Lisbon School of Economics & Management
Universidade de Lisboa

MASTERS IN
FINANCE

MASTERS FINAL WORK
PROJECT

EQUITY RESEARCH:
ØRSTED A/S

MARGARIDA FERRAZ JOÃO

JUNE 2024

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SUPERVISOR:
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Abstract

The present report features an Equity Research on Ørsted A/S ('Ørsted' or 'Company'), set in accordance with the CFA Institute guidelines. Ørsted is a global top green energy company that develops, builds, operates, and trades sustainable solutions and related products. Geographically, the Company has established a solid presence in the APAC region, the US, the UK and Ireland, and Continental Europe.

The structure of this document allows for a comprehensive analysis of the Company's business model and a global picture of the renewables industry, which is experiencing growth. The energy transition emerges as a response to combating global warming. However, identified obstacles need to be addressed to ensure an effective path toward a plant powered by green energy.

The author issues a HOLD recommendation for Ørsted A/S, with a 2025YE price target of DKK429.35/share, using the FCFF approach. The analysis shows a potential upside of 9.0% over 18 months (IRR 6%), compared to the DKK383.90/share closing price on 10 June 2024. Additionally, other valuation methods were considered to complement the study.

This study exhibits a medium risk level. Factors such as supply chain disruptions could significantly impact the Company's value. Nevertheless, Ørsted has shown resilience by implementing strategies to overcome potential issues.

JEL classification: G00, G10, G30, G32, G35

Keywords: Equity Research, Valuation, Renewables, Ørsted A/S

Resumo

O presente documento consiste num relatório de *Equity Research* sobre a Ørsted A/S ('Ørsted' ou 'Empresa'), realizado de acordo com as recomendações do *CFA Institute.* A Ørsted é uma das maiores empresas a nível global de energias verdes, que opera, desenvolve, constrói e oferece soluções sustentáveis e outros produtos relacionados. Geograficamente, a Empresa tem estabelecido uma presença sólida na região APAC, nos EUA, no Reino Unido e Irlanda e na Europa Continental.

A estrutura deste relatório permite obter uma análise detalhada do modelo de negócio da Empresa e uma visão geral da indústria das energias renováveis, que está em forte crescimento. A transição energética surge como resposta ao combate do aquecimento global. Todavia, os obstáculos reconhecidos necessitam de ser endereçados de modo a garantir um caminho eficaz para um planeta movido a energia verde.

O autor emite uma recomendação de MANTER para a Ørsted A/S, com um preço-alvo no final do ano de 2025 correspondente a DKK429.35/ação, usando o método FCFF. A análise assinala uma valorização potencial de 9.0% em 18 meses (TIR de 6%), face ao preço de fecho de DKK383.90/ação a 10 de junho de 2024. Adicionalmente, outras abordagens de avaliação foram consideradas para complementar o estudo.

Este estudo exibe um nível de risco moderado. Fatores como interrupções na cadeia de abastecimento poderão influenciar substancialmente o valor da Empresa. Contudo, a Ørsted tem mostrado uma forte resiliência, implementando medidas estratégias para ultrapassar potenciais desafios.

Classificação JEL: G00, G10, G30, G32, G35

Palavras-Chave: *Equity Research*, Avaliação de Empresas, Renováveis, Ørsted A/S

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The culmination of my academic journey at ISEG, marked by its honoured standards and distinguished faculty, is encapsulated in the completion of my Master's Final Work. Over the course of five years, this institution has been my second home – a period denoted by diligence, perseverance, and devotedness, alongside friendship moments, enlightenment, and personal growth that will forever resonate within me.

A big thank you to my family for their unconditional support and all the values they have instilled in me. To my mother; to my aunt, a stalwart source of encouragement in pursuit of my dreams; and to my father, my guiding star whose presence illuminates me every day. I hope you are proud of this achievement, which is also yours!

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Glossary

%p	Percentage Point
$ / USD	United States Dollar
€ / EUR	Euro
APAC	Asia-Pacific
APV	Adjusted Present Value
B2B	Business-to-Business
bn	Billion
BNEF	BloombergNEF
BoD	Board of Directors
bps	Basis Points
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHP	Combined Heat and Power
CHRO	Chief Human Resources Officer
CO2	Carbon Dioxide
CoC	Code of Conduct
CPPA	Corporate Power Purchase Agreement
CSRD	Corporate Sustainability Reporting Directive
D&I	Diversity and Inclusion
DKK	Danish Krone
DPS	Dividend per Share
E	Estimated
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortisation
EMDE	Emerging Market and Developing Economies
EMEA	Europe, Middle East, and Africa
EPS	Earnings per Share
ESG	Environmental, Social, and Governance
EU	European Union
EU&R	Energy, Utilities, and Resources
EV	Electric Vehicle
F	Forecast
FTE	Full-time Equivalent
FY	Fiscal Year
g	Gram
GBP	British Pound Sterling
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GW	Gigawatt
H	Half
HSE	Health, Safety, and Environment
HVO	Hydrotreated Vegetable Oil
IC	Installed Capacity
IEA	International Energy Agency
IMF	International Monetary Fund
IPO	Initial Public Offering
k	Thousand
KPI	Key Performance Indicators
kWh	Kilowatt-hour
LCOE	Levelised Cost of Electricity
LTI	Long-Term Share-Based Incentive Scheme
LTIF	Lost Time Injury Frequency
m	Million
m/s	Meter per Second
M&A	Mergers and Acquisitions
MW	Megawatt
NGO	Non-Governmental Organisation
NPM	Net Profit Margin
NTD	New Taiwan Dollar
OECD	The Organisation for Economic Cooperation and Development
OPEX	Operating Expense
P	Price
P2X	Power-to-X
PP&E	Property, Plant and Equipment
PPA	Power Purchase Agreement
PT	Price Target
PV	Photovoltaics
Q	Quarter
QHSE	Quality, Health, Safety, and Environment
R&D	Research and Development
RE100	Global Corporate Renewable Energy Initiative
RES	Renewable Energy Sources
ROA	Return on Assets
ROCE	Return on Capital Employed
ROE	Return on Equity
ROIC	Return on Invested Capital
SARD	Sum of Absolute Rank Differences
SBTi	Science Based Targets initiative
sh.	Share
STEAM	Science, Technology, Engineering, Arts, and Mathematics
STI	Short-Term Cash-Based Incentive Scheme
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TNFD	The Taskforce on Nature-related Financial Disclosures
TRIR	Total Recordable Injury Rate
TSR	Total Shareholder Return
TWh	Terawatt-hour
UK	United Kingdom
UN	United Nations
US	United States
WACC	Weighted Average Cost of Capital
YE	Year End
YoY	Year-on-Year
IPO	Initial Public Offering

Ørsted A/S: Building a Cleaner Earth

Ørsted drives the transition to green energy, offering its customers premium clean solutions. With a comprehensive operating portfolio and advanced technology, Ørsted has a promising future.

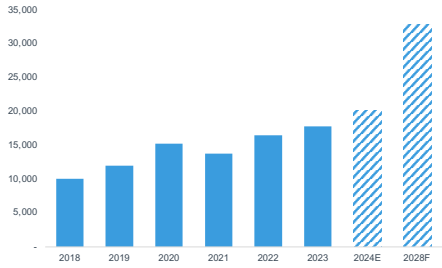
1. Research Snapshot

Table 1: Investment recommendation

Investment Recommendation	
Target price (2025YE)	DKK429.35
Upside/Downside	**9%**
Closing price (June 10, 2024)	DKK393.80
Risk level	Medium
Industry	Renewables
Stock exchange	Nasdaq Copenhagen
Ticker	ORSTED.CO
Outstanding shares	420m
Market cap	DKK167bn
Free float	44.90%

Source: Author analysis

Figure 1: Ørsted's offshore generation (GWh)



Source: Company data and author analysis

Figure 2: Company sustainable goals

Today	Zero wind turbine blades to landfill Reuse or recycle all solar panels from our portfolio
2025	98% reductions in emissions intensity
2030	All new renewable energy projects commissioned from 2030 should deliver net-positive biodiversity impact 40:60 gender balance in our total workforce
2040	Net-zero value chain

Source: Company data

Ørsted A/S (Ørsted) has a **HOLD recommendation**, with a 2025YE **price target of DKK429.35/sh. using the DCF model method**. Furthermore, other approaches are discussed in this report. The PT implies an upside **potential of 9% from the 10 June 2024 closing price** of DKK393.80/sh., with a **medium risk** (Table 1).

Through a resilient and innovative business model,…

The Company's history **is defined by a significant transformation from an oil and gas entity to a leader in renewables**. Today, it runs mainly in six countries, focusing on distinct operational segments. The Company's business model highlights:

- a **robust portfolio**, particularly in offshore wind;
- a highly **integrated supply chain**, with significant synergies;
- strategic **capital discipline** to secure sustainable returns to its stakeholders; and
- **strong partnerships**, ensuring compliance with local regulations and benefiting from local expertise.

Additionally, Ørsted has consistently demonstrated **a high commitment to cutting-edge technologies**, spending in the FY2019-23 period approximately **DKK10,597m in R&D** – greater distance from its key competitors. This can support the Company's ability to reduce operating costs as turbine sizes increase.

…the Company will unlock its potential,…

The outlook for the **Company's offshore wind operations is promising**.

Offshore power generation showed an 8.2% CAGR during the historical period. With higher productions, mainly due to expected increase of its installed capacity by 2030, Ørsted's 2026F **offshore revenue is projected to reach DKK84.7bn** (Figure 1).

