The ROS indicates whether the company is able to generate profit from its sales revenues. ROI is relative to the return achieved from investments made. A higher return on investments indicates that the company is effective at using its capital and assets to generate a return. Starting with Enel S.p.A, its ROE is much higher than the average of 10% since, as is shown in the table above, and this indicates that Enel generates 12.17% of profit for every dollar invested by shareholders. Continuing with ROS it is also high, but since it is positive it suggests that the company generates 24.69% of profit for every dollar of sales. Lastly, also the return on investment is good since Enel is able to generate 8.49% return for every dollar invested. However, it is important to notice the difference between the ROE and the ROI since the first one is much higher than the second one; this could refer to the ability of Enel to be particularly efficient at using equity to generate profit and a low level of borrowed funds relative to equity. The profitability analysis

continues with Eni, which has a ROE equal to 3.44%, which is a relatively low number, suggesting that the company is not efficiently using its equity. Also the ROS is low, 9.52%, and it indicates that the company may not have efficiently allocated its assets. Finally, Eni has a ROI of 5.73% which means that, for every dollar invested, it generates 5.73% return. Making a comparison between ROE and ROI, in this case the second ratio is higher than the first one, indicating that the company’s capital structure could be more leveraged. Considering all three ratios, the performance of Enel appears to be more efficient and potentially more profitable than Eni’s one, which should improve its efficiency especially in terms of assets allocation.

Furthermore, comparing three indicators, in particular Gross Margin, Operating Margin, and Net Operating Margin, is fundamental to understanding if the companies are able to generate profits. Figure 6 shows the percentages of three indicators chosen for both the companies.

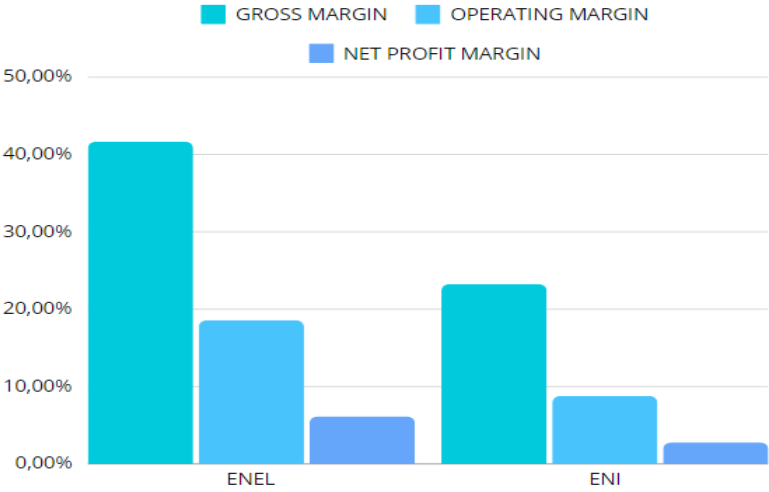


Figure 6: Profitability Indexes (Authors’ elaboration, 2024)

Enel’s Gross Margin is equal to 41.67%, which is pretty high and indicates that the company is efficiently managing the costs of goods sold (COGS) through efficient production processes. After the payment of operating costs, Enel registers an Operating Margin equal to 18.59% that reflects a strong control over operating expenses. Finally, after the payment of

interest and taxes, it has a Net Profit Margin of 6.14%, showing the overall profitability of the company since all the expenses are already deducted. Overall, Enel, with an effective operational management, is conducting profitable business.

Eni has a Gross Margin of 23.26% and this index indicates that the company can sustain the costs of goods sold. Additionally, Eni is able also to generate an Operating Margin of 8.78% that indicates that the company might have higher operating expenses compared to the revenues. Finally, the Net Profit Margin is equal to 2.78%, which is relatively low, indicating a limited profitability after the payment of interest and taxes.

Comparing the two companies, Eni seems to have less margin across the indexes and so to have great challenges for being profitable. Instead, also in this case, Enel's indexes show greater efficiency in terms of operations. Overall, both companies are currently profitable even though they have different results.

Costs

One of the core aspects that should be considered to understand if a company's strategy is efficiently applied, is the operating expense, which is directly related to the company's operations. In 2023 Enel's expenses amounted to 81,447 million, which includes Fuel & Purchased Power (46,270 million), Operations and Maintenance (1,134 million), Depreciation and Amortization (6,353 million), and Other Operating Expenses (27,690 million). According to the financial statements of the company, the operating expenses decreased by 35.96% compared to 2022 and this reflects, as previously shown, the efficient management of the operations inside the company. On the other hand, Eni operating expenses amounted to 12,615 million, including R&D expenses, Selling General & Admin Expenses (3,645 million), and Other Operating

Expenses (-74 million). According to its financial results, Eni has decreased its operating costs compared to 2022.

Both companies, in the last years, have reduced their operating expenses by applying new strategic plans in order to achieve their main sustainable goals. Lastly, the difference between Enel and Eni is given by different kinds of operations, different approaches and strategies. Table J summarizes the key findings in terms of the financial performance of both companies.

Table J: Financial Performance

Main Code	Key Findings	Description
Sustainability Strategy and Financial Performance	Profitability	<ul style="list-style-type: none"> Enel's performance is more efficient and profitable than Eni's one. Eni has less profit margin
	Costs	<ul style="list-style-type: none"> Both companies reduced costs Differences in terms of operations and strategies

Discussion

Our study analyzed the sustainable strategies of MNEs in the energy sector. Conducting a comparative case study with two leading Italian energy companies, Enel S.p.A. and Eni S.p.A., we explored their investments into renewable energy practices from a proactive and reactive strategy perspective. By linking Enel and Eni's sustainable investment strategies to stakeholder relationships, it allowed us to contribute to the discussion of the literature on the financial performance impact of CSR and sustainability.

