Project 1: ""Financial Analysis and Investment Portfolio Management""

Analyse de l’entreprise Orsted

Analyse fondamentale :

Company Presentation

Ørsted, formerly known as DONG Energy, is a Danish company specializing in renewable energy, particularly offshore wind and biomass. Founded in 1972, Ørsted initially operated in fossil fuels before shifting its focus to more sustainable energy solutions. The company’s vision is to create a world where energy is produced sustainably. Its core principles include:

Adopting an ethical and sustainable approach, collaborating with communities and other market players and investing in research and development to find innovative energy solutions.

Ørsted holds a leading position in the renewable energy sector and has been a pioneer in establishing offshore wind projects. The company has demonstrated its ability to produce large-scale sustainable energy through flagship projects such as the Hornsea One wind farm in the UK. Ørsted aims to achieve 30 GW of installed renewable capacity by 2030, with a target to become carbon neutral by 2025.

Additionally, Ørsted is committed to reducing its environmental impact and has participated in initiatives to restore biodiversity and minimize the ecological footprint of its activities.

What they Do:

- Development and operation of offshore wind farms, which constitutes their core business.
- Onshore wind energy projects to diversify their energy sources.
- Conversion of some facilities to use sustainable fuels.
- Investment in technologies to store energy, allowing for better management of production.

Current Analysis of the Renewable Energy Sector

State of the Market:

Since the early 2000s, the renewable energy sector has experienced significant growth, driven by increasing awareness of climate issues and the need to reduce greenhouse gas emissions.

Spending on renewable energy has reached historic levels globally, with particular attention given to wind and solar power. As a result, the sector has grown considerably and is now a key part of the global economy.

In 2023, approximately 30% of the world's electricity capacity was supplied by renewable energy sources, with continuous growth fueled by more efficient technologies and reduced production costs. China, the United States, and Germany remain key players in this field, making substantial investments in infrastructure.

The outlook for the sector is promising: transitioning to a low-carbon economy is inevitable, and renewable energy is well-positioned to benefit from this shift. The demand for renewables is expected to continue growing, driven by urbanization and industrialization. Advances in smart grids and the integration of renewable energy into existing systems are also expected to improve efficiency and reliability.

The sector presents numerous opportunities, especially as climate and geopolitical pressures push various economic actors to invest in it. It is increasingly viewed as a strategic sector, marked by rivalry and competition between countries and companies. In 2024, the renewable energy market continues to display strong growth. Global renewable energy capacity reached around 3,600 GW at the beginning of the year, with forecasts predicting it will exceed 5,000 GW by 2030, supported by favorable policies and infrastructure investments.

Several promising subsectors have emerged within the renewable energy sector:

- Solar Energy: Solar panel costs continue to decrease, making solar power more accessible. Photovoltaic installations are expected to grow by 20% annually over the next five years. Innovations in storage technology, such as solar batteries, are improving the reliability and efficiency of solar systems.

-Wind Energy: The wind energy market, especially offshore wind, is expanding rapidly. Countries like China and the United States are investing heavily in new wind farms. Global wind capacity could reach around 1,500 GW by 2026.

-Green Hydrogen: Hydrogen is becoming crucial for decarbonizing industries. Investments in green hydrogen production infrastructure could exceed 100 billion dollars by 2030. Partnerships between tech and energy companies are promoting the development of industrial hydrogen applications.

-Energy Storage Technologies: Demand for energy storage, particularly lithium-ion batteries, is rising rapidly. The market could reach 250 billion dollars by 2028. New technologies, such as long-term storage solutions, are changing the dynamics of the sector.

Opportunities:

Technological advancements in energy storage, such as lithium-ion batteries and long-term storage solutions, offer significant development opportunities. Additionally, government commitments to net-zero emissions are driving the growth of renewable energy. For example, the European Union aims to reduce emissions by 55% by 2030.

According to a World Bank study, the renewable energy market is expected to reach 4.2 trillion dollars by 2030, opening significant investment opportunities. The global energy transition requires strong government commitments, with the Paris Agreement playing a crucial role in shaping investment policies. Countries are re-evaluating their energy mixes to achieve carbon neutrality. International cooperation is essential for technology transfer and financing renewable projects in developing countries and governments continue to provide significant support through subsidies and tax incentives, creating a favorable environment for investments.

The geopolitical and environmental importance of the sector further increases government and corporate interest. The renewable energy sector is now a critical battleground for geopolitical competition and conflicting interests:

US-China Rivalry: Competition is intensifying, especially in critical materials for renewable technologies, such as rare earth elements. The US is seeking to diversify its supply sources to reduce dependence on China.

EU Ambitions: The European Union is working to reposition itself strategically through the renewable energy sector.

The sector presents enormous opportunities in the medium and long term, particularly in the context of the global energy transition.

Risks:

Policy changes could impact tax advantages and subsidies. Furthermore, companies face a complex regulatory environment that varies from one country to another. Price volatility for critical materials, such as lithium and cobalt, poses challenges for supply chains.

Supply disruptions could also result from geopolitical conflicts and competing interests, such as:

-China: The main exporter of critical materials.

-Russia-Ukraine War: The conflict has further complicated supply chains.

Although renewable energy is generally seen as beneficial, some projects face local opposition due to environmental or social concerns. For instance, debates over whether to prioritize nuclear energy over renewables, or concerns about the environmental impact of material sourcing and infrastructure, raise doubts about the sector's long-term future.

Despite these challenges, the renewable energy sector is a transitional one that will become increasingly relevant in the coming years.

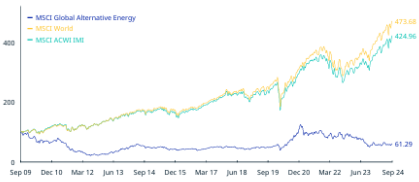
While the renewable energy sector is key to the present and near future within the energy transition context and offers enormous opportunities in the medium and long term, it may not be as stable in the short term.

MSCI Global Alternative Energy Index (USD)

The **MSCI Global Alternative Energy Index** includes developed and emerging market large, mid and small cap companies that derive 50% or more of their revenues from products and services in Alternative energy.

For a complete description of the index methodology, please see Index methodology - MSCI.

CUMULATIVE INDEX PERFORMANCE — GROSS RETURNS (USD)
(SEP 2009 – SEP 2024)



ANNUAL PERFORMANCE (%)

Year	MSCI Global Alternative Energy	MSCI World	MSCI ACWI IMI
2023	-25.23	24.42	22.18
2022	-6.33	-17.73	-18.00
2021	-17.39	22.35	18.71
2020	108.54	16.50	16.81
2019	28.77	28.40	27.04
2018	-16.69	-8.20	-9.61
2017	22.12	23.07	24.58
2016	-6.54	8.15	8.96
2015	-8.34	-0.32	-1.68
2014	6.64	5.50	4.36
2013	80.73	27.37	24.17
2012	-26.19	16.54	17.04
2011	-49.08	-5.02	-7.43
2010	-29.31	12.34	14.87

INDEX PERFORMANCE — GROSS RETURNS (%) (SEP 30, 2024)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED 3 Yr	5 Yr	10 Yr	Since Nov 28, 2008
MSCI Global Alternative Energy	4.11	8.20	5.04	-6.52	-14.09	4.62	1.58	-1.61
MSCI World	1.87	6.46	33.03	19.28	9.61	13.59	10.65	12.13
MSCI ACWI IMI	2.34	6.95	31.55	18.24	7.95	12.39	9.75	11.72

FUNDAMENTALS (SEP 30, 2024)

	Div Yld (%)	P/E	P/E Fwd	P/BV
MSCI Global Alternative Energy	1.25	35.63	18.42	2.17
MSCI World	1.77	22.66	18.92	3.47
MSCI ACWI IMI	1.87	21.94	17.74	2.93

INDEX RISK AND RETURN CHARACTERISTICS (SEP 30, 2024)

	Turnover (%) [1]	ANNUALIZED STD DEV (%) [2] 3 Yr	5 Yr	10 Yr	SHARPE RATIO [2, 3] 3 Yr	5 Yr	10 Yr	Since Nov 28, 2008	MAXIMUM DRAWDOWN (%)	Period YYYY-MM-DD
MSCI Global Alternative Energy	7.05	31.34	31.06	24.84	-0.44	0.22	0.12	na	80.05	2009-06-11—2012-07-25
MSCI World	2.31	17.01	17.76	14.97	0.42	0.68	0.64	0.75	33.99	2020-02-12—2020-03-23
MSCI ACWI IMI	2.23	16.70	17.69	14.97	0.34	0.62	0.58	0.71	34.47	2020-02-12—2020-03-23

[1] Last 12 months [2] Based on monthly gross returns data [3] Based on NY FED Overnight SOFR from Sep 1 2021 & on ICE LIBOR 1M prior that date

* DM countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The MSCI Global Alternative Energy Index was launched on Jan 20, 2009. Data prior to the launch date is back-tested test (i.e. calculations of how the index might have performed over that time period had the index existed). There are frequently material differences between back-tested performance and actual results. Past performance -- whether actual or back-tested -- is no indication or guarantee of future performance.

SEP 30, 2024

Index Factsheet

INDEX CHARACTERISTICS

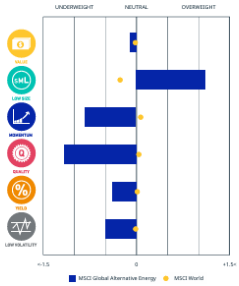
MSCI Global Alternative Energy	
Number of Constituents	74
Mkt Cap (USD Millions)	
Index	173,926.63
Largest	25,365.39
Smallest	141.55
Average	2,350.36
Median	970.76

TOP 10 CONSTITUENTS

	Country	Float Adj Mkt Cap (USD Billions)	Index Wt. (%)	Sector
FIRST SOLAR	US	25.37	14.58	Info Tech
VESTAS WIND SYSTEMS	DK	22.35	12.85	Industrials
ENPHASE ENERGY	US	15.38	8.84	Info Tech
ORSTED	DK	12.61	7.25	Utilities
ADANI GREEN ENERGY	IN	7.19	4.14	Utilities
VERBUND A	AT	5.66	3.26	Utilities
EDP RENOVAVEIS	PT	5.47	3.14	Utilities
NEXTRACKER A	US	5.10	2.93	Industrials
NORTHLAND POWER	CA	4.44	2.55	Utilities
ORMAT TECHNOLOGIES	US	4.18	2.41	Utilities
Total		107.75	61.95	

FACTORS - KEY EXPOSURES THAT DRIVE RISK AND RETURN

MSCI FACTOR BOX



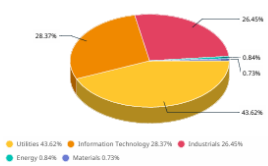
MSCI FaCS

- VALUE — Relatively Inexpensive Stocks
- LOW SIZE — Smaller Companies
- MOMENTUM — Rising Stocks
- QUALITY — Sound Balance Sheet Stocks
- YIELD — Cash Flow Paid Out
- LOW VOLATILITY — Lower Risk Stocks

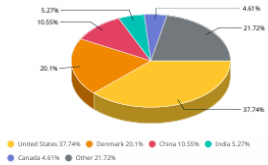
MSCI FaCS provides absolute factor exposures relative to a broad global index - MSCI ACWI IMI.

Neutral factor exposure (FaCS = 0) represents MSCI ACWI IMI.