1Q2024 news revealed a great milestone for the Company in Taiwan, with the launch of **the APAC region's largest offshore wind farm** via the Greater Changhua 1 and 2a projects.

…and make a difference.

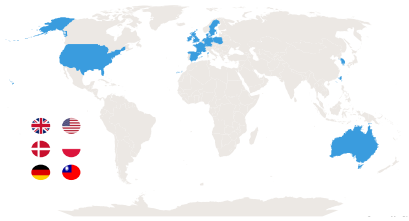
For the sixth successive year, the Company is acknowledged as **one of the world's most sustainable** entities in the Corporate Knights Global 100 ranking – #17 across global industries in 2024. This attainment supports its goal of achieving **zero-carbon neutrality** in all production processes by 2025 (Figure 2).

However, there are still limitations within the renewable energy industry that need to be addressed to **effectively manage global warming**, such as the necessity for grid updates, the need for energy storage solutions, and the acceleration of bureaucratic processes. Furthermore, it can be asserted that Ørsted's market position will depend on advancements on these areas.

Building a cleaner earth is a journey that must be undertaken together.

2. Business Description

Figure 3: Company global presence



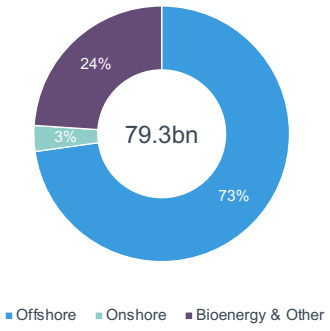
Source: Company data

Table 2: The top Business Transformations

No	Company	Headquarters
1	Netflix	US
2	Adobe	US
3	Amazon	US
4	Tencent	China
5	Microsoft	US
6	Alibaba	China
7	**Ørsted**	**Denmark**
8	Intuit	US
9	Ping An	China
10	DSB Gorup	Singapore

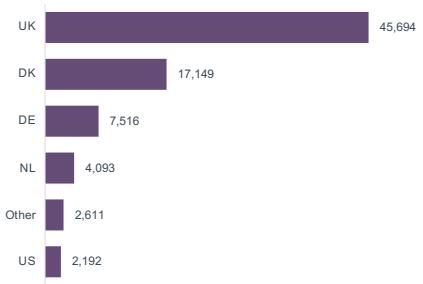
Source: Company data

Figure 4: FY2023 revenue by segment (DKK)



Source: Company data

Figure 5: FY2023 revenue by country (DKKm)



Source: Company data

Ørsted A/S ('Ørsted' or 'Company') is a leading global **energy company** based in Fredericia, Denmark. Employing approximately **8,900 people** and boasting a **market capitalisation of DKK174bn**, the Company engages in: a) the creation; b) building; c) operation; d) ownership; and e) trading of sustainable energy solutions and related products.

Ørsted has established a **strong presence** in the APAC region, the US, the UK and Ireland, and Continental Europe (Figure 3), enhancing its ability **to address regional decarbonisation needs**.

History

The history of Ørsted starts as the state-owned company Danish Oil and Natural Gas A/S (DONG) in the 1970s. After merging in 2006 with five Danish companies, Elsam, Energi E2, Nesa, Københavns Energi, and Frederiksberg Forsyning, DONG Energy made a strategic shift to a renewable energy group and invested in the development and construction of offshore farms in southern Denmark (0.8GW). During that period, the company bore the responsibility for a third of Denmark's carbon emissions. Later, in 2016, DONG Energy was listed on the Copenhagen Stock Exchange – **largest IPO in Danish past**. On 30 October 2017, Ørsted (named after the Danish scientist Hans Christian Ørsted) was born, a **main offshore wind company** focus entirely on green energy that produced 64% of its total power from renewable sources. The Company was **ranked seventh** on the Harvard Business Review list titled 'the Top 20 Business Transformations of the Last Decade' in 2019 (Table 2).

Currently, the Company is determined to **play a pivotal role in advancing towards a greener world** – ~35-38GW of installed renewable capacity by 2030.

Operational Segments

Ørsted functions within **3 core segments**: a) Offshore; b) Onshore; and c) Bionergy & Other. The Company's **FY2023 revenue reached DKK79.3bn**, resulting in a 31% YoY decrease due to the substantially lower power and gas prices in all markets and lower power and gas sales volumes. The Offshore segment had the highest revenue share (72.8%) (Figure 4).

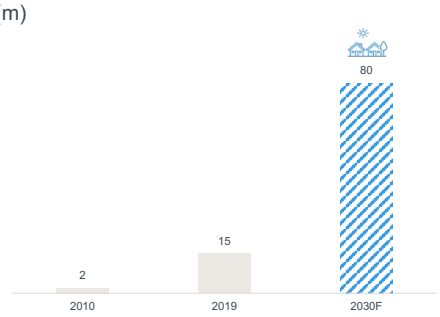
Geograpgically, while the **UK represented 57.7% of FY2023 revenue** – followed by Denmark (21.6%) and Germany (9.5%) –, the **US was the largest holder of Ørsted intangible assets and PP&E** (37.7% of a DKK183.2bn total amount) (Figure 5).

The Company **offers a unique supplier value proposition** based on an **integrated EPCO model**:

- **Enginnering** – extensive expertise, planning, and design capabilities that deliver **complex assets** within the broader energy framework;
- **Procurement** – the Company is pioneer in **establishing vital supply networks** at competitive rates;
- **Construction** – concurrently **execution of four-six major projects** (unmatched performance history) through the right talent absorved, prioritising environment protection, safety, and stakeholder engagement; and
- **Operations** – clusters, scale, and unparalleled database and platform as drivers for securing a **front-runner position** in asset management.

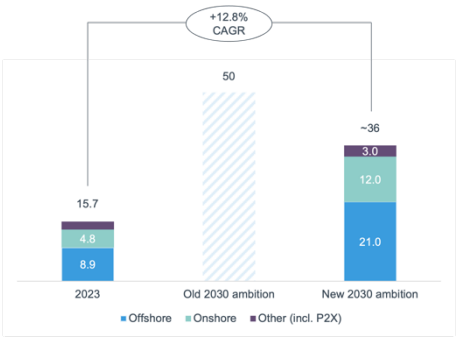
Offshore | The **Offshore** segment **develops, builds, owns, and operates** offshore wind farms, **including the exploration** of renewable hydrogen and e-methanol, and green fuels.

Figure 6: Ørsted energy powering US homes (m)



Source: Company data

Figure 7: Ørsted's IC by segment (GW)



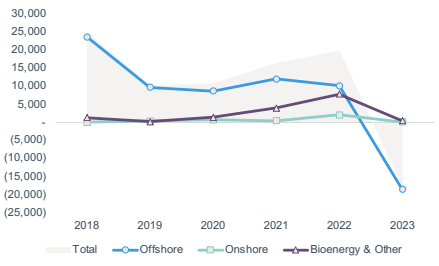
Source: Company data

Table 3: Ørsted's key financial figures

Financial figures	2021	2022	2023
Revenue, DKKm	77,673	114,417	79,255
Offshore volume, GWh	13,808	16,483	17,761
Onshore volume, GWh	8,352	13,146	13,374
EBITDA, DKKm	24,296	32,057	18,717
Net working capital, DKKm	978	(907)	(6,215)
Capex, DKKm	35,409	34,318	38,222

Source: Company data

Figure 8: Ørsted's EBIT by segment (DKKm)



Source: Company data

In FY2023, the **Offshore segment achieved a DKK13.8bn EBITDA**, corresponding to **an EBITDA margin of c.23.6%**. EBIT was **severely** impacted due to **impairment losses amounting to DKK25,526**, primarily attributed to greater costs of capital, inflationary pressures, and supply chain challenges associated with **Ocean Wind 1 in the US** – awarded by the New Jersey Board. The project dissolution incurred large expenses related to contract terminations.

The FY2023 offshore wind power generation **capacity** increased to **4,986MW**, which results in a **CAGR of 8.3% from 2019 to 2023**, mostly driven by offshore wind farms in Taiwan. Offshore wind speeds of 9.8m/s – still 1% beneath a normal wind year – also contributed to a +8% YoY in offshore power generation (17.8TWh).

Ørsted currently **has a leading strategic offshore portfolio**, having developed one third of the world's IC – excluding Mainland China. Offshore FY2023 capacity totalled **19.2GW**, which is split between: a) **8.9GW installed** – over 30 operating wind farms; b) **6.7GW under construction**; and c) **3.7GW awarded**, involving Sunrise (924MW), Baltica 2 (1,498MW), and Baltica 3 (1,255MW) projects (Appendix 1).

In addition, aligned with the Company's guidance, **offshore IC is expected to grow by 11-13GW until 2030**, attaining ~57-58% of the Company's total IC.

Renewable hydrogen and e-fuels – positioned in Denmark since 2021 and now also on the US Gulf Coast – have reached huge milestones. The Company's ambition for this evolving technology by 2026 is to accomplish approximately **0.1GW of IC** that is strongly driven by its FlagshipOne project (Europe's hugest e-methanol endeavour).

Onshore | Onshore activities **involve the development, construction, ownership, and operation** of onshore wind and solar farms, as well as storage centres.

The **Onshore segment** – mainly in the US market – reported a **FY2023 EBITDA of DKK3.0bn**, resulting in a **-18.5% YoY**. The increase in generation at the Company's European onshore wind farms – considerable fixed costs related to the German and French platform – was offset by reduced generation at various onshore farms in the US. **Load factor and availability declined** respectively by 4% and 5%. Yet, FY2023 solar PV generation increased from **1.9TWh to 2.1TWh**. **Improved 2024E Offshore earnings** are driven by higher availability in the US market and a power generation progress of 30%.

