



## **Introduction to General Electric**

General Electric (GE) is a multinational conglomerate that operates in a wide range of industries. Their key operations are within the healthcare, aerospace, renewable energy, and power generation space. One of GE's long-term goals has been to create specialized and versatile divisions of their brand. This goal has culminated in a "spin-off" strategy, where GE is separating parts of its business into separate companies all within the portfolio of the GE as a parent company. This began in January of 2023 when GE separated its healthcare practice into a separate company called GE Healthcare. While GE still maintains a 19.9% stake in GE Healthcare, it is otherwise an independent firm. GE is planning one final split where it will divide its remaining three industries, aerospace, renewable energy, and power generation, into two separate firms. GE Aviation will include all aerospace operations and GE Vernova will include the renewable energy and power generation components.

The renewable energy component of GE Vernova is made up of onshore and offshore wind divisions. Both involve the generation of renewable energy from wind turbines, the difference lies in their locations. Onshore wind farms are usually built on flat fields whereas offshore wind turbines are located off the seacoast. They also have differences in set up, size, and cost.

## **Problems related to the wind energy**

Wind energy has received heavy investment from companies in the industrial manufacturing and power generation space because it is seen as the future of clean energy. The problem is that the future isn't here yet, and companies like GE are having a hard time scaling their wind energy operations into

profitable ventures. In Q2 of FY2023, GE Vernova reported a net profit loss of \$400 million and then another \$300 million lost in Q3. Offshore wind especially has been a money drain, as companies are still trying to figure out how to manufacture these massive, complicated, aquatic products. Offshore wind at GE only produces 50-80 turbines a year and the production process is littered with errors and delays as their teams try to muddle through this relatively new process. If one turbine is delayed due to an infinite number of potential errors, then the whole year's production schedule is delayed. With these delays come costly penalties for not promptly delivering on the contracts that these manufacturers sign with the energy companies who buy the turbines. Some companies are beginning to divest from the wind energy space or at the very least lowering their expectations for near-term profitability.

### **Wind energy in recent news**

#### **[Energy company pulls the plug on two major offshore wind projects on East Coast](#)**

**Source:** CNN, Ella Nilsen

**Summary:** Danish wind developer Orsted has decided to halt the development of two major offshore wind projects in New Jersey, citing economic pressures. Factors such as skyrocketing interest rates and supply chain challenges have led to this decision, impacting the offshore wind energy sector on the East Coast. The move is seen as ominous for the nascent offshore wind industry in the US, which is a key part of President Joe Biden's clean energy goals. The decision is a setback for the sector, which has been slow to take off in the US compared to other regions. The industry faces challenges in terms of building from scratch, tight supply chains, and vessel availability. Despite these challenges, the White House maintains that there is still momentum in the US offshore wind industry, which supports job creation, strengthens the power grid, and provides clean energy resources.

#### **[Wind Power Write-Downs Cast Shadow Over Industry Outlook](#)**

**Source:** WSJ, Giulia Petroni

**Summary:** High interest rates, inflation, and supply-chain challenges are causing wind-energy companies in the United States to incur significant impairments, raising concerns about the industry's future outlook. Orsted, BP, and Equinor have recently written off \$4.8 billion against their U.S. offshore wind projects. Danish company Orsted announced a \$4.02 billion impairment charge and abandoned two New Jersey wind projects due to escalating costs and supplier delays. Other companies like BP and Equinor have also faced impairments due to regulatory issues and rising costs. Some projects have been canceled, and companies are reevaluating their long-term targets. While certain wind projects are moving forward, the industry as a whole is grappling with financial challenges and increasing project costs. European policymakers are working on measures to address these issues and ensure a more competitive environment for the wind-energy sector.

#### **[Chevron Bets on Peak Green Energy](#)**

**Source:** WSJ, Editorial Board

**Summary:** Chevron's recent \$53 billion bid to acquire Hess Corp.'s oil and gas assets reflects the oil giant's belief in the continued demand for fossil fuels, despite the push for green energy. The acquisition follows Exxon Mobil's \$60 billion deal with Pioneer National Resources, driven in part by higher interest

rates that are prompting consolidation in the U.S. economy. The acquisition will expand Chevron's presence in the Gulf of Mexico and North Dakota's Bakken shale formation, with a significant offshore resource in Guyana. Chevron's move underscores its conviction that oil and gas will remain essential for the foreseeable future, given their higher returns on capital compared to renewables, even with government subsidies. The article also highlights that offshore wind projects and electric vehicle manufacturing are facing challenges and may not grow as expected, particularly in low-income countries where energy demand is rising. Despite climate lobby predictions of the end of the fossil fuel era, Chevron sees the real threat as being too little oil and gas, not too much.

### [Rich, white communities most likely to oppose wind farms, study finds](#)

Source: CNN, Ella Nilsen

**Summary:** A recent study by the University of California Santa Barbara has found that wealthier and predominantly white communities in the United States and Canada were more likely to oppose onshore wind energy projects. The study, which examined over 1,400 wind projects in both countries between 2000 and 2016, discovered that such opposition had grown significantly over time. While 17% of US wind projects faced opposition and 18% of Canadian projects were opposed, political affiliation did not necessarily determine the opposition. In the US, opposition was prominent in the Northeast, including New England states, New York, and New Jersey, while in Canada, Ontario experienced the most wind energy opposition. The study also highlighted how wealthier, white communities held more influence over the approval or rejection of these projects, often at the expense of communities of color near coal or gas power plants. The findings emphasize the need for equitable decision-making in the energy sector.

## **Objective**

You have been hired by OSW Consulting Firm to determine whether GE Vernova is a smart and profitable investment for them. When determining investment opportunities, OSW considers not only financial ROI, but also long-term strategic planning when it comes to societal impact.

Your task is to evaluate the state of the wind energy industry and make a decision for OSW Consulting. You are encouraged to do extensive outside research, including the state of other firms in this space. Your final deliverable is required to include the components below. Final presentations will be no longer than 15 minutes and Q+A will last another 10 minutes.

### **Students Will Conduct Research and Present On:**

- **Wind Energy Market Overview**
  - Current Events
    - You can include sources highlighted in this case prompt, but be sure to also include 1-2 outside sources
  - Major Industry Players
  - Market Analysis
    - This could include a SWOT, PESTEL, or other relevant analysis

- Teams should focus on both the industry as a whole and GE Vernova's relative place within the industry
  
- **GE Vernova Analysis**
  - Overview of who Vernova is and what their position is within GE
    - Include a breakdown of offshore versus onshore wind
  - What problems has GE Vernova faced specifically?
  - What is their position or competitive advantage relative to other industry players?
  
- **Financial Outline**
  - Create a Financial Analysis for the Industry.
    - Compare the profitability of GE Vernova to other major competitors.
    - Revenue, Costs, Growth Projections, Etc.
  - Include qualitative analysis explaining the factors that influence Vernova's profitability or lack thereof
  
- **Final Decision**
  - A yes or no answer on whether or not GE Vernova is a smart long term investment.
  - If yes, how should GE Vernova combat the highlighted challenges?
  - If not, what other industry may be a more attractive investment for GE?