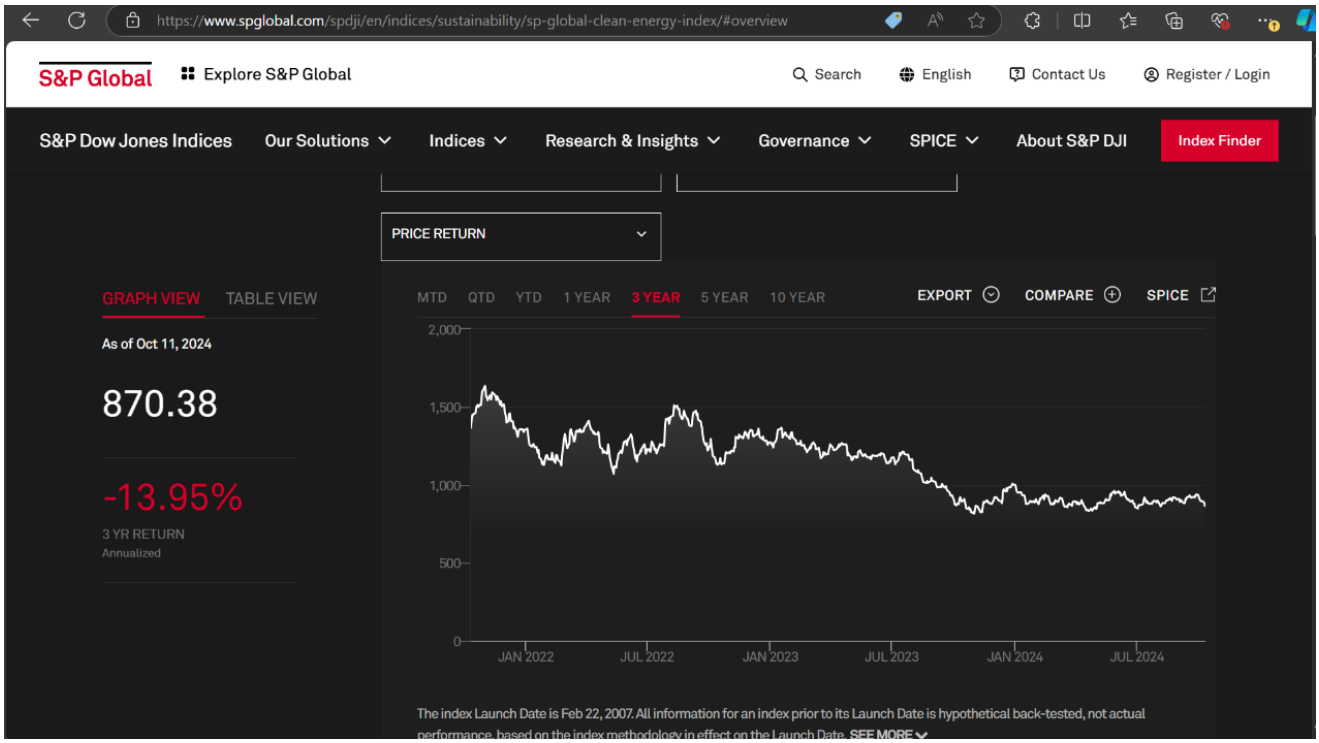
SECTOR WEIGHTS

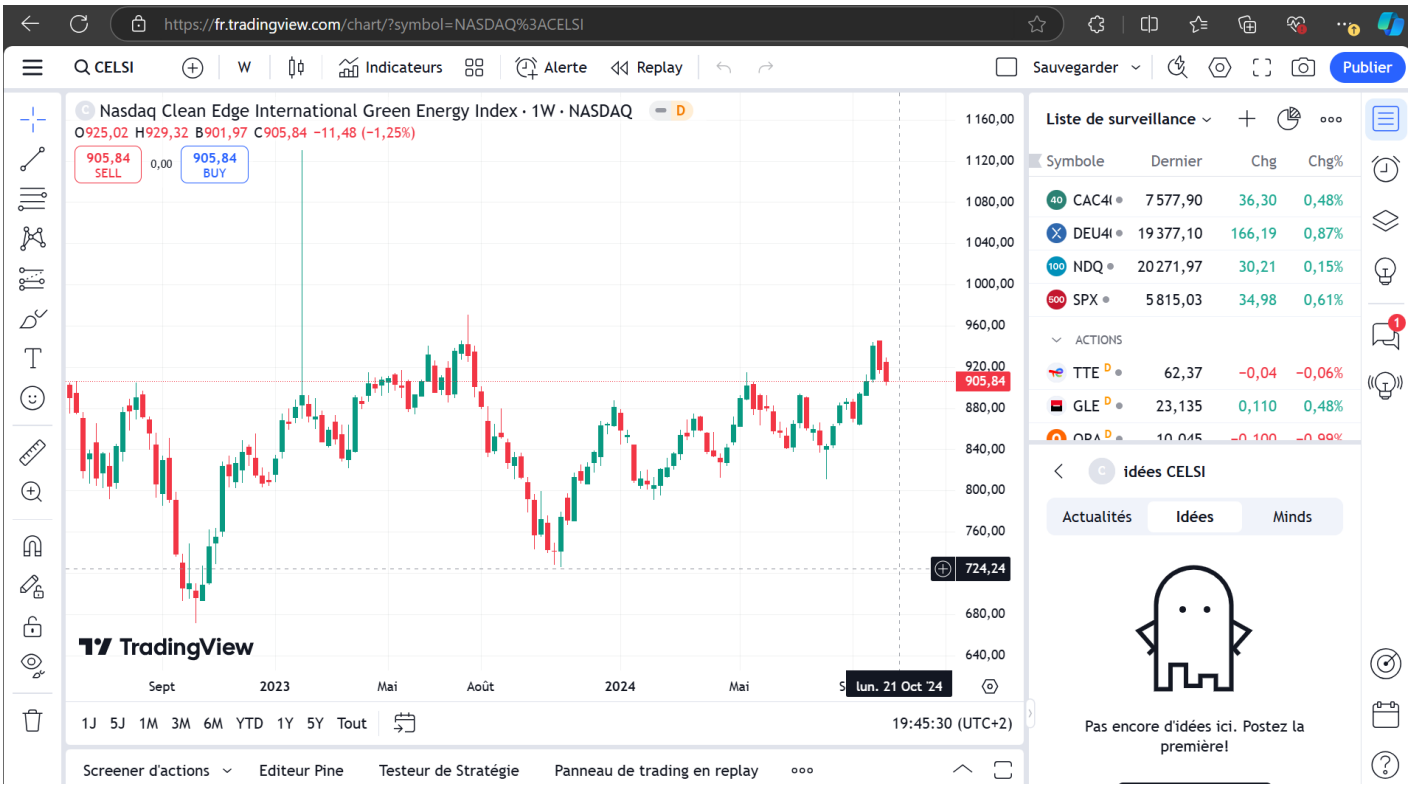


COUNTRY WEIGHTS



MSCI





Explanation of Stock Indices Trends in the Renewable Energy Sector:

The current downward trend observed in stock indices of the renewable energy sector can be attributed to several interrelated factors:

-Market Correction: After a period of rapid growth and high valuations, many renewable energy stocks became overvalued. Investors, concerned about short-term profitability and inflated valuations, have started selling shares, leading to a market correction.

-Supply Chain Issues: Global supply chain disruptions, especially regarding rare earth elements crucial to renewable energy technologies, persist. Geopolitical tensions, particularly between the U.S. and China, complicate material access, increasing production costs and slowing growth.

-Volatility in Energy Markets: Fluctuations in fossil fuel prices, such as lower oil and gas prices, can reduce the urgency to shift to renewable energy. As fossil fuel prices drop, the incentive for companies and investors to focus on renewables diminishes, affecting growth projections.

-Increased Competition: The sector is becoming more competitive, with new companies emerging with innovative technologies. This increased competition pressures established firms to reduce prices, which can erode profit margins.

-Political Uncertainties: Policy changes, particularly around renewable energy subsidies, create uncertainty in the sector. Shifts in environmental regulations or tax incentives affect the profitability of ongoing and future renewable energy projects.

Despite the short-term challenges, forecasts for the renewable energy sector remain optimistic, reinforcing its potential as a long-term investment opportunity:

-Global Renewable Energy Growth: The International Energy Agency (IEA) forecasts a 60% increase in global renewable energy capacity between 2021 and 2026. This growth is driven by rising electricity demand, energy security concerns, and ambitious climate targets.

-Investment Trends: Bloomberg New Energy Finance (BNEF) projects global investments in energy transition technologies to reach $173 trillion by 2050. This investment wave emphasizes the importance of a transition to cleaner energy sources to combat global warming.

-Sectoral Distribution: Solar and wind energy are expected to dominate the market. BNEF predicts solar capacity will surpass 7,000 GW by 2030. The International Renewable Energy Agency (IRENA) estimates that jobs in the renewable energy sector will grow from 12 million in 2020 to over 24 million by 2030, demonstrating the industry's expansion.

-Geopolitical Implications: The energy transition is redefining global geopolitical dynamics, especially in U.S.-China relations. As nations reduce fossil fuel dependence, competition over critical materials (e.g., lithium, cobalt, and rare earth elements) intensifies. The U.S. and Europe aim to strengthen domestic supply chains and reduce reliance on China for these materials.

Potential Future Scenarios for Growth:

Despite the current decline in indices, several scenarios suggest the potential for recovery. Rebound in Growth sine global commitments to carbon neutrality and energy transition are expected to sustain demand for renewable energy, potentially driving a rebound in stock prices. Companies that manage to address supply chain issues and improve technology will benefit the most.

Emerging Technologies and sub-sectors such as energy storage technologies (e.g., batteries) and green hydrogen are gaining traction. These innovations will play a crucial role in stabilizing renewable energy supply and accelerating adoption.

Favorable Policies such as supportive government policies— increased subsidies and stricter emission standards—can accelerate the sector's recovery and future growth.

International Cooperation: Collaboration between major players like the U.S. and China on green technologies could boost the sector significantly. Additionally, foreign investments in renewable energy infrastructure are likely to enhance long-term growth.

Although the renewable energy sector is facing short-term challenges, such as market corrections, supply chain disruptions, and political uncertainties, the long-term outlook remains promising. Companies that adapt to market volatility, resolve supply issues, and innovate in storage and hydrogen technologies are well-positioned for future growth. The global focus on sustainability and the energy transition will ultimately drive a recovery and sustained growth in the renewable energy sector.

Ørsted in its Sectorial and Competitive Context:

The rapid growth of the renewable energy market is driven by technological advancements, supportive measures, and increased awareness of the challenges related to climate change. Notably, solar and wind technologies are experiencing a reduction in costs thanks to improved production processes and economies of scale. The adoption of renewable energy is strongly encouraged by government initiatives such as the EU's Green Deal and the Inflation Reduction Act in the United States, leading to significant investments in energy infrastructure. Ørsted primarily operates in the fields of wind energy (onshore and offshore), solar energy, and bioenergy. Ørsted holds a leading global position in offshore wind, with a significant market share. Their recent projects include wind farms off the coasts of several countries, including the United States and the United Kingdom, reflecting their geographical development strategy.

Ørsted's clients include not only governments and businesses seeking to engage in sustainability initiatives but also individuals interested in renewable energy alternatives. The market is heavily influenced by the growing demand from companies for 100% renewable energy solutions.
Ørsted implements its projects using power purchase agreements (PPAs) and collaborations with local governments. These methods help secure long-term revenues and reduce financial risks.
Despite being headquartered in Denmark, Ørsted operates in Europe, North America, and Asia, demonstrating a solid internationalization strategy aimed at capturing emerging renewable energy markets.

Ørsted is heavily reliant on suppliers of wind turbine components and solar panels, although the company is working to diversify its supply chains, particularly since the sanctions against Russia. Diversification is crucial to minimizing production disruptions. Ørsted stands out for its dedication to sustainability and technological advancement. Its

main competitors—Iberdrola, Vestas, and RWE—are also active in the renewable energy sector. The high entry barriers in this field are due to the significant initial costs and the need for advanced technical expertise.
Ørsted's solid reputation, expertise in developing complex projects, and commitment to sustainable practices provide it with a durable competitive advantage. The company is ideally positioned to benefit from growing trends toward carbon emission reductions and sustainability, further strengthening its market position.

Ørsted primarily focuses on offshore wind, where it is one of the world's leading players, but it faces increasing competition from companies such as Vestas, Siemens Gamesa, and Iberdrola. The offshore wind sector is booming globally, with a 286% increase in global capacity between 2017 and 2023. However, a crucial challenge remains in accelerating this growth to meet climate targets, including reaching 2,000 GW of capacity by 2050 to mitigate global warming.

Although Ørsted is a leader, it faces fierce competition. Siemens Gamesa and Vestas also hold prominent positions in the market. Ørsted's competitive edge lies in its ability to innovate on a large scale, with the construction of some of the world's largest offshore wind farms, such as Hornsea 2 and the upcoming Hornsea 3. Ørsted aims to increase its offshore capacity from 9.8 GW to approximately 20-22 GW by 2030, focusing on hybrid projects that connect multiple markets simultaneously.

The company also distinguishes itself by its commitment to reducing costs in the offshore wind sector, where newly installed capacities in Northwestern Europe are now competitive with fossil and nuclear energy. However, Ørsted must continuously innovate to address rising material prices and meet the growing global demand.

Ørsted is actively exploring promising subsectors such as energy storage, hydrogen production, and carbon capture and storage (CCS). Below are some details of their initiatives in these areas:

Hydrogen: Ørsted has announced significant projects in the production of green hydrogen. For example, the company plans to build hydrogen facilities powered by renewable energy, targeting industries and transportation markets. Their large-scale "H2RES" project in Denmark aims to demonstrate the feasibility of hydrogen produced by electrolysis using offshore wind energy.

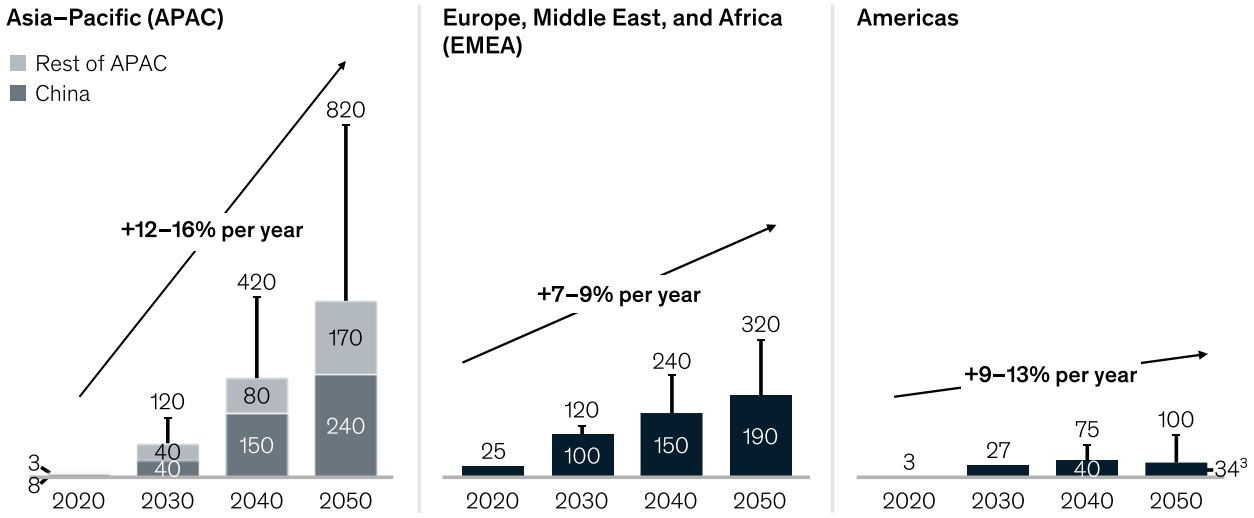
Energy Storage: Ørsted is also exploring energy storage technologies to improve the efficiency of its renewable projects. This includes integrating battery systems to store energy generated from renewable sources, enabling more flexible management of electricity supply.