Onshore FY2023 **capacity was 6.4GW**, which is split between: a) **4.8GW installed**; and b) **1.6GW under construction**, of which 74.7% comes from solar PV (Appendix 2 and Figure 7). In the US, the Company has **fifteen operational wind farms**.

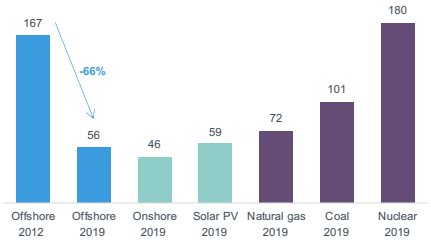
The Company entered into multiple offtake contracts with tech entities, comprising a 150MW PPA with Google in the US covering a 15-year duration.

Onshore installed capacity **needs to increase at a CAGR of 5.5%** over the FY2023-30F period – equivalent to an addition of 4-7GW – to reach the Company's segment target.

Bioenergy & Other | The **Bioenergy & Other** segment **encompasses operations** such as electricity and **heat generation**, **provision of biomass ancillary services**, **optimisation of the gas portfolio**, and **B2B markets**.

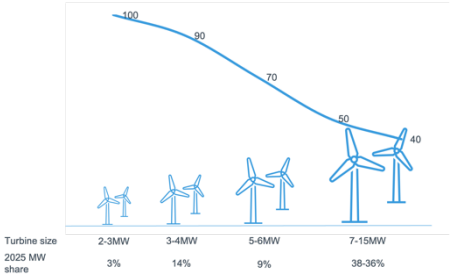
The **Bioenergy segment's performance** in FY2022 was categorised by high power price fluctuations and favourable spreads. However, in **2023**, these factors **were not leveraged**, leading to a negative impact on power generation – **-26% YoY**. Sales of gas and power **failed by 25% and 30%**, respectively, as an outcome of the gradual reduction of Ørsted's remaining UK B2B operations. The described performance led to **a DKK1.5bn FY2023 EBITDA,** i.e. an **EBITDA margin of 7.9%** that was reduced by more than twice compared to FY2022.

Figure 9: FY2019 LCOE by technology (€/MWh)



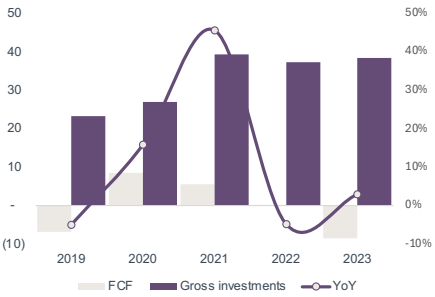
Source: Company data

Figure 10: Ørsted's OPEX/MW



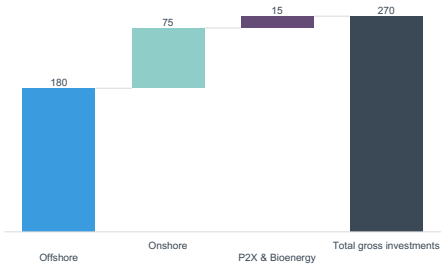
Source: Company data

Figure 11: Ørsted's FCF and gross investments (DKKbn)



Source: Company data

Figure 12: 2024E-30F gross investments (DKKbn)



Source: Company data

The FY2023 bioenergy installed **capacity** – incl. thermal heat capacity from biomass – **amounted to 2,075MW**.

Bioenergy & Other's **2024 earnings are expected to be higher** due to the predicted re-opening of the Tyra gas field in April and higher CHP plants earnings – 2023 high costs of biomass and coal relative to the electricity market price.

Key Drivers of Profitability

There are different features motivating the growth and efficiency of the renewables, namely: a) competitive costs; b) supportive measures; c) innovative technologies; d) continuously rising demand; and e) hard investments – detailed explanation provided in Section 4.

The **noted performance** of the Company is mainly attributed **to two** of these drivers.

Cutting-Edge Technology | By the end of 2030, Ørsted expects to **supply ~80,000 individuals** with its value-added services secured through strategic alliances.

The Company's profitability is **greatly correlated** with innovative technologies – incl. improved installation methods, designs, logistics, and digital tech development – that enable to **lower costs and efficiency of power**. The **LCOE** for offshore declined at a **CAGR of 14.5% in the 2012-2019 period** (Figure 9). Large renewable **assets** are **becoming increasingly complex** – deep know-how and capability necessitated. In addition, the **Company continues to cut its operating expenses** – OPEX/MW has consistently reduced as turbines sizes have risen (Figure 10) –, meaning less annual service hours required (**-45% per MW**) and **automated and digital** examinations of blades, structures, and restrained spaces using drones and robots.

In FY2023, charged research and development costs **amounted to DKK2.3bn**. The offshore segment accounted for 80% of this figure (cost leadership benefit). Onshore development expenditures showed an increase of DKK194m.

Large-Scale Investments | The Company's portfolio suggests a significant pipeline that is focused on: a) **value** (over volume); b) a solid **capital** structure; and c) **market** prioritisation (Figure 11).

FY2023 **gross investments totalled DKK38.5bn**, with **74.3%** attributed to offshore activities – followed by **23.6%** for onshore. From 2024E-30F, **Ørsted plans to invest DKK270bn** – of which DKK130bn is planned trough to 2026 – to reinforce its growth pipeline. The investments will be allocated across the Company's technologies, with approximately 70% designated for offshore, 25% for onshore, and 5% for Bioenergy (incl. P2X) (Figure 12). During the specified timeframe, Ørsted **anticipates realising an average ROCE of ~14%** -3%p from 2022.

Company Strategies

The year **2023 posed numerous challenges** for the renewable energies and for the Company that required specific adjustments to its **growth trajectory**. Consequently, its operating model now concentrates on:

- **monitoring the supply chain and inflation** to avoid capacity disruptions;
- **controlling CAPEX and breakaway profiles** that safeguard higher flexibility on project timelines and significant capital commitments; and
- **enhancing governance and regular reviews**, including both risk reviews in the Group Executive Team and the BoD and internal peer evaluations.

Ørsted firmly supports its long-term aspiration of attaining key positions through **five fundamental pillars** that are listed below.

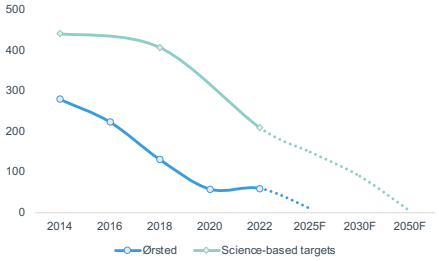
Figure 13: Ørsted's growth platform

Source: Company data

Figure 14: Ørsted's 2023 highlights

Source: Company data

Figure 15: Carbon intensity of Ørsted's energy generation and operations (g CO_2e/kWh)



Source: Company data

Table 4: Ørsted's shareholder structure

Shareholders	2022	2023
Denmark	**61%**	**65%**
Danish State	50.1%	50.1%
Andel A.M.B.A	5%	5%
Retail investors	2%	3%
Danish institutuional investors	4%	7%
North America	**10%**	**9%**
United Kingdom	**10%**	**10%**
Others	**19%**	**16%**

Source: Company data

Expanded Growth | Ørsted aims to expand its current installed **capacity of 15.7GW by 19-22GW until 2030** on a robust **multi-technology** platform (Figure 13), allowing competitive advantage. While maintaining its **offshore top position** across Europe, Americas, and APAC, the Company pretends to define a significant **regional growth platform in onshore renewables and shape the P2X market**. In geographic terms, the Company is withdrawing from several offshore markets (e.g. Norway, Spain, and Portugal), as part of its downgrading of development works.

The Company's platform drives significant synergies and competitive advantage:

- **cost savings in procurement** through leveraging industry-leading annual builds in both offshore and onshore activities;
- **satisfy customer demand** by exploiting the synergy between production assets and the flexibility of storage;
- **provide international offtake partners** with global solutions; and
- **facilitate the decarbonisation of difficult-to-transition sectors** through green fuels and renewable hydrogen generation.

Green Capital Transition | The Company is running to **become the world's largest** and most impactful investor in the transformation to green energy. Capital employed in FY2023 **was DKK125.2bn**, **marginally lower** than the reported FY2022 number of DKK126.1bn – decrease largely attributed to **impairment losses** and cancellation fees, which offset the impact of new investments. The Company's **FY2023 adjusted ROCE was 12.9%**.

Ørsted made history as the world's first energy company to **issue a blue bond** – an important private tool of EUR100m.

Funding Approach | All debts are **financed in a similar manner** – transparent and straightforward debt arrangement. Ørsted's balance sheet financing approach allows improved scalability and flexibility, while reducing financing expenses – c.100bps for established markets.

Leading-Talent Platform | The Company **pretends to outline a robust renewable power employer brand**, fostering an inclusive culture and diverse skill set that align with its vision.

The Company has selected distinctive people initiatives:

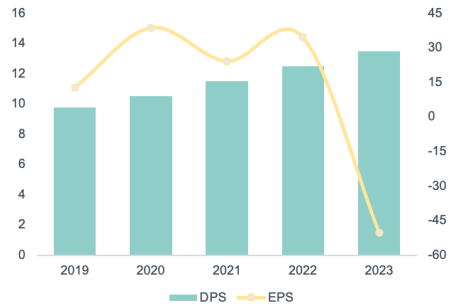
- global graduated programme – 4,200 applications in 2023;
- talent development programmes implemented at every level of seniority;
- employee-led IN (e.g. Gender IN, Disability Equality IN, Race & Ethnicity IN, and LGBTQ+ IN); and
- wind power ready scheme for underprivileged communities' individuals.