We found that Enel is considered the first mover in the industry of renewable energy, gaining a leading position. Enel specializes in the generation and distribution of electricity with a focus, in the last years, on renewable energy sources. After the establishment of the subsidiary

Enel Green Power, the company successfully managed to increase its positive impact on the environment and local communities, committing also to achieving several UN SDGs.

Additionally with a successful Sustainable Plan of action, Enel increased the capacity of energy produced using renewable sources, such as solar, wind, and hydroelectric, reducing also the final price for customers. As a first mover in the market, the company gained numerous benefits, such as: a high level of technological expertise, priority of assets and people, and early access to the green finance market. All these benefits helped Enel to reduce costs of production, achieving economies of scales with a consequent reduction in costs for customers. Moreover, being the first mover, the company had more freedom to choose locations that better fit their needs, as well as highly skilled workers. However, it is important to consider also the possible limitations that a first mover could face in the process of entering a new market. In this particular case, the main challenges faced are the elevated initial costs for Research and Development, and the environmental regulations which rapidly changed over the years.

On the other hand, our study identified the benefits and risks of a reactive strategy towards CSR and sustainability by investigating the second mover, Eni S.p.A which recently decided to enter also the renewable energy market. As in the case of Enel, also Eni changed various strategies to be successful in the market, in fact, in 2022 it founded *Eni Plenitude*, a subsidiary focused on renewable energy sources only. As a second mover, the company had the opportunity to imitate the products and services of the first mover, exponentially reducing the initial R&D costs. Additionally, by looking at the previous performances, second movers can identify areas of improvement to enhance their development and limit mistakes previously made, adjusting to environmental regulations. However, for second movers it is complicated to catch up with the first one especially in terms of expertise and market influence. In this case, Eni could

face difficulties in the transition from oil and gas to renewable energy; indeed, this process could be slow and expensive since it is difficult to develop new technologies and, at the same time, focusing on the satisfaction of customers in order to increase loyalty.

Moreover, our study critically analyzes that when companies are implementing sustainability in their business plan, their relationships with investors, employees, and customers improve. Firstly, shareholders are more likely to invest in companies that are sustainable, allowing companies to raise capital faster and at a lower rate. Therefore, if Enel and Eni want to raise capital, they can attract more sustainable investors by adopting green strategies in their business plan. For instance, Enel's green bonds attract a huge portion of sustainable-oriented investors, improving their relationships with shareholders while raising capital at a low rate. In addition, Eni also managed to improve its relationship with investors by allowing them to choose where to allocate money, thanks to their Satellite business model. This process is also deeply intertwined with the geographical roots of investors. If they live in a country committed to SDGs, they will invest more in sustainable companies and vice versa. Secondly, employees experience the level of sustainability that a company implements in their daily work. Employees benefit from working in a sustainable firm because they feel that their job is meaningful and does not harm the environment. Indeed, Eni includes their employees in all their decisions, empowering them and allowing them to feel valued inside the company. In addition, they adopted a system of benefits and bonuses, rewarding their hardworking employees. This results in an increase in productivity, satisfaction, and employee engagement, directly impacting the profitability of the firm itself. In addition, companies can attract talented individuals that strongly believe in sustainability because they will share the same mission and values on the company, lowering the turnover and increasing talent retention. For instance, Enel has created many

partnerships with universities, and they have built the first Innovation Hub in Tel Aviv, allowing a free flow of technological innovation and recruiting the most talented students who have an interest in sustainability. In recent years, employees tend to look not only at what a company is doing for them, but also at what the company is doing for the society as a whole, shifting the emphasis to the societal benefits. Lastly, customers not only benefit from a lower price for electricity, but they also feel that they are actively helping the environment when choosing renewable energy rather than fossil fuel. This feeling of satisfaction generates both loyalty and a positive word-of-mouth, allowing the company to retain loyal clients who are less price sensitive, and capture a higher market share by attracting new customers who value sustainability. Therefore, by being sustainable, companies can improve their relationship with investors, who will invest more in companies who have a strong sustainable business plan in action; with employees who will be more motivated and attracted to work in sustainable companies; and lastly with customers who will happily spend their money for a service/product that is created by a sustainable company.

Finally, our analysis of both companies' financial performance shows that while both companies' sustainability strategies are innovative and commendable, Enel's proactive investment approach seems to have a greater positive impact on stakeholder management than Eni's reactive approach. A proactive approach to CSR and sustainability, and in particular to renewable energy investments, is challenging due to the high investment risk in today's rapidly changing technology environment. However, based on Enel's competencies in strategic innovation and industry analysis, important differentiation advantages for the first mover can be achieved as a source of long-term competitive advantage.

Limitations and Recommendations

Our study faces some important limitations. It is based on two companies operating in the market for renewable energies, which may not be representative of the companies operating in other industries and sectors. Moreover, the study relies on interviews with company representatives and public datasets and reports developed mainly by the case companies. Finally, the study was conducted over a three-month period, limiting the collection of additional data. We recommend future studies to investigate the sustainable strategies of MNEs from different industry sectors by collecting multi-level primary data at the organizational and stakeholder levels as well as complementing it with longitudinal data from publicly available databases.

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