Carbon Capture and Storage (CCS): The company views CCS as a critical technology for reducing carbon emissions. Ørsted is committed to collaborating with other companies and institutions to develop CCS solutions that can complement its renewable energy projects.

source graphiques : Succeeding in the global offshore wind market | McKinsey

The offshore wind market is expected to grow significantly, with the Asia–Pacific region showing the greatest long-term growth potential.

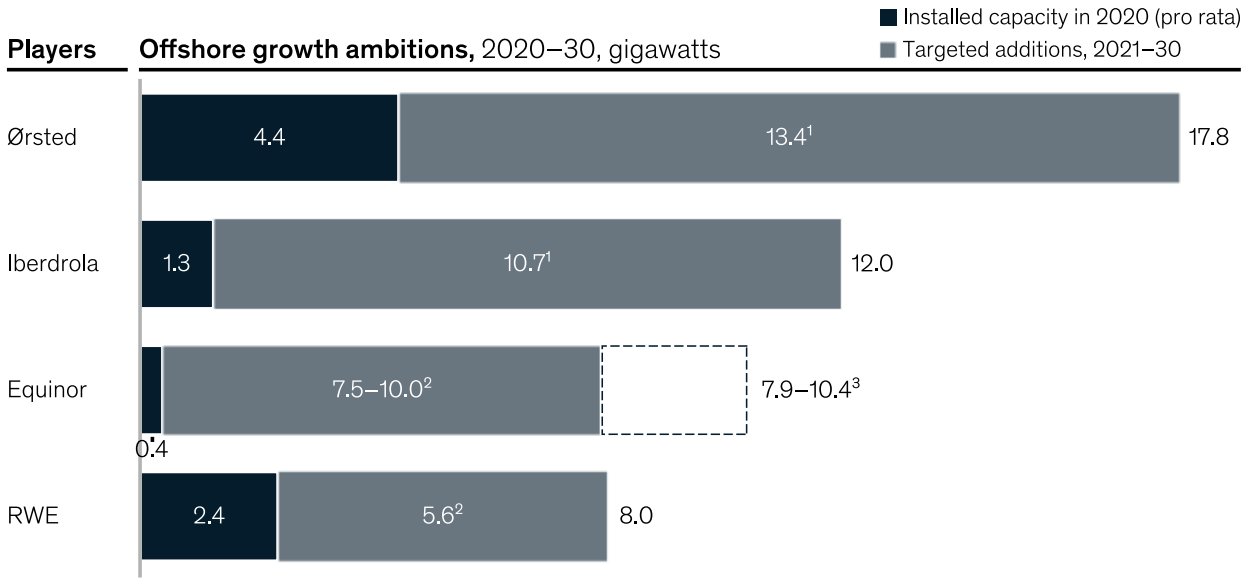
Installed capacities, gigawatts (GW), 2021 base case[1] | 2021 accelerated case[2]



Note: APAC includes OECD Asia–Pacific and non-OECD Asia; EMEA includes OECD Europe, Eurasia, Middle East, and Africa; Americas includes OECD Americas and Latin America.
[1] McKinsey's view on current path of energy transition without major shifts in production and consumption compared to today.
[2] McKinsey's view on an accelerated energy transition, including several conceivable shifts in production and consumption compared to today.
[3] Capacity decrease due to forecasted decommissions.
Source: McKinsey Global Energy Perspective 2021

McKinsey & Company

Offshore wind majors have set growth ambitions for the coming years.



[1] Gross addition target.
[2] Pro rata addition target; gross addition target most likely considerably higher given that many projects are owned with a 50% stake or less.
[3] Addition target published as a range.
Source: Equinor; Iberdrola; Ørsted; RWE company reports

McKinsey & Company

Company Strengths:

Leadership in Renewable Energy: Ørsted holds a leading global position in the offshore wind sector, with significant installation capacity and an extensive project pipeline.

The company offers a broad range of renewable energy solutions, including solar power and biomass, to meet a variety of customer needs.

Ørsted invests in cutting-edge technologies, such as energy storage systems, to enhance the efficiency of its operations.

Its business strategy emphasizes the reduction of carbon emissions, which strengthens its brand image among environmentally conscious consumers and investors.

Ørsted forms strategic partnerships with different players in the field, reinforcing its market position and access to new technologies.

This consolidates Ørsted's position in the renewable energy market, which faces increasing competition.

Ørsted has a clear vision of becoming a leader in the energy transition and is committed to achieving net-zero carbon emissions by 2025. By diversifying its activities toward hydrogen and energy storage, the company aims to create synergies between its renewable energy projects and these emerging technologies. It actively invests and engages in strategic subsectors such as green hydrogen and energy storage while integrating carbon capture solutions to strengthen its position in the renewable energy market.

Ørsted seems to understand the challenges of the sector and positions itself to seize all the opportunities it offers, which is a very good strategy and suggests a promising future for the company. It aims to become a future leader in the sector and equips itself with the necessary means to achieve this ambition.

Weaknesses and Risks:

Ørsted may rely on a small but significant customer base, increasing its vulnerability if contracts are lost. The company faces geopolitical risks, particularly due to sanctions related to the war in Ukraine, which impact fuel supplies.

The expiration of key patents could allow competitors to imitate certain technologies without having to pay additional fees. Ørsted holds several ongoing patents, but some will expire in the coming years, potentially threatening its competitive advantage. For example, several patents were granted between 2017 and 2021, implying they could start expiring between 2027 and 2031, depending on the filing dates and patent type.

Among the essential patents related to offshore wind technology, the importance of innovative foundation designs and monitoring methods stands out. As these patents expire, it will be crucial to monitor their status carefully.

Ørsted faces increasingly strict environmental and safety regulations, which could lead to higher compliance costs. The regulatory framework Ørsted operates under is becoming stricter concerning environmental and safety standards. This includes increasingly rigorous standards for emissions reduction, waste management, and biodiversity preservation, often enforced by national and European laws.

The company may incur high compliance costs, especially concerning the implementation of clean technologies and conducting regular audits. Failure to meet these standards could result in financial penalties and negatively impact the company’s brand image.

Reputational risks can arise from controversies surrounding its business practices or partnerships, potentially affecting investor and customer trust. Reputational risks pose another significant challenge for Ørsted. Collaborations with controversial companies or projects with negative environmental impacts could harm public and investor perception.

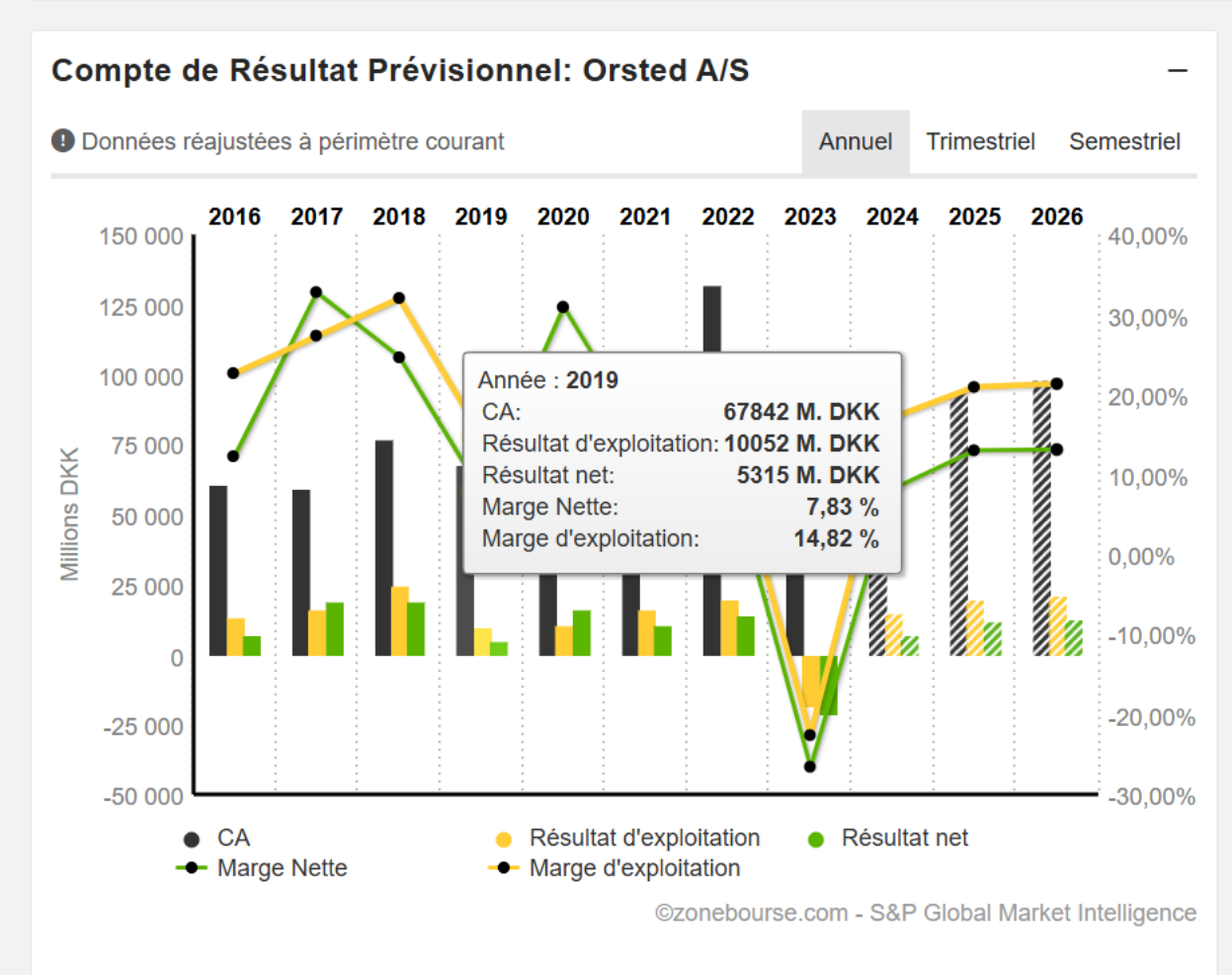
Customer trust could also be affected by a damaged reputation, prompting them to choose alternatives considered more ethical or responsible. Additionally, a negative reputation may impact relationships with investors and limit funding opportunities, which could hinder the company’s future growth.

Analysis of Ørsted's Activity and Operational Performance

Période Fiscale : December		2023	2024	2025	2026
Chiffre d'affaires [1]	:77	79 255	87 683	94 672	99 333
Variation	3 %	*-40,08 %*	*10,63 %*	*7,97 %*	*4,92 %*
EBITDA [1]	57	18 717	27 713	31 612	33 855
Variation	1 %	*-41,61 %*	*48,07 %*	*14,07 %*	*7,09 %*
Résultat d'exploitation (EBIT) [1]	74	-17 853	15 101	19 837	21 128
Variation	1 %	-	-	*31,36 %*	*6,51 %*
Intérêts payés [1]	36	-1 443	-3 649	-3 870	-4 159
Résultat Avt. Impôt (EBT) [1]	09	-19 026	11 255	15 369	15 695
Variation	3 %	-	-	*36,55 %*	*2,12 %*
Résultat net [1]	49	-21 059	7 256	12 290	12 842
Variation	2 %	-	-	*69,39 %*	*4,49 %*
Date de publication	23	07/02/24	-	-	-

[1]DKK en Millions

Données Estimées



Revenue:

- Revenue has fluctuated over the years but is projected to recover from 2023 onwards. In 2023, the revenue is around 77 billion DKK, with expectations of gradual growth up to 99 billion DKK by 2026.

Operating Performance (EBIT & EBITDA):

- Ørsted's 2023 EBIT shows a significant operating loss of -17.8 billion DKK, indicating serious operational challenges this year. However, the company expects to turn this around to a positive EBIT of 15.1 billion DKK in 2024, with continuous improvement up to 21.1 billion DKK by 2026.
- Similarly, EBITDA is expected to recover sharply from 18.7 billion DKK in 2023 to 27.7 billion DKK in 2024.

Net Income:

- The company forecasts a **net loss** of 21.1 billion DKK in 2023, a sharp decline from past profitability. However, Ørsted expects to return to profit with 7.3 billion DKK in 2024, growing further to 12.8 billion DKK in 2026.