Sustainability Leader | Ørsted is recognised as **one of the key** players and catalyst of a **more sustainable economy**, with a **beneficial** effect on nature and the creation of jobs and a **fair society**. Collaborations with suppliers, NGOs, and governments – further detailed on Section 3 – enhance Ørsted's **sustainable commitment** (Figure 15).

Ownership Structure

As of 31 December 2023, Ørsted had **c.420m shares outstanding** issued on a **one-share-one-vote basis**, while **a total of 151k treasury shares** (-195bps YoY) were held to cover incentive schemes. The Company's share capital remained unaffected for 6 consecutive years, with **a free float of 44.9% and the Danish State as the top shareholder (50.1%)**.

Figure 16: Ørsted's DPS and EPS (DKK)



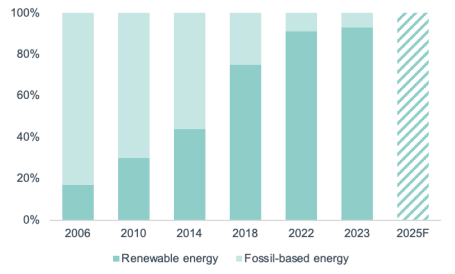
Source: Company data

Table 5: ESG scores (index 0-100)

Company	Environmental Pilar	Social Pilar	Governance Pilar
Ørsted A/S	**90**	**65**	**65**
RWE Aktiengesellschaft	74	58	70
Vestas Wind Systems A/S	76	70	67
Fortum Oyj	86	54	78
EDP - Energias de Portugal S.A.	89	94	75
E.ON SE	72	79	83

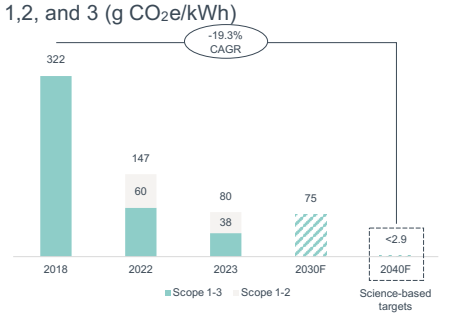
Source: Refinitiv

Figure 17: Share of green energy generation



Source: Company data

Figure 18: Greenhouse gas intensity, scope 1,2, and 3 (g CO_2e/kWh)



Source: Company data

The 2023YE **number of shareholders rose by 13% YoY to 133k**. Danish investors, comprising institutional (7%) and retail investors (3%), hold 65% of the voting rights, followed by American owners (Table 4). Among institutional investors, **BlackRock, Vanguard Group, and Norges Bank are the largest**, each **holding over 1%** of the share capital.

Dividend Policy | The Company **stock yielded a total decline of 39%** in 2023 with the share price falling by 41%. On 1 November, the DKK253 lowest traded price was recorded. Still, Ørsted paid a **DPS of DKK13.5** for FY2022, representing a DKK5.7bn amount and a dividend yield of 2.3% – slightly below the 3.0% industry average yield. Following the recent **revised capital** structure, the BoD **decided a dividend holiday** for the financial years 2023-2025 (in place of the earlier goal to raise DPS by 100bps within the specified timeframe). The payout is to be resumed in year 2027.

Additionally, **EPS revealed a CAGR of -40.7% during 2019-2023** – despite a share buyback programme in 2018 and 2020 (Figure 16).

3. Management & ESG

Ørsted steadily **adheres to international sustainability frameworks**, applying into its green statements the EU CSRD. Reports focus on four points – **climate, nature, people, and governance** (Appendix 3) – that are delineated within each respective ESG pillar.

Ørsted has an overall **ESG score of 75.4 (A-)** and Controversies score of 100.0 (A+) – with a strong Environmental pillar score (A) –, distinguishing itself by **securing the third position among its peers** (Table 5 and Appendix 4).

Environmental

The Company's new RES deployment helps lessen the effects of climate change but also demands considerable natural resources like steel – indirectly harmed climate. Environmental impacts and risks are revealed by the Company's double materiality approach (Appendix 5 and Appendix 6).

Climate change (E1) | The Company pledges to achieve **carbon neutrality by 2025** – verified by the SBTi – and to leverage green bonds, which currently constitute over 88% of its bond portfolio. Decarbonisation of its power production and operations – including GHG reductions – have been applied to deliver the Company's 2040 net-zero goal through carbon evolution trailing, the coal planned phase-out in 3Q24, and its vehicle fleet – that by the end of 2025 is estimated to be entirely electric (Appendix 7). The current Company's **green share is 93%** – suggesting that the target of 99% set for 2025 is highly likely to be attained (Figure 17). The Company recently entered into a deal with ESVAGT to introduce the world's inaugural **eco-friendly fuel vessel** in 2024 for offshore activities.

FY2023 scope 1-3 GHG emission intensity fell by 46% YoY – the Company intends **to cut carbon emissions by 99%** through 2040 (Figure 18). Carbon footprint of new offshore wind farms is measured by Ørsted's **Life Cycle Assessment models**. Yet, the overall supply chain decarbonisation needs to be concerted on two other areas, namely **supplier collaboration and offtake agreements**. Recently, Ørsted merged the First Mover Coalition's Near-Zero Steel 2030 Challenge.

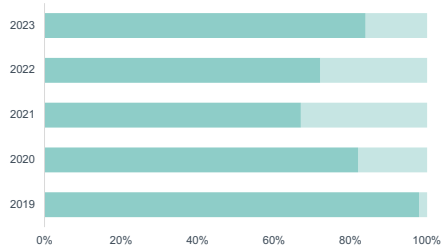
Biodiversity and ecosystems (E4) | Ørsted's biodiversity efforts are **designed by several factors**, such as the EU's biodiversity approach for 2030, TNFD, the Global Biodiversity Framework, and national legislation of respective countries. The 2023 Company's activities within the UK coincide with **44 protected** areas and incorporate

endangered species, whereas wind farms located in the **APAC region do not share such overlaps**.

The Company has taken a key role in **pioneering partnerships** aimed at distributing clean energy that revives nature. Notably, collaborations have been established with organisations like WWF to launch the BioReef marine restoration project, alongside policies with The Nature Conservancy to safeguard almost 1,000 acres of threatened native prairie.

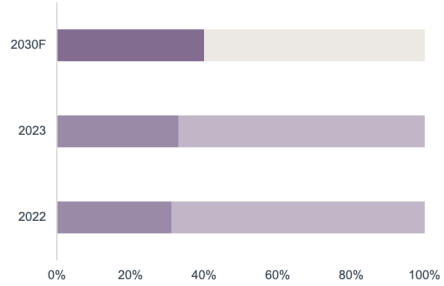
Resource use and circular economy (E5) | By combining **circular principles** into its functioning model, the Company strives to minimise waste and optimise the reuse and recycling of crucial components. Although **FY2023 total waste** has risen to **121k tonnes** (Figure 19), 98% of this value is labelled as non-hazardous that includes the Renescience plant to convert household waste into energy. This surge was a product of sludge rises at the oil terminal in Denmark, coupled with increased ash production from the Company's CHP plants. The Company – joining Vestas – procures turbines towers made from 25% low-emission steel and recycled material blades. In addition, Ørsted has teamed up with SOLARCYCLE for the **reusing of PV modules**.

Figure 19: Total amount of waste diverted from disposal



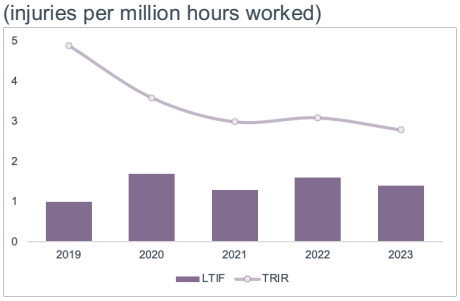
Source: Company data

Figure 20: Gender balance total workforce (women/men)



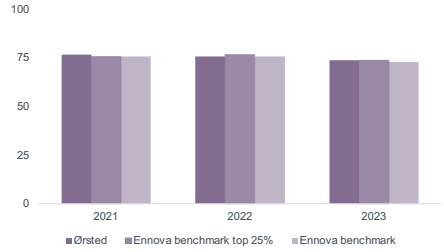
Source: Company data

Figure 21: Ørsted's LTIF and TRIR evolution (injuries per million hours worked)



Source: Company data

Figure 22: Employee satisfaction in top 25% (index 0-100)



Source: Company data

Social

The Company's sponsorship policy advocates for a safe and inclusive energy sector that fosters value creation for local communities.

Own workforce (S1) | As of the end of 2023, the Company employed **8,905 persons** – growing at a **CAGR of 8.1%** over the last 5 years – that represented approximately **80 nationalities**, with a notable emphasis on Denmark (48.9%) and the UK (14.7%). This number displays that Ørsted is dedicated to attracting **people from all cultures** and backgrounds. The Company's global human rights policy allies with both the UN Guiding Principles on Human Rights and the OECD Guidelines. Concerning gender diversity, the Company has a proportion of **female workforce of 34%** – **2%p above** the renewable industry average. Equal gender distribution – i.e. at least 40% women and 60% men across all levels of the Company – has been targeted to be achieved by 2030 (Figure 20). In addition, existing active networks include EMEA D&I, Women of Renewable Industries, and UN Women's Empowerment Principles.

Previously identified adjustment opportunities in workplace security were successful scored – with the Company's FY2023 **TRIR decreasing by 10% YoY to 2.8 injuries**, approaching the target of 2.5 injuries for 2025 (Figure 21). There were no individual fatalities. Employee satisfaction has stayed relatively stable over period – surpassing the 2023 Ennova standard of 73 out of 100 (Figure 22) – and the **turnover rate was 9.6%** +1.2%p from the 2020 historically low value. Nonetheless, FY2023 employees experiencing stress rose to 13.7%, prompting the Company to implement the Fitness & Health for Frontliners well-being plan.

Workers in the value chain (S2) | Ørsted works with **primary suppliers** to enhance the ability to track metals throughout the supply chain – engaging with the IRMA and the Global RBC Agreement for the Renewable Energy Sector. The Company intends to **map the origin off all 10 key metals** used, e.g. copper, iron, tellurium, and cobalt.

New suppliers are required to adhere to the Company's Business **Partners Code of Conduct** and integrate the procurement system that outlines: a) commitment; b) risk screening based on country and category risks; c) assessment; and d) improvement. In 2023, the Company conducted more than **360 risk screenings** to contracts above DKK3m. Moreover, supplier due diligence techniques (Appendix 7) embraced CoC desktop assessments – which saw a 15% YoY increase due to the inclusion of new suppliers located in countries with higher CoC risks. The application of new sourcing

and supplier selection procedures caused **130 HSE desktop appraisals** (-22% YoY) at the same year.

Supply workers have access to local training sessions, performance monitoring, and campaigns addressing ethnicity and bullying.

Affected communities (S3) | While the Company's projects explore socio-economic opportunities, energies are ongoing to quantify them with numerous stakeholders – **pilot measurements expected during 2024**.

The latest updates from Ørsted in 2023 feature:

- promoting wind farm tourism in Korea;
- concluding the first round of funding for Polish community projects; and
- organising the STEAM for Everyone tour in the UK for 90 schoolchildren.

Management and Corporate Governance

Ørsted adheres to Danish law and sustainable corporate principles, employing a two-tier management system where the BoD serves as the highest supervisory authority (Figure 23). New delegated authorities will be executed throughout 2024 to facilitate the realisation of growth aspiration and expedite decision-making processes.

The Board of Directors | The Company's BoD **consists of 12 elements** – of which eight are elected by the annual general meeting pursuant to Danish mandatory rules and four by the employees –, with **7 independent directors** (Appendix 8). Employee elections are ordinarily held every four years. Presently, the age range of the board – demanding experienced individuals – spans from 29 to 69 years old and more than half of the directors are of non-Danish origin. **Gender equality** under Danish law is verified – **female figure of 37.5%**.

Led by Thomas Thune Andersen, the BoD is primarily responsible for: a) overseeing the Company's strategic management; b) appointing the Executive Board and Board Committees; c) approving huge investments and divestments, such as decisions on capital base and key policies; d) monitoring the evolution of sustainability and climate strategies; and f) discussing the performance of the Group President and CEO.

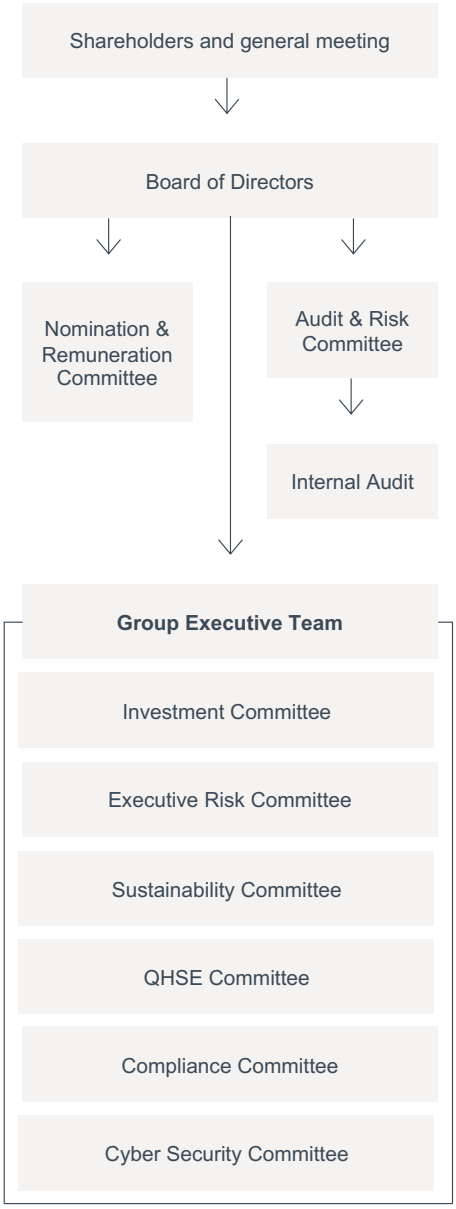
The Audit & Risk Committee helps the BoD in financial and ESG reporting, while the Nomination & Remuneration Committee handles issues relating to the compensation management. Both **Committees are made up of 3 individuals**.

The Group Executive Team | The Group Executive Board, which is represented by the **CEO and Group President (Mr. Mads Nipper)**, the interim CFO (Mr. Rasmus Errboe), and the CHRO (Ms. Henriette Ellekrog), supervises daily operations through the Group Executive Team – a total of **10 members.** The team's composition reflects educational backgrounds across finance, economics, and engineering, coupled with experience spanning the energy and added industries – that are required as part of a new structure in the Americas, Europe, and APAC divisions. The Executive Board in 2023 had a **33.3% women** representation. Only one of the Company's executives is member of the BoD (Appendix 9).

The Group Team also **appoints 6 committees**, e.g. the Investment Committee, the QHSE Committee, and the Sustainability Committee.

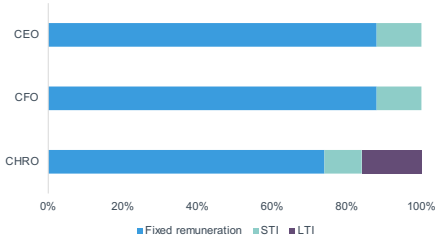
Remuneration Policy | Compensation is regulated by an internal policy that support the Company's strategy, commitment to sustainability, and objectives. The payment arrangement distinguishes **2 components** for the Executive Team: a) a fixed portion covering base remuneration and personal advantages; and b) a variable portion tied to both cash-based (STI) and share-based (LTI) incentive schemes that range **up to 15% and 20% of the target salary base**, correspondingly (Appendix 10). Particular

Figure 23: Ørsted's governance model



Source: Company data

Figure 24: 2023 remuneration composition



Source: Company data

KPIs are evaluated in the ST – shared (70%) and individual targets (30%) – and LT programmes – subject to the TSR delivered by Ørsted (Appendix 11 and Appendix 12). The 3Q23 recognised impairment had a huge effect on these metrics, resulting in the Company being **placed last in TSR (-5%)** when compared to 10 comparable companies.

The **CEO awarded remuneration** in FY2023 amounted to **DKK18.4m -19.8% YoY**, with fixed remuneration accounting for 88% of the total. The STI made up DKK2.2m – 46% of the maximum bonus (Figure 24).

Members of the BoD are provided with a **fixed annual fee +1.5% YoY** (Table 6).

Business Conduct (G1) | Ørsted is an old associate of the Confederation of Danish Industry's Anti-Corruption Working Group and Sanctions and Trade Controls' Group, embodying a zero-tolerance policy on bribery and corruption. In 2023, there were **18 incidents of inappropriate or unlawful behaviour** – stated through the Company's whistle-blower system –, with 9 of them linked to business violations occurring in the workplace.

All newly hired workers have to complete a **mandatory e-learning** course on ethical corporate practices that must be retaken every two years.

Table 6: Remuneration policy

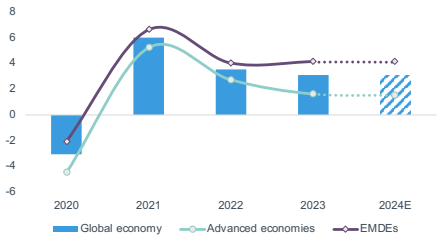
Remuneration awarded (DKK '000)	**2022**	**2023**
Board of Directors		
Fixed annual fee	6,807	6,907
Executive Board		
Fixed remuneration		
Fixed base salary	30,632	27,849
Benefits, incl. social security	859	858
Variable remuneration		
Cash-based incentive scheme (STI)	6,455	3,712
Share-based incentive scheme (LTI)	6,463	2,719
Ordinary remuneration	**44,409**	**35,138**
Garden leave period	11,405	7,071
Severance pay	9,270	6,210
Total remuneration	**71,891**	**55,325**

Source: Company data

Figure 25: World population prospects (bn)

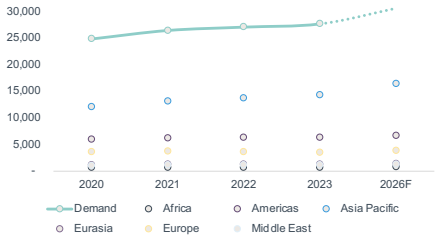
Source: United Nations

Figure 26: World GDP growth (%)



Source: IMF

Figure 27: Electricity demand by region (TWh)



Source: IEA

4. Industry Overview and Competitive Positioning

World Economic Outlook

Global economy is at present undergoing a period of **disinflation alongside steady growth**. However, even with an economic scenario conducive to **a soft landing** and balanced risks, the results of the COVID-19, the Russia-Ukraine war, and the cost-of-living crisis persist with resilience. Global headline inflation is **forecasted to halve from its 2022 level to 4.4%** in 2025.