Key Observations:

- **Short-term challenges:** The data suggests that 2023 is a difficult year, with operating losses and net losses, likely due to market disruptions, operational inefficiencies, or higher costs.
- **Expected recovery:** Projections from 2024 onwards are optimistic, with steady improvements in revenue, operating profit, and net income.
- The sharp turnaround reflects **strong strategic adjustments** and a possible shift in market conditions expected to favor Ørsted in the near future.

This data hints at **temporary setbacks** for Ørsted in 2023 but suggests a **positive outlook** over the next few years if the company successfully executes its recovery strategies.

Sources : annual-report-2023-cover.jpg (1440×810) (orstedcdn.azureedge.net)

Vestas Annual Report 2023 – A return to profitability

Vestas Reports Strong Performance in 2023, Eyes Robust Growth for 2024 | EuropaWire

Vestas Annual Report 2023 - A return to profitability - MarketScreener

Comparative Analysis:

This part analyses the multi-year performance of three major renewable energy companies: Ørsted, Vestas, and Siemens Gamesa. It highlights their revenue growth, profitability, and strategic positioning within the rapidly evolving renewable energy sector.

Ørsted A/S:

Revenue (in billions of DKK and USD)

- 2023: 77.0 billion DKK (≈ 11.04 billion USD)
- 2022: 88.0 billion DKK (≈ 12.64 billion USD)
- 2021: 77.7 billion DKK (≈ 11.16 billion USD)
- 2020: 75.2 billion DKK (≈ 10.79 billion USD)
- 2019: 67.8 billion DKK (≈ 9.73 billion USD)

Performance Trends:

- Revenue Growth: Ørsted's revenue showed sustained growth from 2019 to 2023 with a 13.6% increase over five years, despite a slight dip between 2022 and 2023.

Profitability:

- In 2023, the company faced a projected EBIT loss of -17.85 billion DKK, due to impairments related to U.S. projects.
- Ørsted's EBITDA remained stable, reaching 18.7 billion DKK in 2023, with forecasts for improved operating performance starting in 2024.

Diversification: Ørsted's expansion into offshore wind and broader renewable projects has reinforced its leadership position, though it faces challenges from rising project costs and geopolitical uncertainties.

Vestas Wind Systems A/S

Revenue (in billions of DKK and USD):

- 2023: 19.2 billion DKK (≈ 2.87 billion USD)
- 2022: 15.8 billion DKK (≈ 2.27 billion USD)
- 2021: 14.3 billion DKK (≈ 2.05 billion USD)
- 2020: 14.1 billion DKK (≈ 2.02 billion USD)
- 2019: 12.5 billion DKK (≈ 1.79 billion USD)

Performance Trends:

- Revenue Growth: Vestas has demonstrated steady growth, with a 53.6% increase in revenue from 2019 to 2023. Its strong 2023 performance reflects a recovery from supply chain disruptions and market volatility.

Profitability:

- Vestas achieved an EBIT margin of 1.5% in 2023, marking a return to profitability after several challenging years.

- The company's revenue for 2024 is expected to be between 24-27 billion DKK, signaling continued positive momentum.

Focus on Wind Energy: Vestas remains focused on onshore and offshore wind. Although it does not diversify beyond wind, its large project pipeline ensures it remains competitive in the renewable sector.

Siemens Gamesa Renewable Energy S.A

Revenue (in billions of EUR and USD):

- 2023: 10.4 billion EUR (≈ 11.3 billion USD)
- 2022: 10.7 billion EUR (≈ 11.6 billion USD)
- 2021: 9.2 billion EUR (≈ 10.0 billion USD)
- 2020: 9.6 billion EUR (≈ 10.4 billion USD)
- 2019: 10.3 billion EUR (≈ 11.2 billion USD)

Performance Trends:

- Revenue Volatility: Siemens Gamesa's revenue fluctuated, with a 9% decline from 2019 to 2023. The company has struggled with delays, cost overruns, and high competition.

Profitability Issues:

- Siemens Gamesa reported a net loss of 0.5 billion EUR in 2023, continuing its multi-year trend of financial difficulties.
- However, the company's order book reached 37.5 billion EUR, indicating future growth potential as it works towards stabilization in 2024.

Strategic Shifts: Siemens Gamesa is focusing on cost optimization and product innovation, particularly in offshore wind, to regain market confidence.

Comparative Analysis (2019-2023)			
Metrics	**Ørsted A/S**	**Vestas Wind Systems A/S**	**Siemens Gamesa Renewable Energy S.A.**
Revenue (2023)	77.0 billion DKK (11.04 B USD)	19.2 billion DKK (2.87 B USD)	10.4 billion EUR (11.3 B USD)

Revenue Growth (2019-2023)	+13.6%	+53.6%	-9.0%
EBIT/Profitability (2023)	-17.85 billion DKK (Loss)	1.5% EBIT Margin	Net Loss of 0.5 billion EUR
Order Book (2023)	N/A	N/A	37.5 billion EUR
Diversification	Offshore wind, renewables	Wind energy only	Wind energy (focus on offshore)

Key Insights:

Revenue Growth and Leadership:
Ørsted remains the **market leader**, with the highest revenue among the three companies. Despite facing an operating loss in 2023, it is well-positioned for recovery. In contrast, Vestas shows strong revenue growth, and Siemens Gamesa struggles with financial volatility.

Profitability: Ørsted faces short-term losses but expects a turnaround starting in 2024 while Vestas regained profitability with a 1.5% EBIT margin in 2023. Siemens Gamesa continues to face profitability challenges despite having a strong order book.

Market Focus and Diversification: Ørsted's diversified portfolio (beyond wind energy) strengthens its leadership position but increases exposure to complex projects.Vestas and Siemens Gamesa are more focused on wind energy, with Siemens Gamesa striving to stabilize its operations and regain market confidence.

Outlook: Ørsted's recovery and strategic focus on offshore wind will play a crucial role in maintaining its market leadership while Vestas, with increasing profitability and solid forecasts for 2024, appears set for steady growth. Siemens Gamesa's large order book signals potential recovery, but ongoing restructuring and cost control efforts are necessary for sustainable performance.

The performance of Ørsted, Vestas, and Siemens Gamesa between 2019-2023 reflects divergent paths. Ørsted leads the sector, leveraging diversification and scale, though it faces near-term challenges. Vestas is regaining profitability, showing strong growth prospects, while Siemens Gamesa struggles to stabilize, hindered by operational challenges and losses.

This multi-year comparison underscores Ørsted's dominance in renewable energy, Vestas' recovery momentum, and Siemens Gamesa's need for strategic realignment to remain competitive in the evolving market.

Investor Engagement:
Ørsted's commitment to regular financial reporting and investor calls to discuss its financial results demonstrates its transparent and close relationship with its investors. The company emphasizes financial aspects and project achievements, highlighting transparent risk management and long-term value creation. By 2030, the company plans to double its installed renewable energy capacity through a DKK 270 billion investment program, showcasing its strategic commitment to the green sector.

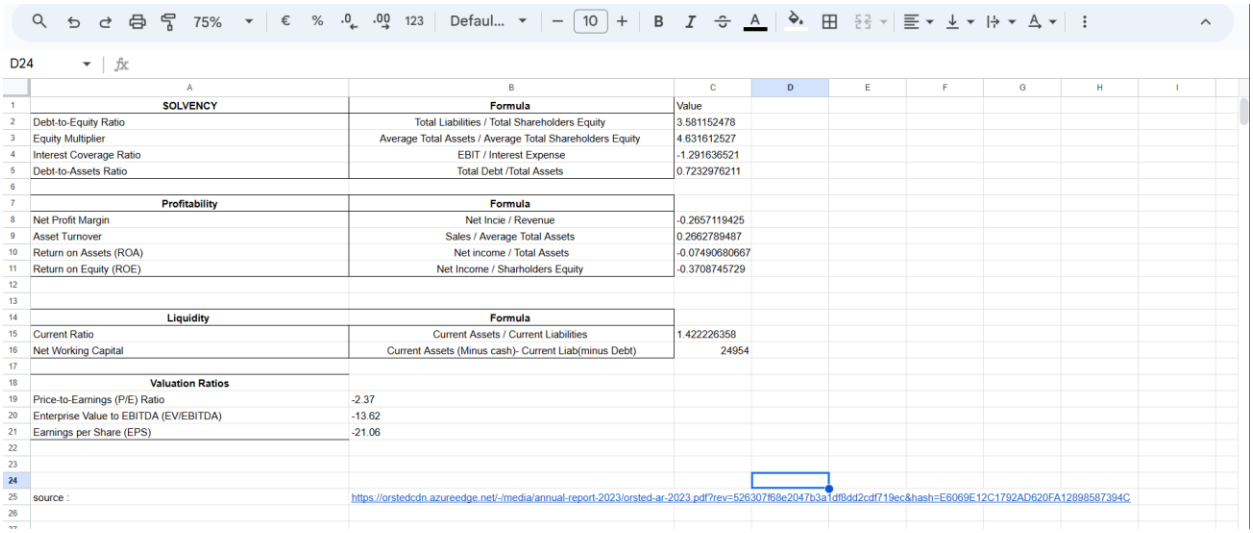
Quality of Management Operations:
Regarding management, Ørsted has recorded a steady increase in its EBITDA, reaching DKK 22.8 billion in 2023, despite a challenging economic environment. Operational efficiency and strategic capital allocation maintain the operating margin, particularly through significant investments in offshore wind and acquisitions aimed at increasing renewable energy capacity (MarketScreener). Additionally, the company is decentralized with three operational regions: Europe, the Americas, and APAC, facilitating more agile local management while keeping headquarters costs reasonable.

Capital Allocation:
The increase in earnings per share plays a crucial role at Ørsted. Despite fluctuations in market conditions, the company has demonstrated prudent resource allocation by investing in projects such as Hornsea 3, the world's largest offshore wind farm. Ørsted has also strengthened its presence in Europe and the United States, continuing to develop solidly across various fields.

Management Involvement:
CEO Mads Nipper is known for his dedication to the energy transition and corporate governance aligned with the company's vision. Rasmus Errboe has also been appointed as Deputy CEO by the company, reinforcing its strategic leadership (Ørsted - Love your home). The executives possess certain "expertise in the field," and their compensation is linked to the company's performance, promoting proactive management focused on long-term goals.

Ørsted highlights balanced governance, emphasizing shareholder value generation and environmental impact.

Analyse technique :



	A	B	C
1	**SOLVENCY**	**Formula**	Value
2	Debt-to-Equity Ratio	Total Liabilities / Total Shareholders Equity	3.581152478
3	Equity Multiplier	Average Total Assets / Average Total Shareholders Equity	4.631612527
4	Interest Coverage Ratio	EBIT / Interest Expense	-1.291636521
5	Debt-to-Assets Ratio	Total Debt /Total Assets	0.7232976211
6			
7	**Profitability**	**Formula**	
8	Net Profit Margin	Net Incie / Revenue	-0.2657119425
9	Asset Turnover	Sales / Average Total Assets	0.2662789487
10	Return on Assets (ROA)	Net income / Total Assets	-0.07490680667
11	Return on Equity (ROE)	Net Income / Sharholders Equity	-0.3708745729
12			
13			
14	**Liquidity**	**Formula**	
15	Current Ratio	Current Assets / Current Liabilities	1.422226358
16	Net Working Capital	Current Assets (Minus cash)- Current Liab(minus Debt)	24954
17			
18	**Valuation Ratios**		
19	Price-to-Earnings (P/E) Ratio	-2.37	
20	Enterprise Value to EBITDA (EV/EBITDA)	-13.62	
21	Earnings per Share (EPS)	-21.06	
22			
23			
24			
25	source :	https://orstedcdn.azureedge.net/-/media/annual-report-2023/orsted-ar-2023.pdf?rev=526307f68e2047b3a1df8dd2cdf719ec&hash=E6069E12C1792AD620FA12898587394C	
26			

Solvency

Debt-to-Equity Ratio (3.58): A ratio greater than 1 indicates that the company uses a high proportion of debt relative to equity. A ratio of 3.58 is very high, which may imply increased risk for investors, especially during periods of economic volatility.

Equity Multiplier (4.63): This shows that one dollar of assets is financed by 4.63 dollars of equity. This ratio confirms the use of a significant amount of debt.

Interest Coverage Ratio (-1.29): A negative ratio means that the company does not generate enough earnings before interest and taxes to cover its interest expenses. This poses a serious risk to the company's financial viability.

Debt-to-Assets Ratio (0.72): This indicates that 72% of the company's assets are financed by debt, which is high. This could lead to liquidity issues if revenues do not cover borrowing costs.

Profitability

Net Profit Margin (-0.27): A negative net profit margin indicates that the company is struggling to generate profits relative to its revenues. This raises concerns about the viability of its operations.

Asset Turnover (0.27): This means that the company generates $0.27 in sales for every dollar of assets. This is relatively low and indicates that the company is not effectively utilizing its assets to generate revenue.

Return on Assets (ROA) (-0.075): A negative ROA means that the company is losing money relative to its assets, which is unfavorable.

Return on Equity (ROE) (-0.37): A negative ROE indicates that shareholders are losing money relative to their investments in the company.