World Population

Population registered a CAGR of 1.1% during 2013-23, fluctuating from **7.2bn to 8.0bn people**. East and Southeast Asia made up 29% of the 2023 global population. Moreover, it is anticipated that the world will reach **9.7bn people by 2050** – powered by the rising preference for urban living (Figure 25).

World GDP Growth

In the 2016-19 period, world GDP remained relatively stable, with the highest growth rate reaching 3.4%. Though, **in 2020 world GDP declined by 3.1% YoY** (Figure 26) – due to the struggle posed by the coronavirus pandemic. Proposals that incorporate recovery programmes and national policies are still predictable to support economy's regular return. The 2024E GDP growth assumes an unchanged value from 2023 that was **0.4%p higher** than in 2022. Advanced economies will show a growth outlook of **1.8% YoY by 2025**, while emerging and developing markets are estimated to **reach 4.2% YoY** – with emphasis on India (6.5%) and Saudi Arabia (5.5%).

A decline from 5.8% to 4.4% YoY is projected for the 2024E consumer price index. This potential sharp drop could be seen as a **positive sign for world recuperation**, as central banks would likely ease their restrictive monetary policy.

World Electricity Demand

Over time, **electricity demand has typically mirrored** the growth of the world GDP. Global energy consumption – despite the experienced **energy crisis** – increased by 2.4% in 2022, following a surge of 6% YoY (the greatest since 2010) to 26,281TWh

in 2021 (Figure 27). These numbers stemmed from the continued global acceleration in the electrification of the transport and heating sectors.

In 2023, **advanced economies restrained global power demand growth**, as they grappled with decreased manufacturing and industrial outputs. However, the world's demand is projected to **raise at a CAGR of 3.4%** in 2024E-26F. Of worldwide users, China, the US, and Europe will account for c.62% of energy need in 2026. Especially within the EU, electricity vehicles, heat pumps, and data centres will remain essential progress pillars – addressing a requirement of 2,561TWh by 2026.

World Electricity Supply

The composition of the **electricity supply mix** is strongly influenced by:

- available resources;
- policy decisions; and
- the economic competitiveness of technologies.

Global electricity generation facing negative weather shocks reached 29,734TWh in 2023 (Figure 28). Nuclear and renewables are estimated to **lead the world's supply energy growth** over the next three years – covering more than **33% of total power by 2025** –, even though grid investments and adaptability in structures are needed to ensure their smooth integration. Coal output is set to drop by 1.7%/year until 2026. Still, battery systems will play a fundamental role to frequency control and delivering operational reserves.

Total CO_2 emissions from power production **need to be managed**. As a result of the rise in coal-fired generation in the APAC region amid reduced hydropower outcomes, emissions were noted at higher levels in 2023 +90pbs YoY. Indeed, China and India will contribute to a 67% share of global sector emissions during 2024E-26F – partially offset by cuts in the US and Europe (Figure 29). Global CO_2 intensity will decrease from 455g CO_2/kWh in 2023 to 400g CO_2/kWh in 2026, with the **EU annual forecast reductions at an average 13%**.

Industry Overview

Industry Structure

The market structure is described as an **Oligopoly**, meaning that it is **dominated by a few major players**. The Company holds a 30% market share in offshore wind farm ownership, with Vattenfall following closely behind.

Renewables industry is **at a growth phase** in its life cycle**.**

Mergers and Acquisitions Operations

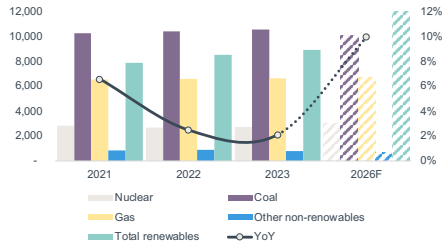
Engaging in M&A operations is crucial not just for shaping energy companies' future strategies but also for conserving their business stability. During 2023, oil enterprises revealed their pledge to strategically position themselves along the value chain and make investments **aligned with green goals**.

The number of deals in the EU&R sectors **grew from 2022 to 2023 by 1%** (Figure 30) – **930 deals in Power & Utilities in 2H2023**. However, M&A deals value was **$53b inferior** compared to FY2022. Building upon COP28, **M&A activities will gain momentum in the short to medium term**, despite headwinds arising from higher costs of capital and interest rates.

Industry Trends

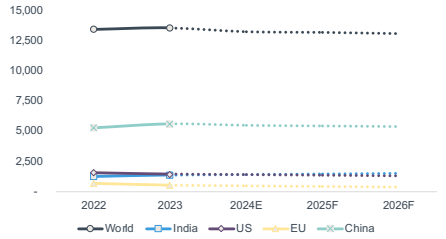
Artificial Intelligence | Renewable energy players are enhancing their effectiveness through the utilisation of AI tools that permit:

Figure 28: Electricity generation by source (TWh)



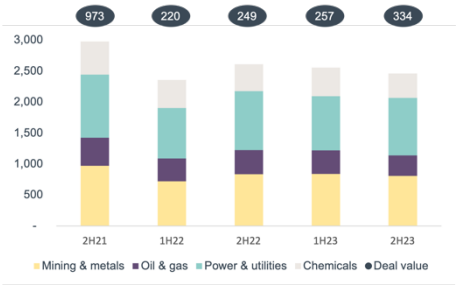
Source: IEA

Figure 29: CO_2 emissions prospects (Mt)



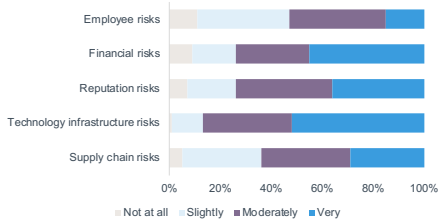
Source: IEA

Figure 30: M&A deal volumes by industry and deal value ($bn)



Source: PWC

Figure 31: Concern about cybersecurity related risks in energy firms



Source: EY

- **accurate forecasts** for power generation, improving capacity factors and return on investments;
- **cost savings** in the planning, development, and construction stages of projects, along with O&M tasks – predictive maintenance;
- **optimisation** of grid lines; and
- **managing** energy demand by using historical consumption.

It should be noted, however, that lack of knowledge, legal concerns, and data privacy are examples of obstacles regarding this matter.

Cybersecurity | Energy entities are now heavily focusing on cybersecurity threats – particularly severe – to ensure a resilient green future. In 2023, cyberattacks on this industry **grew by more than 200% YoY** (Figure 31).

Worldwide, 44% of the companies are investing over **$50m per annum** in their cyber aptitudes. Nonetheless, just 35% of them are adequately positioned to handle abrupt risks, in contrast to 48% of other industries, as per the EY Global Board Risk Survey 2023. **The acceptance of hyper-converged infrastructures** appears as an integral solution to bridge cyber-physical and IT risks.

CPPAs | The PPA market is **increasingly prevalent**, catalysing hundreds of billions of dollars into the energy transition. Between 2019-2023, renewable power contracts recorded a volume of **144.2GW** (Figure 32), with 32% occurring last year. Some 45% of them were located in the Americas region, but it is Europe that represented by far the **highest regional growth**, i.e. 75% YoY in 2023. This figure resulted from falling CPPA prices in European markets. At RES, solar energy contributed to 50% of PPA deals in the same period.

Among entities entering green agreements, Amazon is the **key buyer** for the 4th year straight – 8.8GW of PPAs across 16 countries. In accordance with BNEF, the RE100 members will by 2030 require an extra 105GW of wind and solar power to meet their objectives.

Sustainable Fuels | Decarbonised fuels comprise standard options such as ethanol, as well as more complex drop-in fuels like HVO or synthetic fuels that are compatible with traditional internal combustion engines. Given the positive contribution of these fuels in regulating GHG emissions – incl. in hard-to-abate sectors –, investments of **$40-50bn are underway** by 2025. Indeed, governments decisions, e.g. subsidies or tax credits, are likely to structure this number.

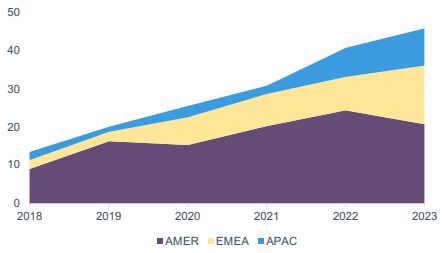
Energy need for road transportation in 2050 could **potentially comprise 37% green fuels** (Figure 33).

The Offshore Wind Power Boom | The growth of offshore wind energy is **expected to expand rapidly**, with a total capacity reaching **630GW by 2050** – up from 40GW in 2020. Different countries are exploring this technology. The APAC region will show the most substantial long-term growth potential by 2050, with a volume of c.410GW, i.e. a CAGR of 12.8% in the 2020-50F period – surpassing the EMEA region by the mid-2030s (Figure 34).

The prospects of this market are also **shaped by technological progress**, including the development of turbines with capacities of ~13-15MW in 2024, an increase from the average size of 8MW installed in 2020. Moreover, floating foundations are being investigated for ocean depths exceeding 1,000 meters. These features will lead to a **drop in the LCOE for offshore wind**, which is projected to vary between €150/MWh and €50/MWh during 2015-24E.

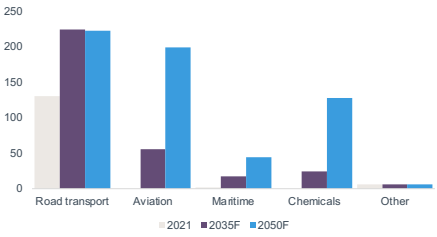
Demand Drivers

Figure 32: Global CPPA volume by region (GW)



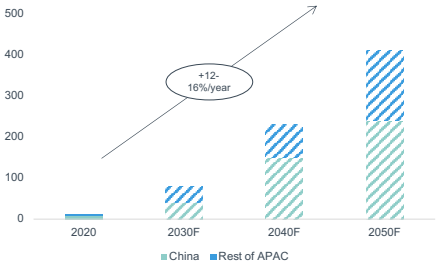
Source: BNEF

Figure 33: Global sustainable fuels demand by sector (Mt/year)



Source: McKinsey

Figure 34: APAC offshore wind IC (GW)



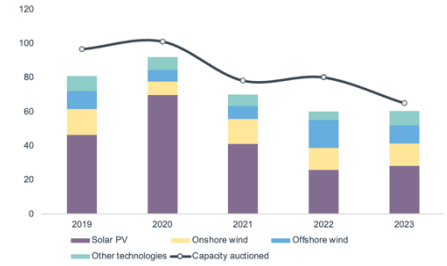
Source: McKinsey

Table 7: Global LCOE benchmarks ($1,000/MWh)

Global LCOE	2H09	1H22	1H23	Trend
Hydrogen			239	
Nuclear			225	
Battery storage		153	155	
Offshore wind	218	86	74	↘
Gas		81	92	
Coal		74	74	
Onshore wind	127	46	42	↘
Fixed-axis PV	414	45	44	↘
Tracking PV	398	40	48	↘

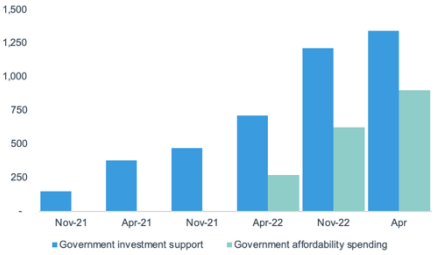
Source: BNEF

Figure 35: RES auctions capacity by technology (GW)



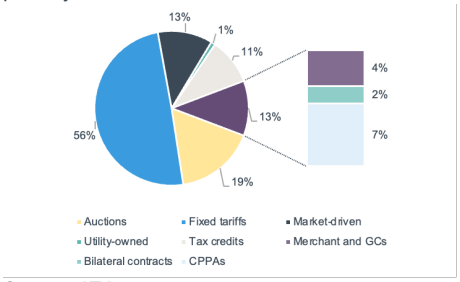
Source: IEA

Figure 36: Government spending for clean energy investment support ($bn)



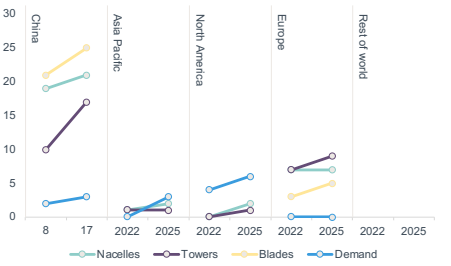
Source: IEA

Figure 37: Utility-scale renewable capacity by primary driver



Source: IEA

Figure 38: Wind equipment manufacturing capacity by region and component (GW)



Source: IEA

World Green Appetite | Engagement in **fostering sustainability** – underscored by the ratification of the Paris Agreement in 2015 – is imperative across primary sectors reliant on power systems, including buildings, power generation, transportation, and industry. In 2023, investments in the energy transition surged to another record high, **climbing 17% YoY to $1.8trn**. China reclaimed its position as **the major market** of spending at $676bn. Renewable energy projects totalled $623bn – equal to a CAGR of 27.1% between 2020-2023. However, they were overtaken by electrified transport, propelled by the ongoing acceptance of EVs. Corporate debt bond issuance grew by 11% YoY.

Forecasts indicate that capital flows must triple throughout the rest of the 2020s, with particular emphasis on EMDE to mitigate the existing investment gap – only 15% of the total clean investment is allocated to these economies.

Decreasing Costs | In the midst of energy crises, **renewable energy sources have become increasingly cost-competitive**, especially due to the sustained high prices of fossil fuels. Indeed, the anticipated surge in renewable energy capacity worldwide **from 4.2TW in 2023 to ~11.0TW by 2030**, coupled with developments in technology and scale economies, is having a positive impact on these technologies. In the 2H09-1H23 period, the average LCOE for onshore wind and solar PV – the cheapest forms of electricity generation – **dropped by 89% and 67%**, respectively. The 1H23 global LCOE for battery storage was down 22% from the peak in 2H2022 (Table 7). Despite a complex energy market, RES auctions will display promising prices (Figure 35).

Supply Drivers

Regulation and Clean Future Incentives | Authorities **have dedicated $1.34trn to support renewable investments since 2020**, highlighting latest policy packages in the EU, Australia, Brazil, and Japan. Many of these initiatives are tailored specifically in response to the US' Inflation Reduction Act – **the dominant contributor** offering tax breaks for RES components. In 2022, however, fossil fuels subsidies were more than $1trn, potentially distorting the energy market. As a result, existing programmes and subsidies have been strengthened by **affordability spending** (e.g. grants, price regulations, and vouchers), which increased to $900bn in 2Q2023 (Figure 36).

According to IEA, renewable capacity growth until 2028 will predominantly be driven **by fixed tariffs and premiums – 56%** (Figure 37 and Appendix 13). Conversely, in Latin America, market-driven procurement holds larger role (c.74%) due to Brazilian demand for CPPAs.

Driving Innovation | Renewable project developers benefit from **cost declines and greater load factors** stemming from production equipment efficiency, particularly in wind and solar energy. In 2023, manufacturing capacity for main turbine components remained at about 110-125GW/year (Figure 38). Sophisticated wind turbine designs, with average **hub heights of 151m and larger rotor diameters (~250m)** are slated for implementation in offshore wind farms by 2035. These progresses will raise wind capacity by approximately 11GW from 2019 and enhance operational margins. Solar panels commonly use polycrystalline cells. However, mono solar panels show better efficiency (15%-20% LF), albeit at an upper cost. Bifacial modules have emerged as an alternative **capable of boosting energy production by up to 30%**.

Competitive Positioning

Peers Identification

Companies denominated under **'Utility Services'** – mainly located in Europe due to the strategic presence of the Company – were chosen for the competitive positioning analysis. Moreover, a thorough SARD approach was employed (Appendix 14). The

Ørsted peer group consists of **the top 5 companies**, explicitly RWE, Vestas, Fortum, EDP, and E.ON (Table 8).

Table 8: Peer group according to SARD

Company	SARD	Rank
Ørsted A/S	**0**	**0**
RWE Aktiengesellschaft	21	1
Vestas Wind Systems A/S	23	2
Fortum Oyj	26	3
EDP - Energias de Portugal S.A.	27	4
E.ON SE	28	5

Source: Author analysis

Figure 39: Porter's 5 forces

Source: Author analysis

Table 9: Oil major renewable IC (GW)

Company	IC
Ørsted	**15.7**
BP	2.7
Shell	2.5
TotalEnergies	12.0
Galp	2.6
Eni	3.0
Repsol	5.0

Source: Companies' data

Table 10: PESTLE analysis

Area	Low	Medium	High
P Political	Government subsidies and tax credits		
E Economic	Supply chain bottlenecks		
S Social	Rising energy consumption		
T Technological	Storage and green hydrogen solutions		
L Legal	EU's decarbonisation roadmap		
E Environmental	Natural disasters		

Source: Author analysis

Porter's 5 Forces

Threat of New Entrants - Moderate (3) | The renewables industry is highly capital-intensive. Although facing **high regulatory barriers** to entry, companies possessing adjacent abilities like oil majors could emerge as substantial players due to their cash reserves, know-how, and global scale. Among these, BP, in FY2023, had ~58GW of green capacity in its pipeline (Figure 39 and Table 9).

Bargaining Power of Suppliers - Low (2) | Ørsted has close to 22k suppliers, which encompass firms such as MHI Vestas Offshore Wind, Vestas and Siemens Gamesa. Considering **the LCOE is essential** when selecting electricity developers due to the global accessibility of inputs, which reduces the pricing power of suppliers. However, the choice of wind turbine and solar manufacturers can vary depending on the unique features of each project. Without vertical integration, suppliers may distinguish profit opportunities as product costs increase, potentially impact business performance.

Bargaining Power of Customers - Moderate (3) | Energy demand tends to be quite inelastic. Buyers' dependence on RES – as a result of local regulations – can impact their bargaining power negatively. Conversely, Ørsted's key customers include three of the tech sector's big five, Nestlé UK&I, and PepsiCo that purchase energy through PPAs. The Company's offshore portfolio also **contains the EU's biggest PPA with Amazon**, contracted at 250MW. This trend shows that customers expect to secure the most competitive prices during these contracts – **low switching costs**.

Threat of Substitute Products - Low (2) | External factors are driving growth in the industry, changing the global energy mix. Conventional sources (fossil fuels) **are no longer** a reasonable answer for customers due to environmental concerns. By 2050, RES are projected to **constitute around 90% of global power generation**, with the demand for crude oil expected to drop sharply after 2030. Clean hybridisation seems to be a promising approach to **guaranteeing reliable electricity supply**.