Liquidity

Current Ratio (1.42): A ratio greater than 1 indicates that the company has enough current assets to cover its current liabilities. This suggests reasonable liquidity.

Net Working Capital (24,954): A positive net working capital indicates that the company has sufficient liquidity to fund its daily operations.

Valuation Ratios

Price-to-Earnings (P/E) Ratio (-2.37): A negative P/E ratio means that the company is currently incurring losses. This may deter investors.

Enterprise Value to EBITDA (EV/EBITDA) (-13.62): A negative EV/EBITDA is atypical and indicates that the company is facing serious profitability issues.

Earnings per Share (EPS) (-21.06): A negative EPS reflects losses per share, which is concerning for shareholders.

Thus, the financial ratios indicate that Ørsted faces significant challenges, including a high reliance on debt, unprofitable operations, and risks related to interest coverage. Although the liquidity ratio is reasonable, other indicators suggest that the company needs to find solutions to improve its profitability and reduce its level of indebtedness. It is crucial to monitor the evolution of these ratios and analyze the company's strategies to navigate a potentially challenging economic environment.

Mergers and Acquisitions History:

Ørsted's Mergers and Acquisitions History:

-Acquisition of DONG Energy (2006): Ørsted was previously known as DONG Energy (Dansk Olie og Naturgas). The company was founded in 2006 by merging assets from several companies in the Danish energy sector.

-Acquisition of Boston Energy's Wind Business (2016): Ørsted acquired Boston Energy's wind business, increasing its capacity in the offshore wind sector in the United States. This acquisition strengthened its presence in the North American market.

-Acquisition of Deepwater Wind (2018): In 2018, Ørsted acquired Deepwater Wind, the developer of the first commercial offshore wind farm in the United States, located off the coast of Rhode Island. This was a strategic milestone for Ørsted in expanding its operations in the American market.

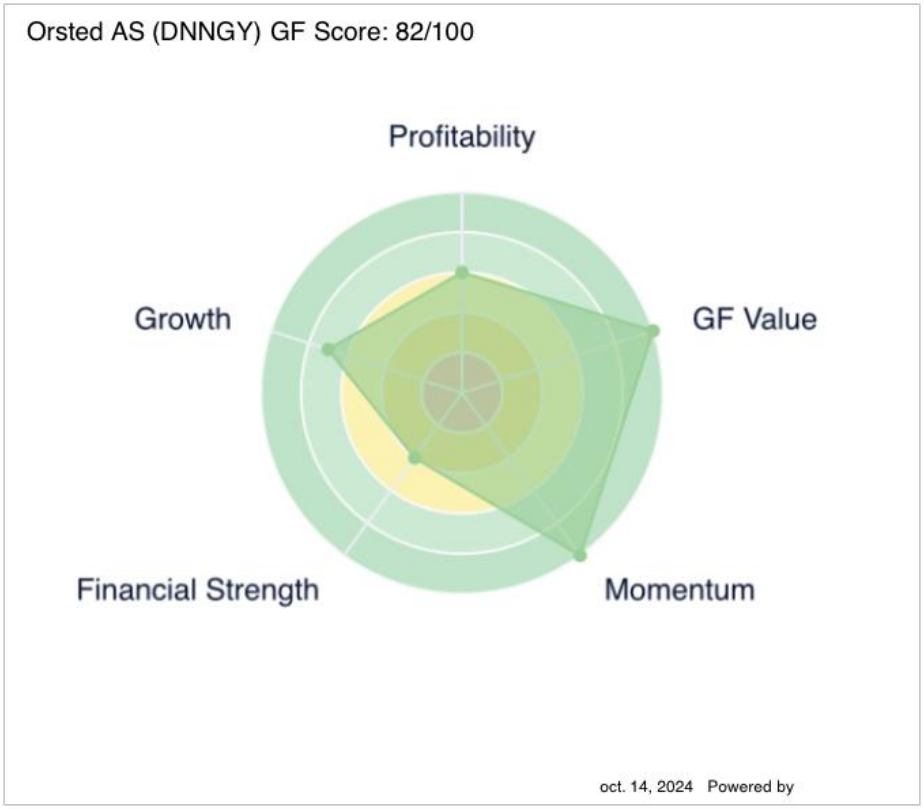
-Acquisition of an Energy Storage Company (2021): Ørsted announced the acquisition of a company specializing in energy storage to diversify its offerings and improve the integration of renewable energies.

-Acquisition of Stakes in Offshore Wind Projects in Asia (2021): Ørsted also acquired stakes in several offshore wind projects in Asia, notably in Vietnam, thereby reinforcing its position in the Asian renewable energy market.

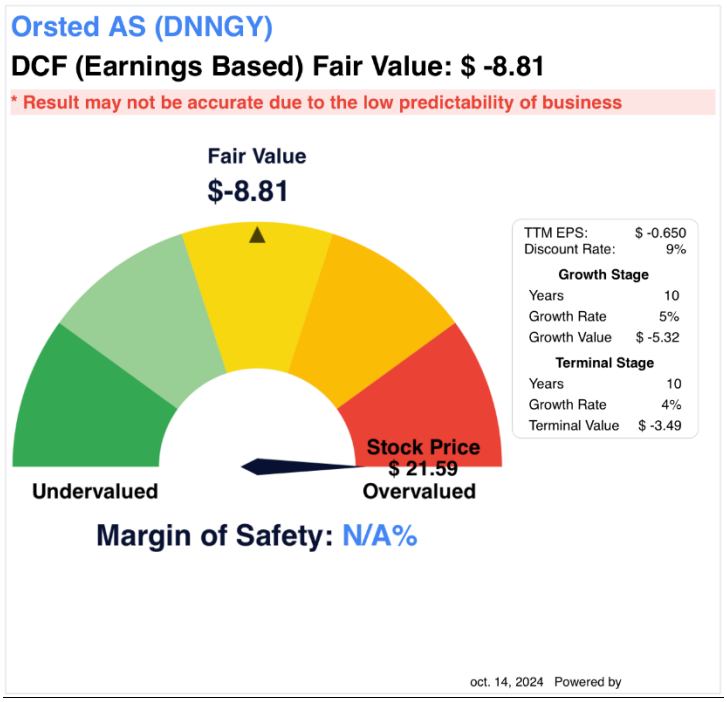
-Strategic Partnerships and Joint Ventures: Ørsted has formed joint ventures with other companies to develop renewable energy projects, particularly in the offshore wind sector, collaborating with partners such as Eversource Energy in the United States.

Ørsted's acquisition history demonstrates its proactive strategy for geographical expansion and diversification in the renewable energy sector. By engaging in mergers and acquisitions, Ørsted has successfully consolidated its position as a global leader in green energy.

Valuation and Rating



Gurufocus rating:



Method Used: Valuing the company: we seek to estimate a fair price for the stock, avoiding entering a bubble and buying a company at outrageous prices, while optimizing entries and average purchase price (AP) through a Watch List. To do this:

- DCF method, calculators can be found online (GuruFocus)
- The estimated fair value from Morningstar available on IBKR
- The estimated price from GuruFocus
- The estimated price from Refinitiv on IBKR
- The estimated price from TipRanks on IBKR

We average these five prices and apply a coefficient of 0.9 to maintain a 10% margin of safety. Once the estimated fair value (EFV) is calculated, we perform a ratio between the current stock price and its EFV: (EFV - Price) / EFV * 100. For example, if we find -14, it means the stock is 14% more expensive than its EFV.

We then calculate the difference between the current P/E and the historical P/E: (PE10A - PE) / PE10A * 100. If we have -28, it means the stock is 28% more expensive than its historical P/E.

Next, we can obtain the valuation score: we add the P/EFV and P/E/P10 and divide by 2. We then add the three ratings (quantitative, fundamental, and valuation).

- ≥ 24: the company is correctly valued and is a very good deal
- ≥ 14: the company is slightly overvalued
- < 14: the company is clearly overvalued

We find an EFV of 70.425 and a ratio between the current stock price and its EFV of 0.0019. The P/E is -8.27 The PE10A is 9.40 Thus the ratio is 0.018. This means the current P/E is only 1.8% lower than its historical P/E. This could indicate that the stock is slightly undervalued compared to its history, but the difference is minimal, suggesting that the stock might be within a reasonable valuation range compared to its past.

Next, we seek to obtain the valuation score: (56.58/70.425 + -8.27/9.4)/2 = -0.03

"

However, according to Gurufocus, Marketscreener, etc., Ørsted is actually overvalued. However, analysts advise buying shares and investing in the company. They consider it to be a very good deal.

<u>Method for Obtaining Fundamental Rating: Fundamental analysis rating out of 20:</u>

- Essential products?
- Products purchased regularly?
- Products sold at low prices?
- Products bought by a large customer base?
- Products resistant to change?
- The company is appreciated by its customers?
- The company is unique?
- Leader in its market?
- Resists competition?
- Has strong pricing power?
- The company is easy to manage?
- Good capital allocation?
- The company focuses on the quality of its products?
- The management of the company is competent?
- "Skin in the game" management? (Directly involved in the company: if they own shares, family business, CEO has bonuses tied to the company's results...)
- The company has a large moat?
- The company operates in a non-cyclical sector?
- Growing market?
- The company is shareholder-oriented?

Between 12 and 20 is a quality rating, 12-8 is average, and >8 is poor.

1. Essential products: 1/1
    - Ørsted focuses on renewable energy, essential in the energy transition.
2. Regularly purchased products: 1/1
    - Energy services, like renewable electricity, are regularly purchased by consumers.
3. Products sold at low prices: 0/1
    - Ørsted's products may have high initial costs, although prices tend to decrease.
4. Products purchased by a large customer base: 1/1

- Ørsted serves a wide range of customers, including governments, businesses, and individuals.

5. Products resistant to change: 1/1
    - Renewable energy is increasingly adopted, although challenges remain.
6. Company appreciated by its customers: 1/1
    - Ørsted is often well-rated for customer satisfaction and service quality.
7. Unique company: 1/1
    - Ørsted stands out for its commitment to sustainability and innovation in the sector.
8. Market leader: 1/1
    - Ørsted is a leader in offshore wind energy.
9. Resists competition: 0/1
    - Competition in the renewable energy sector is growing, which poses challenges.
10. Has strong pricing power: 1/1
    - With the growing demand for renewable energy, Ørsted has reasonable pricing capacity.
11. Easy to manage company: 1/1
    - Ørsted's management structure is solid, although it faces regulatory challenges.
12. Good capital allocation: 1/1
    - Ørsted invests wisely in renewable energy projects.
13. Company focuses on product quality: 1/1
    - The quality and efficiency of Ørsted's products are recognized in the industry.
14. Management is competent: 1/1
    - Ørsted's management has a good reputation for competence and experience.
15. Management is "skin in the game": 1/1
    - Ørsted's leaders often hold shares in the company, demonstrating their commitment.
16. Company has a large moat: 1/1
    - Ørsted has competitive advantages due to its innovations and reputation.
17. Company operates in a non-cyclical sector: 1/1
    - The renewable energy sector is less cyclical compared to others.

18. Growing market: 1/1
    - The renewable energy market is booming, with increasing demand.
19. Shareholder-oriented company: 1/1
    - Ørsted is committed to creating value for its shareholders and has a good dividend history.

Total: 17/19 = 17.80

Quantitative Evaluation of Ørsted

Criterion	Evaluation	Justification
1. Revenue Growth	1/1	Ørsted has experienced strong revenue growth, particularly due to the expansion of its renewable energy projects. In 2023, revenues increased by 30% compared to the previous year.
2. Gross Profit Margin	1/1	Ørsted's gross margin is competitive in the industry, reaching around 50%, which is favorable compared to the S&P 500 average.
3. Operating Margin	1/1	Ørsted's operating margin is also robust, standing at around 25-30%, positioning it well against other market players.
4. Return on Equity (ROE)	1/1	Ørsted reported a ROE of 12-15%, which is competitive compared to the S&P 500 average, often around 10-12%.
5. Return on Assets (ROA)	0.5/1	Ørsted's ROA is approximately 5-7%, slightly lower than some of its competitors in the renewable energy sector.
6. Debt Ratio	1/1	Ørsted maintains a moderate debt ratio, around 1.5, which is acceptable and manageable within the industry.

Criterion	Evaluation	Justification
7. Earnings Per Share (EPS) Growth	1/1	Ørsted's EPS growth is strong, exceeding 15% per year in recent years.
8. Free Cash Flow	0.5/1	Ørsted generates solid free cash flow, but high investments in new projects may reduce liquidity.
9. Enterprise Value (EV) / EBITDA	1/1	Ørsted shows a competitive EV/EBITDA ratio, indicating an attractive valuation relative to its earnings.
10. P/E Ratio	0.5/1	Ørsted's P/E ratio is around 20-25, which is higher than the S&P 500 average.
11. Dividend Growth	1/1	Ørsted has a good track record of dividend growth, with an annual increase of around 10-15%.
12. Dividend Yield	0.5/1	The dividend yield is about 2-3%, which is competitive but lower than other established companies.
13. Stock Volatility	1/1	Ørsted has shown relatively low volatility, which is favorable for long-term investors.
14. Beta	1/1	Ørsted's beta coefficient is below 1, indicating lower sensitivity to market fluctuations.
15. Liquidity Ratios	1/1	Ørsted's liquidity ratios are healthy, with a current ratio above 1.5.
16. Valuation Relative to Growth (PEG Ratio)	1/1	Ørsted's PEG ratio is competitive, around 1.5, indicating the company is reasonably valued relative to its growth.
17. Market Positioning	1/1	Ørsted is a leader in offshore wind energy, with a significant market share.
18. Innovation Rate (Number of Patents)	1/1	Ørsted invests heavily in innovation, holding several patents in the renewable energy sector.
19. Market Growth	1/1	The renewable energy market is rapidly growing, and Ørsted is well-positioned to benefit from it.
20. Commitment to Sustainability	1/1	Ørsted is recognized for its commitment to sustainability and the environment, enhancing its reputation and attractiveness.

Total: 19/20

By adding the 3 scores, we got: 36.77. The rating is strictly above 24 and is therefore a very good deal!

Investment Portfolio Construction

Investment Strategy and Financial Goal:

Giverny Capital has demonstrated solid performance over recent years, especially when compared to major indices like the S&P 500. Over the past 28 years, their strategy yielded an impressive annualized return of 15.1%, far exceeding the S&P 500's 10.8% annualized return over the same period. In total returns, Giverny Capital achieved a remarkable 5438.1%, compared to the 1745.6% return of the S&P 500.

Their approach focuses on concentrated investments in high-quality businesses that have allowed them to consistently outperform. For example, in 2021, their portfolio delivered a 27% return, closely aligned with the S&P 500's growth that year. They achieve strong returns by selecting companies with robust competitive advantages, maintaining profitability even during volatile periods.

Giverny Capital's Investment Philosophy and Portfolio Management

In their annual reports, Giverny outlines the core principles guiding their strategy:

Equities remain the best long-term asset class.

Predicting the optimal entry and exit points is futile—thus, their philosophy encourages long-term investing.

The performance of a stock, over time, reflects the intrinsic value growth of the underlying company, which is often tied to shareholder returns.

Their focus is on companies with:

-High profitability

-Strong long-term growth potential

-Transparent and competent leadership is dedicated to shareholders' welfare.

Risky companies (unprofitable, heavily indebted, cyclical) are avoided. Leadership driven by ego, rather than genuine stewardship, is also a red flag.

They emphasize intrinsic value assessments and the need for patience, especially when the market undervalues these assets. Their belief, echoing Benjamin Graham, is that the market's short-term irrationality creates opportunities to acquire quality companies at discounted prices.

Despite short-term market fluctuations, Giverny Capital views volatility as a positive opportunity to buy undervalued assets. They stress that linear returns are unrealistic. The key to success is to hold undervalued companies for several years until their true value is reflected.

Personal Reflection and Strategy:

Lacking deep knowledge and experience in market analysis, I turned to Giverny Capital's reports to understand their investment philosophy. Several key insights stood out:

- Humility is essential, predicting short-term price movements is impossible. Thus, long-term investment is crucial.
- It's important to invest in promising companies that I understand, trust, and have carefully evaluated.

This approach aligns with my investment in Ørsted. Although the stock is currently overvalued, Ørsted is clearly positioned as a leader in its sector, with the resources to achieve its ambitions. Ørsted meets many of the criteria that make it an attractive investment, even in the face of short-term overvaluation.

A successful investment requires patience, a principle that Giverny Capital consistently emphasizes. I believe Ørsted's intrinsic value will increase over the long term, justifying the investment.

Since I am still unfamiliar with the technical analysis of stock charts and short-term trading strategies, my investment strategy avoids relying on short-term stock prices. Instead, my focus is on long-term growth potential and the intrinsic strength of the companies I invest in.

Investment Portfolio and Risk Management:

The two are treated together as they are complementary: assessing risks and evaluating investments along with different investment strategies helps mitigate risks.

Capital Allocation:

- ***Ørsted shares: 30%.***
- ***Bonds: 20%. 10% in 2-year U.S. Treasury bonds and 10% in 10-year bonds.***
- ***Renewable energy ETFs: 20%. 10% in TAN and 10% in ICLN.***
- ***Stocks from other sectors (rare earths): 15% in futures contracts on Chinese rare earths with stop-loss orders and 15% in LYC.AX.***

Investment Portfolio Overview

<u>Ørsted: 30%</u>

Ørsted is currently navigating a challenging phase that could impact its stock price in the short to medium term. The company has downgraded its renewable energy capacity targets to 35-38 GW by 2030, down from an earlier, more ambitious goal. This adjustment is attributed to financial and operational challenges, including rising costs for major projects and increasing interest rates.

Recent Developments:

- Partial Sale of U.S. Assets: Ørsted has sold a portion of four onshore wind farms in the U.S. to Stonepeak for approximately $300 million. This

move is part of a capital recycling strategy, enabling Ørsted to finance future projects while still managing these assets.

- Offshore Wind Project Challenges: Several of Ørsted's projects in Europe and the U.S. are facing unexpected costs and profitability issues due to rising material costs and financing difficulties. The company has had to renegotiate some power purchase agreements (PPAs) amidst more volatile market conditions.
- Future Investments in Green Hydrogen: Ørsted is looking to expand its presence in green hydrogen and sustainable fuels, which could provide new long-term growth opportunities, though success will depend on subsidies and rising demand for these alternative energy sources.

These developments indicate that while Ørsted's business model faces pressure, the company is well-positioned in future-oriented sectors like offshore wind and hydrogen. However, short-term uncertainties and restructuring costs may continue to weigh on investor confidence, potentially keeping its stock under pressure. From my perspective, Ørsted represents a relatively safe long-term bet given the substantial growth potential in its sector and related subsectors.

Rare Earths: 30% (Investment in Another Sector)

Investments in Ørsted and other renewable energy companies are grounded in strong growth prospects driven by the global energy transition. However, a significant risk in this sector is the potential disruption of the rare earth supply chain, which is crucial for producing wind turbines, electric vehicle batteries, and tech equipment. With China controlling about 80% of global rare earth production, any geopolitical tensions or export limitations could severely impact the market. Investing in futures contracts allows for hedging against these uncertainties and ensures portfolio coherence while providing an opportunity for gains if rare earth prices rise sharply. By managing risk and making informed allocations, this approach not only safeguards the portfolio but also leverages market trends.

Overview of Opportunity: This investment strategy emphasizes the critical role of rare earth elements (REEs) in the global energy transition, aligning with the broader objective of investing in renewable energy. By allocating funds toward both futures contracts and Lynas Rare Earths (LYC), the strategy tackles the urgent need for reliable supplies of critical minerals essential for clean technologies. This diversification enhances portfolio stability and positions it to benefit from increasing REE demand in an evolving energy landscape.

Geopolitical Context: China's dominance in the REE sector poses risks, as seen in 2010 when it restricted rare earth exports to Japan, showcasing the potential for REEs to be used as geopolitical leverage. To mitigate these risks, nations and companies are exploring alternative sources and investing in circular economy solutions like recycling REEs from industrial waste. This shift towards domestic production is recognized as vital for long-term independence from Chinese REEs, requiring substantial investment and collaboration between public and private sectors.

Given the accelerating push towards electrification and green technologies, the demand for rare earths is expected to rise significantly, making them not only a financial opportunity but also a strategic asset in global geopolitics.

Investment Strategy: Futures Contracts on Rare Earth Elements

- Objective: Hedge against price volatility and ensure access to rare earth materials.
- Current Pricing: Contracts for neodymium oxide (Nd_2O_3) futures are trading at approximately $40,000 per metric ton for contracts expiring in 2028.
- Covering Strategy: Utilize put options on contracts to limit downside risk. For example, a put option allows for selling at $38,000 per metric ton, securing profit margins even if market prices decline.
- Growth Scenarios:
  - Optimistic: A 25% increase in clean technology demand could drive prices to $50,000 per metric ton over four years.
  - Pessimistic: A 10% price drop could lead to a market price of $36,000 per metric ton, with structured contracts and put options mitigating losses.

Futures Contract Ticket - Rare Earth (NdPr) - 5 Years with Hedging

- Underlying Asset: Neodymium/Praseodymium (NdPr) Oxide Futures
- Current Spot Price: $40,000 USD/metric ton
- Contract Volume: 10 metric tons
- Expiration Date: December 2028

Hedging Strategy. Put Options:

- Strike Price: $38,000 USD/metric ton
- Option Premium: 4% of futures contract value (total premium cost = $16,000 USD)
- Option Expiration: Same as futures expiration (December 2028)

Growth Scenarios and Financial Calculations:

Optimistic Scenario (25% price increase):

- Projected Market Price: $50,000 USD/metric ton

- Total Futures Contract Value: 10 * $50,000 = $500,000 USD
- Net Profit after option premium deduction:
  - Total Value = $500,000 USD
  - Initial Value = $400,000 USD
  - Option Premium = $16,000 USD
  - Net Profit = $84,000 USD

Pessimistic Scenario (10% price decrease):

- Projected Market Price: $36,000 USD/metric ton
- Total Value without Hedging: 10 * $36,000 = $360,000 USD
- Hedge with Put Option at $38,000:
  - Value after exercising options: 10 * $38,000 = $380,000 USD
  - Initial Value = $400,000 USD
  - Option Premium = $16,000 USD
  - Net Loss = -$36,000 USD

Summary of Ticket:

- Futures Contract: 10 metric tons
- Current Price: $40,000 USD/metric ton
- Expiration: December 2028
- Hedging via Put Options: Strike at $38,000 USD

Potential Outcomes:

- Optimistic: Net profit of $84,000 USD
- Pessimistic: Net loss of $36,000 USD

Overview of Lynas Rare Earths Ltd (LYC.AX)

General Presentation: Lynas Rare Earths is a leading player in the rare earth elements (REE) market, particularly known for its production of neodymium and praseodymium (NdPr), which are essential for industries like electric vehicles (EVs) and renewable energy technologies. The company is well-positioned to capitalize on the increasing demand for rare earths as industries transition towards greener technologies. In the first half of fiscal year 2024, Lynas reported revenues of AUD 234.8 million, down from AUD 370 million during the same period last year. Despite this decline in revenue, NdPr production doubled to approximately 9,000 tonnes per annum. Lynas has maintained a low-cost production profile, allowing it to remain profitable even amidst challenging market conditions characterized by falling prices.

Analyst opinions on Lynas' valuation are mixed. Currently, the stock trades at about 0.8 times its net asset value (NAV). Price targets from brokers range between AUD 6.70 and AUD 7.40, suggesting a potential upside of approximately 26% from its current price of AUD 5.68. Goldman Sachs, for example, rates Lynas as a "BUY," noting its undervaluation relative to long-term NdPr price forecasts.

Lynas is actively expanding its operations, including a significant refinery project in Texas, which has received the necessary environmental approvals and is set to commence construction by the end of 2024. As demand for NdPr surges—especially due to the EV market—Lynas is positioned for growth. Analysts expect a market rebalancing for rare earths in the medium term, particularly with an industrial activity rebound in China.

Despite a solid business model, Lynas faces risks associated with the volatility of rare earth prices, which have recently stabilized around AUD 52 to AUD 53 per kilogram. A prolonged period of low prices could adversely affect cash flows, as evidenced by a recent cash outflow of AUD 316 million. Additionally, geopolitical tensions and dependency on certain markets for demand could pose challenges for Lynas.

Investment Objectives and Strategies:

-Objective: Gain exposure to a key player in the REE supply chain and leverage its growth potential.

-Current Stock Price: Lynas shares are priced at AUD 6.80, with projections indicating a potential appreciation of 30% to AUD 8.80 over the next five years, driven by increasing global demand and strategic partnerships with governments.

-Risk Management: Implement a stop-loss order at -10% to exit quickly if the stock drops to AUD 6.12. Additionally, purchasing put options at AUD 6.00 would provide further protection against significant declines.

Combined Scenarios and Estimated Growth and Revenues

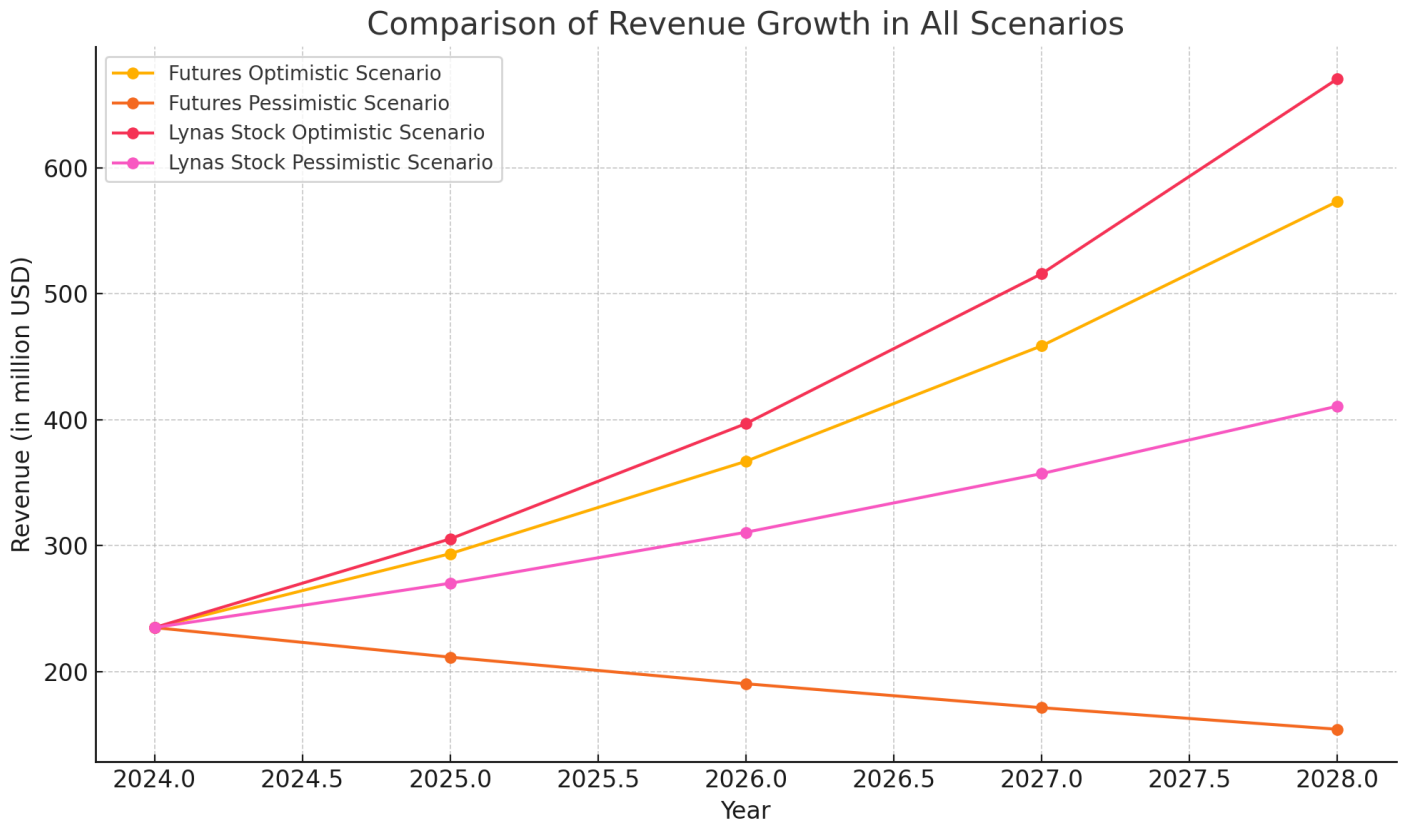
Futures Contracts:

- Optimistic Scenario: Prices rise by 25% to AUD 50,000 per ton.

- Pessimistic Scenario: Prices drop by 10% to AUD 36,000 per ton, but losses are mitigated through hedging options.

Lynas Stock:

- Optimistic Scenario: Target price of AUD 8.80, indicating a 30% growth.
- Pessimistic Scenario: Target price stabilizes at AUD 6.12, still representing a 15% growth.



Bonds (20%)

-Reduce potential losses associated with higher-risk investments (renewable energy, rare earths).

-Generate stable income to offset possible declines in cyclical sectors.

-Benefit from a stabilizing effect, especially during geopolitical instability or rising interest rates.

Bonds act as stabilizers in a portfolio by providing fixed returns. While bond yields are generally lower than equities, they help shield a portfolio from market volatility. Government bond yields typically range from **2% to 4% annually**, depending on market conditions.

- **Should I choose AAA or BBB bonds?** This depends on the risk associated with my other investments. If 60% of my portfolio (in rare earths and renewable energy) is considered risky, it's better to opt for low-risk bonds. In this case, **AAA bonds** are the safer choice to mitigate risks.

Investing in **U.S. Treasury bonds** is a strategy to secure my capital while generating stable income. In today's climate of economic uncertainty, these bonds offer an attractive investment opportunity.

2-Year Bonds:

-Attractive Yield: With a return of about 5.0%, these short-term bonds are ideal for investors seeking to maximize returns while minimizing volatility risk.

-Lower Interest Rate Risk: Due to their short duration, these bonds are less sensitive to interest rate fluctuations, protecting against capital losses in a rising rate environment.

10-Year Bonds:

-Balanced Investment: Offering yields between 4.5% and 4.7%, these mid-term bonds provide a good compromise between return and security. They help hedge against inflation and are generally seen as a safe haven during economic uncertainty.

-Potential for Capital Gains: If interest rates decrease, the value of these bonds will rise, offering additional gains.

By allocating 20% of the portfolio to government bonds, it will create a solid balance between security and returns. These investments provide regular income while protecting the capital from market volatility. U.S. Treasury bonds are an essential component for any investor seeking portfolio diversification and a defensive position in an uncertain economic environment.

ETFs (20%):

Since 30% of my portfolio is already invested in Ørsted, it's wise to choose ETFs that diversify the risks in case Ørsted underperforms. I need ETFs covering a broader range of companies in renewable energy or uncorrelated sectors to minimize the impact of poor performance from a single company.

- **Overview**: ETFs allow for quick portfolio diversification by investing in a basket of stocks or bonds. Select ETFs focused on renewable energy or clean technologies to align your portfolio with sustainable goals.

- **Risk and Growth**: ETFs offer liquidity and diversification, reducing overall risk. Expect returns ranging from **6-10% annually** for ETFs targeting renewable energy.

Invesco Solar ETF (TAN)

The Invesco Solar ETF (TAN) provides targeted exposure to solar sector companies, including those involved in **solar panel manufacturing, installation, and infrastructure development**. With the global transition toward sustainable energy, TAN is well-positioned for investors aiming to capitalize on the growth of the solar market.

- **Investment Thesis**:
  The solar energy market is expanding rapidly, driven by favorable government policies and increasing demand for clean energy. Estimates suggest the global solar market could grow by **20% per year** over the next few years. Additionally, with key players like **First Solar** and **Enphase Energy** in its portfolio, TAN is poised to benefit from this trend.
- **Risk and Return**:
  TAN offers high growth potential but is also exposed to market volatility and dependency on government subsidies. Its **5-year annualized return of 25%** makes it an attractive option for growth-focused investors.

Investing in TAN allows investors to diversify their portfolio while aligning with the growing trend of renewable energy, reducing risks from concentrated investments like Ørsted.

iShares Global Clean Energy ETF (ICLN)

The iShares Global Clean Energy ETF invests in a broad range of companies involved in **wind, solar, and hydro energy production**. It is ideal for those looking to diversify their renewable energy investments while gaining exposure to industry leaders. This ETF is particularly relevant as it mitigates the risk that **Ørsted may fail to outperform in the market**.

- **Investment Thesis**:
  As the world shifts toward sustainable energy sources, ICLN captures the growth potential of companies driving this transition. The fund includes major players like **NextEra Energy** and **Vestas Wind Systems**, at the forefront of innovation in clean energy. Investments in green infrastructure are projected to reach **$2 trillion by 2030**, further boosting growth prospects.
- **Risk and Return**:
  ICLN presents a moderate risk profile. While it may experience volatility, renewable energy growth forecasts remain optimistic. Its **5-year return of 18%** reflects the sector's resilience and ability to weather market fluctuations through diversification across multiple renewable energy sources.

Investing in ICLN gives investors broad exposure to clean energy, along with the stability of a diversified fund, which is especially useful when balancing concentrated positions such as Ørsted.

Diversification Strategy:

Combining PBW and ICLN offers broad coverage of the renewable energy sector, reducing company-specific risks. PBW focuses on small and mid-sized companies, providing higher growth opportunities, while ICLN ensures stability through well-established firms. Both ETFs complement each other by also offering geographic diversification: ICLN provides international exposure, while PBW focuses on innovative U.S. companies, further mitigating risks across your portfolio.

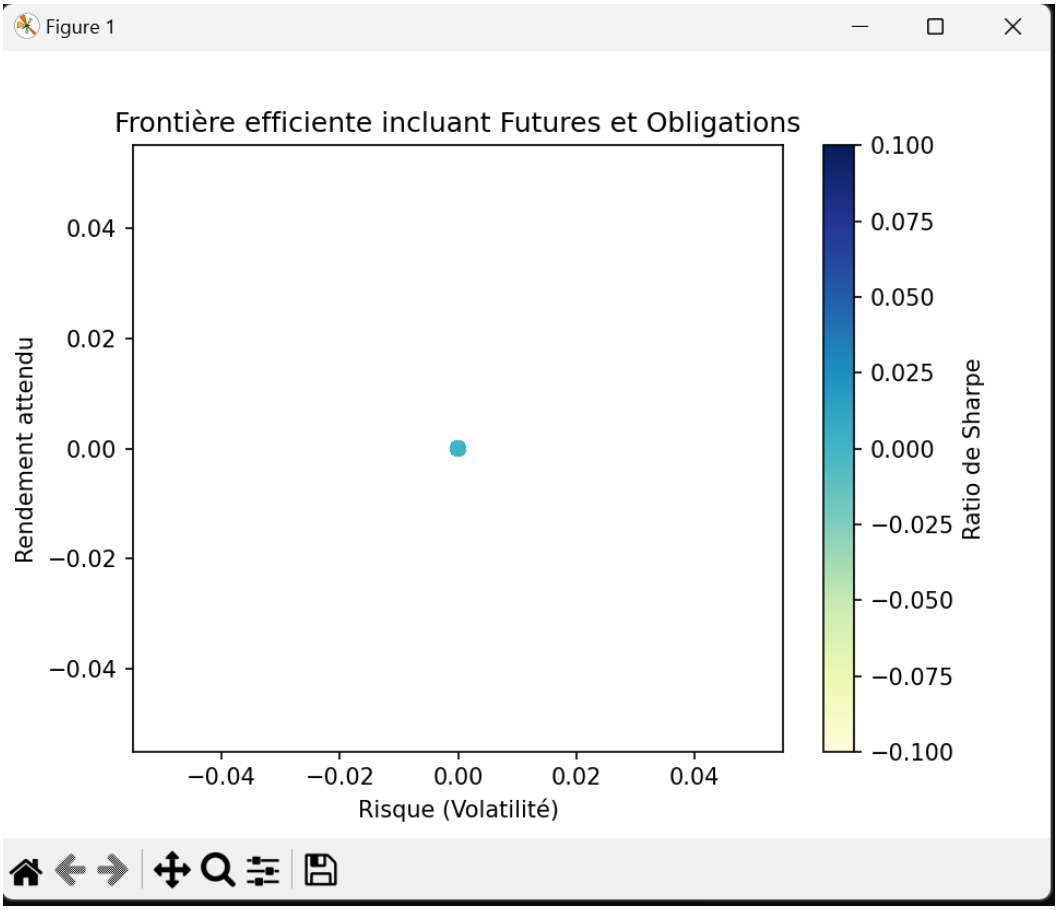
A practical tool for determining the ideal allocation is Markowitz's Portfolio Theory: It helps identify the **efficient frontier**, m**easures risk and return** and o**ptimizes allocation** based on the analysis results.

Here is the code:

```
import numpy as np

import pandas as pd

import matplotlib.pyplot as plt

import yfinance as yf


# Liste des actifs à inclure

tickers = ['ORSTED.CO', 'LYC.AX', 'TAN', 'ICLN']


# Téléchargement des prix historiques ajustés

data = yf.download(tickers, start='2020-01-01')['Adj Close']


# Calcul des rendements quotidiens

returns = data.pct_change(fill_method=None).dropna()  # No FutureWarning


# Futures NdPr avec scénarios

future_NdPr_optimistic = (500000 - 400000 - 16000) / 400000  # 25% d'augmentation

future_NdPr_pessimistic = (380000 - 400000 - 16000) / 400000  # 10% de diminution et couverture
```

```
# Obligations du Trésor américain (rendements hypothétiques pour simplification)
bond_2yr = 0.03  # 3% annuel
bond_10yr = 0.035  # 3.5% annuel

# Moyennes et variances des rendements des actifs
mean_returns = returns.mean()
cov_matrix = returns.cov()

# Ajout des futures et des obligations à l'analyse
mean_returns['NdPr Futures'] = (future_NdPr_optimistic + future_NdPr_pessimistic) / 2
mean_returns['US 2YR Treasury'] = bond_2yr
mean_returns['US 10YR Treasury'] = bond_10yr

# Ajouter la matrice de covariance pour ces nouveaux actifs
new_assets = ['NdPr Futures', 'US 2YR Treasury', 'US 10YR Treasury']
new_cov_matrix = pd.DataFrame(
    index=list(cov_matrix.index) + new_assets,
    columns=list(cov_matrix.columns) + new_assets
)

# Remplir la matrice de covariance existante
new_cov_matrix.iloc[:-len(new_assets), :-len(new_assets)] = cov_matrix.values

# Remplir les nouvelles entrées avec des hypothèses de faible corrélation
for asset in new_assets:
    new_cov_matrix.loc[asset, asset] = 0.01  # Faible variance pour obligations et futures
    for existing_asset in cov_matrix.index:
        new_cov_matrix.loc[asset, existing_asset] = 0.02  # Faible corrélation
        new_cov_matrix.loc[existing_asset, asset] = 0.02  # Même pour l'autre sens
```

```
# Mettre à jour la matrice de covariance
cov_matrix = new_cov_matrix

# Simulation Monte Carlo : 10 000 portefeuilles aléatoires
num_portfolios = 10000
results = np.zeros((3, num_portfolios))

for i in range(num_portfolios):
    weights = np.random.random(len(mean_returns))
    weights /= np.sum(weights)  # Normalize weights

    portfolio_return = np.sum(weights * mean_returns) * 252  # Annualisation
    portfolio_stddev = np.sqrt(np.dot(weights.T, np.dot(cov_matrix.values, weights))) *
np.sqrt(252)

    results[0, i] = portfolio_return
    results[1, i] = portfolio_stddev
    results[2, i] = results[0, i] / results[1, i]  # Ratio de Sharpe

# Visualisation de la frontière efficiente
plt.figure(figsize=(10, 6))
plt.scatter(results[1, :], results[0, :], c=results[2, :], cmap='YlGnBu')
plt.title('Frontière efficiente incluant Futures et Obligations')
plt.xlabel('Risque (Volatilité)')
plt.ylabel('Rendement attendu')
plt.colorbar(label='Ratio de Sharpe')
plt.show()
```



This code implements modern portfolio theory based on Harry Markowitz's model. The goal is to simulate various portfolios to maximize returns given a specific level of risk (volatility). Below is a step-by-step explanation of the process.

First, the historical data for the assets—such as Ørsted, rare earths, and solar ETFs—are downloaded from Yahoo Finance starting from January 1, 2020. The daily returns are then calculated to analyze the performance of these assets. In addition, futures contracts and bonds are incorporated into the portfolio. Specifically, a NdPr futures contract is added with both optimistic and pessimistic scenarios to assess its future potential. U.S. Treasury bonds with 2-year and 10-year maturities are also included, each with hypothetical annual yields of 3% and 3.5%, respectively.

A Monte Carlo simulation is then performed, generating 10,000 random portfolios by assigning different weight combinations to the assets. For each portfolio, the code calculates the annual return and the corresponding risk (volatility). It also computes the Sharpe ratio, which measures risk-adjusted performance, to identify the most efficient portfolios.

The next step involves visualizing the efficient frontier. A graph is plotted with risk (volatility) on the x-axis and expected return on the y-axis. Each point on the graph represents a portfolio, and the Sharpe ratio is depicted with a color scale to highlight the highest-performing portfolios. The result

is a visual representation of the efficient frontier, showing the optimal portfolios that offer the highest possible returns for a given level of risk.

The interpretation of the results provides deeper insight into the portfolio's performance. The optimal portfolio is represented by the points closest to the efficient frontier with a high Sharpe ratio, indicating the best combinations of assets. By analyzing the graph, you can observe how your current investments are positioned in terms of risk and return. If the goal is to minimize risk, attention should be given to the points on the left side of the graph (indicating low volatility). On the other hand, for those seeking to maximize returns, the focus should shift to the points higher up on the graph.

A higher Sharpe ratio reflects a more attractive portfolio, as it compensates risk with superior returns. The most vividly colored points on the graph indicate the portfolios with the best risk-adjusted performance.

In terms of optimizing allocations, portfolios with the highest Sharpe ratios are the most desirable, as they offer the best returns for the level of risk taken. If a lower-risk portfolio is preferred, the weight of bonds or low-volatility assets (such as clean energy ETFs or Ørsted) can be increased, while reducing exposure to more volatile investments like rare earth futures.

Diversification is another key aspect, as it ensures that the portfolio benefits from uncorrelated assets. The covariance matrix helps identify the degree of correlation among assets, making it possible to adjust allocations accordingly.

Currently, an indentation issue in the code is causing the graph to display incorrectly, without any data points. Once the code is corrected and the graph functions properly, the optimal portfolio allocation will become visible. This will allow for a more precise investment strategy aligned with the desired risk-return balance.

Risk Assessment:

Risk arises from the intersection between a hazard and vulnerability. While hazards can be unpredictable, identifying vulnerabilities allows for proactive solutions. Below is a breakdown of Ørsted's key vulnerabilities and strategies to mitigate them:

Supply Chain Disruptions for Rare Earths Due to Tensions Between China and the West: Western countries are highly dependent on China for rare earth elements, posing a significant supply chain risk. In response, several measures are being implemented to mitigate this dependency:

- Diversifying Supply Sources: Western nations are investing in alternative sources such as Australia, which holds substantial rare earth reserves. The U.S., for example, has partnered with Australia to secure a more stable supply.

- Increasing Domestic Production: Governments are bolstering domestic capabilities. The U.S. has awarded contracts to companies like MP Materials to process rare earth elements domestically, reducing reliance on Chinese imports.
- Investment in Technology and Processing: Western nations are improving their refining and processing infrastructure to enhance production efficiency and material quality.
- Geopolitical Collaboration: Allies are pursuing a strategy called "friend-shoring," ensuring that rare earths are sourced from friendly countries to mitigate geopolitical risks.
- Infrastructure Development: Investments in logistics and transportation networks aim to streamline the rare earth supply chain, making domestic production more competitive.
- Political Initiatives: Western governments are introducing policies and incentives to promote local rare earth extraction and processing to decrease exposure to geopolitical risks.

Mitigation
If these efforts fail, rare earth elements from China could become even more expensive and scarce. To hedge against potential price increases, Ørsted could purchase futures contracts, locking in prices for future purchases and securing a stable supply at predictable costs.

Opportunities:
Despite diversification efforts, Chinese rare earths remain critical for technological innovation and the green energy transition. Investing in companies working to develop alternative rare earth sources could be a profitable long-term strategy. This aligns with the growing demand from Western countries to build resilient supply chains, presenting a significant investment opportunity.

Risk of Renewable Energy Sector Growth Stagnation: This risk is minimal, as renewable energy is widely recognized as a critical growth sector. Several factors underscore the sector's positive outlook:

- Global Political Commitments: The EU, U.S., and China have committed to achieving carbon neutrality by 2050 (2060 for China). These goals necessitate increased investment in renewable energy.
- Geopolitical Competition: Nations are striving to lead in renewable technologies, including offshore wind and hydrogen. Germany and the U.K., for example, have made substantial investments in wind energy infrastructure.
- Government Incentives and Subsidies: Policies such as the U.S. Inflation Reduction Act (IRA) provide significant tax incentives, boosting the competitiveness of renewable projects, including Ørsted's.
- Strategic Business Investments: Ørsted is well-positioned to capture future demand with investments in offshore wind and green hydrogen. Their projects, such as hydrogen production in Denmark and wind farms in Asia, demonstrate a proactive strategy to meet future energy needs.

Given these dynamics, the renewable energy sector is expected to grow, even in the face of short-term challenges.

Failure to Outperform Competitors: Ørsted faces competition in the renewable energy market, but its strategic positioning provides it with several competitive advantages:

- Offshore Wind Market Leadership: Ørsted controls over 30% of the world's offshore wind capacity, giving it a dominant position in this fast-growing market.
- Diversified Portfolio: Beyond offshore wind, Ørsted invests in onshore wind, solar energy, bioenergy, and innovative technologies like Power-to-X, which produces renewable hydrogen. This diversification mitigates risks from over-reliance on a single energy source.
- Global Expansion: The company is expanding into new markets, particularly in North America and Asia, with projects in Taiwan and the U.S. This international strategy ensures it remains competitive as more countries invest in renewable energy.
- Long-term Power Purchase Agreements (PPAs): Ørsted has secured PPAs with major corporations, stabilizing revenue streams and enhancing its reputation as a reliable renewable energy provider.
- Technological Innovation: The company is pioneering new technologies, such as floating wind farms, to maintain its competitive edge in a rapidly evolving sector.

Mitigation
To further reduce the risk of underperformance, diversifying investments within the renewable energy sector is recommended. Allocating 20% of the portfolio to ETFs focused on green energy would spread the exposure and increase returns from industry-wide growth.

By addressing vulnerabilities in the rare earth supply chain, capitalizing on favorable renewable energy market trends, and maintaining a competitive edge, Ørsted is well-positioned to mitigate risks and capture future growth. Diversifying investments through ETFs and hedging with futures contracts provides additional safeguards, ensuring portfolio stability and long-term returns.

Conclusion

The renewable energy industry is experiencing rapid growth, driven by the global transition toward decarbonization and ambitious climate goals set by many countries. Offshore wind energy, in particular, has become a cornerstone of green energy policies. Ørsted A/S is positioned as a key leader in this field, benefiting from the rising demand for clean energy sources.

The renewable energy sector is poised for massive expansion in the coming years, driven by both geopolitical and environmental challenges. Rising tensions surrounding energy security, exacerbated by recent events, are pushing countries to accelerate their transition to green energy. Additionally, the need to meet climate goals is further fueling long-term demand for renewable solutions. Ørsted, as a global leader in offshore wind and a pioneer in technologies like hydrogen and energy storage, is ideally positioned to benefit from this global trend.

From a financial perspective, Ørsted has demonstrated impressive growth, with a 26% increase in revenue between 2022 and 2023. Its high operating margin highlights its operational efficiency, placing it favorably compared to competitors like Vestas and Siemens Gamesa.

Portfolio Allocation

Given the financial objectives, risk tolerance, and investment horizon, I will allocate 30% of the portfolio to Ørsted. This strategic allocation allows me to fully benefit from growth opportunities in the renewable energy sector. Further diversification is advised with 20% of the portfolio allocated to AAA-rated bonds, offering a safeguard against market volatility while ensuring stable returns. AAA bonds are particularly attractive as a secure investment, providing protection in an uncertain environment.

Ørsted's commitment to renewable energy, particularly offshore wind, offers an attractive growth potential. As geopolitical and environmental pressures intensify, the demand for sustainable energy solutions continues to grow. Governments around the world are accelerating investments in green energy to meet their climate goals, and Ørsted is perfectly positioned to capitalize on this transition. Its strong order book and diversified initiatives ensure its ability to generate stable cash flows in the long term, further boosting confidence in its future growth prospects.

Green Hydrogen: Ørsted is focusing its efforts on green hydrogen production, a key solution for decarbonizing heavy industries and transportation. The H2RES project in Denmark, aimed at producing hydrogen from offshore wind power, showcases Ørsted's innovative capacity in this space. This positioning within a rapidly growing sector places the company at the forefront of the energy transition.

Energy Storage: Ørsted is also exploring energy storage technologies, integrating battery systems to maximize the efficiency of its renewable projects. The ability to store generated energy is crucial for addressing the intermittency of renewable sources, ensuring a reliable electricity supply, and strengthening Ørsted's resilience to market fluctuations.

Carbon Capture and Storage (CCS): Acknowledging the importance of reducing carbon emissions, Ørsted is actively investing in CCS solutions. By collaborating with strategic partners to develop these technologies, Ørsted strengthens its commitment to sustainability while unlocking additional growth opportunities. CCS will become critical to meeting global climate targets as political and regulatory pressures to reduce CO_2 emissions intensify.

Ørsted's commitment to renewable energy, particularly offshore wind, offers an attractive growth potential. As geopolitical and environmental pressures intensify, the demand for sustainable energy solutions continues to grow. Governments around the world are accelerating investments in green energy to meet their climate goals, and Ørsted is perfectly positioned to capitalize on this transition. Its strong order book and diversified initiatives ensure its ability to generate stable cash flows in the long term, further boosting confidence in its future growth prospects.

Additionally, a strategic 30% investment in rare earth elements (REE) is recommended, divided as follows:

-15% in futures contracts with options on Chinese rare earths: China remains the world's largest supplier of rare earths, and with growing geopolitical and environmental challenges, demand for these materials is expected to surge. Chinese rare earths represent a significant growth opportunity as they are crucial for the production of renewable energy technologies like wind turbines and electric vehicles.

-15% in Lynas Rare Earths (LYC.AX): This investment targets the diversification of rare earth supply, a strategic priority for Western countries seeking to reduce reliance on China. Lynas is one of the few rare earth producers outside China, and its expansion projects in Malaysia and Australia make it a unique opportunity to capture the growing demand for rare earths.

Investing in rare earth elements (REE) presents a significant strategic opportunity to diversify the portfolio and capture the anticipated growth in this sector. Allocating 15% to futures contracts with options on Chinese rare earths is motivated by the massive growth expected in demand, given the importance of these materials in renewable technologies. Simultaneously, 15% is allocated to Lynas Rare Earths (LYC.AX), an Australian company well-positioned to capitalize on Western countries' efforts to diversify their rare earth supply chains. This dual strategy allows you to leverage China's dominance in the sector while benefiting from Western initiatives to reduce dependency, providing effective coverage against geopolitical risks.

Ørsted is ideally positioned to capture the opportunities offered by the global energy transition. Its leadership in offshore wind, combined with its initiatives in green hydrogen, energy storage, and carbon capture, places it at the forefront of the growing demand for sustainable energy solutions. Allocating 30% of the portfolio to Ørsted, complemented by investments in secure AAA-rated bonds and a well-thought-out strategy in rare earths, enables me to capitalize on long-term trends while proactively managing risks. The combination of AAA bond security and exposure to rare earth markets, through both China and Lynas, builds a resilient and forward-thinking portfolio.

This balanced approach, focused on the energy transition and strategic diversification, positions me to seize future opportunities in a world where geopolitical and environmental challenges are redefining the global energy landscape.