Rivalry Among Competitors - High (4) | Competition within the **industry is on the rise**, with an expanding array of incentives to participate but also high exit costs. Yet, only a specific subset of the firms holds significant market dominance. As of FY2023, Ørsted had a gross IC of 15.7GW. Oil majors are expanding their operations into the renewables. Despite this landscape, it is common for rivals to collaborate on offshore projects, pooling their experience and resources.

SWOT Analysis

To enhance the depth of this study, a SWOT analysis was conducted (Table 11).

Table 11: SWOT analysis

S Strengths	W Weaknesses	O Opportunities	T Threats
• Leading technology • Significant knowledge and reputation in offshore wind • Large pipeline combining diversified green solutions • Great corporate PPAs portfolio • Strong stakeholder relationship	• Geographic concentration in European markets • Heavy reliance on offshore wind	• Growth in renewable hydrogen and e-fuels • Increasing floating offshore wind • Green bonds as an emerging source of capital • Sustainable trends • Expansion into new markets • Continuously decreasing power costs	• Supply chain disruptions • Intense market competition • Adverse weather conditions • Uncertainty about tax exemptions and subsidies

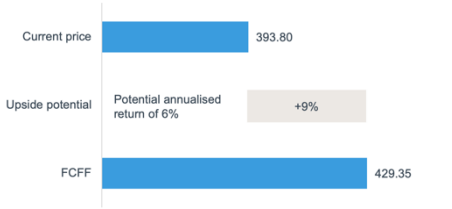
Source: Author analysis

5. Investment Summary

Table 12: Recommendation system

Recommendation	Upside
SELL	-5%≤
REDUCE	>-5% & ≤5%
HOLD	>5% & ≤15%
BUY	>15% & ≤30%
STRONG BUY	>30%

Figure 40: Ørsted's 2025YE PT



Source: Author analysis

Figure 41: Ørsted stock price (DKK), Jun23-24

Source: Yahoo Finance

Table 13: Investment risks summary

Investment risks	Classification
Operational (OR)	
Offshore power generation	Medium
Cybersecurity	High
Farm-downs and partnerships	Low
Environmental (ER)	
Climate risks	Medium
Political, regulatory, and legal (PRL)	
Legal compliance	Medium
Regulatory intervention	High
Market (MR)	
Competition	High
Cost inflation and supply chain	High
Currencies and energy prices	Medium
Financial (FR)	
Inflation and interest rates	Medium

Source: Author analysis

The base scenario points a **HOLD recommendation** for Ørsted, with a 2025YE price target of DKK429.35/sh. – reflecting an upside potential **of 9% over 18 months** from the DKK393.80/sh. closing price, as of 10 June 2024 (Figure 40). However, it **carries a medium risk**.

The Company's Market Positioning

The renewable market is poised for a dynamic-speed take-off. However, as demand, unprecedented investment, and increasing competitiveness drive this growth, supply chain, grid, and labour issues are exacerbated. In this context, **the Company stands out as top industry player**, particularly in offshore wind projects (with a strong and disruptive portfolio). As of today, 93% of its produced energy is based on renewable energy sources.

Over time, **the Company has shown a healthy balance sheet, accompanied by huge profitability margins compared to its peers**. Yet, the year 2023 presented huge challenges that had a notable impact on its financial performance. Among these issues were **impairment losses and cancellation fees totalling DKK36.4bn** – related to the Ocean Wind 1 project. Subsequently, Ørsted stock price experienced an abrupt drop in November 2023 to DKK293.80 (Figure 41). Despite operational setbacks and market pressures, it demonstrated resilience, recovering to DKK397.40 by early June 2024. **Given this rapid but challenging landscape**, the implementation of a conservative investment attitude seems prudent. Moreover, with a recently improved operating model focused on tracking inflation, managing capacity conflicts, and prioritising growth shifts, the Company is **well-positioned to realise its long-term potential**.

The Company's revenue, which saw a decrease of 31% in 2023, is projected to reach DKK88.6bn in 2024. From 2025F onwards, EBIT margin is expected to average pre-pandemic levels of 16.46%, largely due to offshore wind harnessing.

Valuation Methods

For the purposes of the Company's valuation, several approaches were outlined:

- the 2025YE price target is based **on the FCFF approach**;
- **the APV and FCFE methods** supported the investment recommendation from the previously showed analysis;
- **the multiples method** was based on the designated peer group to complement the valuation, computing price and EV multiples; however, **scenario analyses were only detailed for the first three presented techniques**; and
- **the Dividend Discount Model** was not reflected by the author, as a result of the Company's recently announced dividend holiday until the year 2025.

The suggested approaches yield a Company **share price between DKK418.33 and DKK459.01**.

Key Investment Risks

Like many other players in the industry, the Company is greatly **exposed to external** factors that need to be brought to the attention of investors (Table 13). The Company stock price is particularly **vulnerable to supply chain bottlenecks**. Moreover, there is a special focus on working threats.

Despite **its strong ESG combined scores**, the Company must consistently address these risks to sustain investor confidence and its competitive edge in the renewables industry.

6. Valuation

The Company's valuation was performed through the **Discounted Cash Flow (DCF) approach** – incorporating financial projections that consider Ørsted's future strategy, macroenvironment, and underlying estimates.

Ørsted's FCFF was discounted using **the cost of capital**. This discount rate permits the computation of the unlevered WACC, which is needed to discount potential cash flows in the APV method (Table 14).

The **DCF robustness** was also appraised – detailed explanation provided in Section 8.

Table 14: FCFF computation

FCFF, DKK	
PV (FCFF)	6,713
Terminal value	293,948
PV (Terminal value)	251,096
Enterprise value	**257,809**
Total debt	82,960
Cash & cash equivalents	7,545
Minority interests	1,906
Equity value	**180,488**
Equity value per share	**429.35**

Source: Author analysis

Forecast Analysis

For comprehensive details on the Company's valuation, please refer to Appendix 15, Appendix 16, Appendix 17, and Appendix 18.

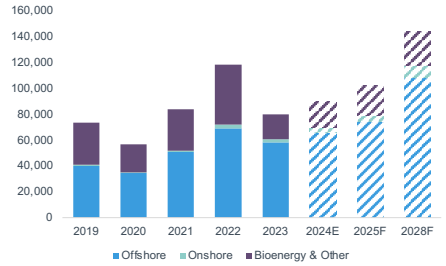
Revenue | In modelling Ørsted's revenue, two different approaches were considered based on the nature of its respective operational activities:

- primary business operations – follows **both the Company's power generation capacity (GWh), mapped out from its existing project pipeline, and the ASP (DKKm/GWh)**; and
- other activities/eliminations – follows **the corresponding FY2018-23 CAGR of -32.9%**.

The proposed produced volume reflects the Company's **growth expectations in its generation capacity** – achieved through global installed capacity by 2030 (~36GW). Market conjectures were not contemplated as Ørsted relies on its strategic initiatives. On the other hand, the applied ASP will increase based **on the average growth rate over the last 5 years**. These values show no significant variations in the near future. This outlook can be supported by the predictable **stable inflation** and the increasing **cost competitiveness** of renewable technologies, as discussed in Section 4.

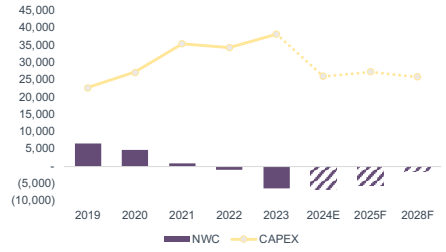
During the 2024E-2028F period, the Company's **revenue is projected to grow at a 13.2% CAGR**, mostly driven by progress in both the offshore and onshore segments (Figure 42).

Figure 42: Revenue projections (DKKm)



Source: Company data and author analysis

Figure 43: NWC and Capex projections (DKKm)



Source: Company data and author analysis

CAPEX | As previously mentioned, the renewables industry is recognised as **capital-intensive**.

When studying the Company's needed future investments, values are extracted from its disclosed reports. Total capital allocation is projected to amount DKK270bn in the 2024E-2030F period. However, as a result of the Company's late news, this number has dropped from the 2023 guidance. The 2024E amount was adjusted to follow the **effective investment release of last year (~65%)** (Figure 43).

Regarding the non-cash items, depreciation and amortisation charges – based on a 3-year historical average – **were valued at 6% and 13%**, respectively.

Discounted Cash Flow Valuation

The Free Cash Flow to the Firm **(FCFF) was the methodology chosen to assess the Company** (Appendix 19), utilising the 2024E-28F forecast period. It is also worth noting that, due to Ørsted's planned gross **investments**, cash flows are expected to stabilise from 2026F onwards. In addition, between 2027F-2028F, FCFF is projected to double. This method **resulted in a DKK257.8bn EV**. The achieved price target of DKK429.35 leads to a **HOLD recommendation**.

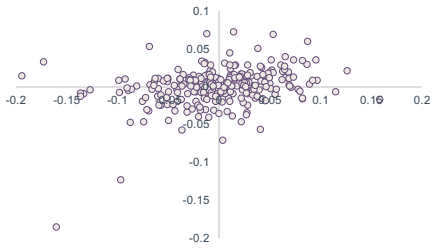
Table 15: WACC inputs

Input	Source	Rate
Risk-free rate	10y Germany government bonds	2.60%
Beta	Blume-adjusted	0.75
MRP	Fernandez (Denmark)	5.80%
Cost of equity	CAPM	6.93%
Cost of debt	Risk free rate + Corporate bond spread	4.60%
Tax rate	Statutory tax (Denmark)	22%
D/E ratio	Peers average	46%
WACC		**5.39%**

Source: Author analysis

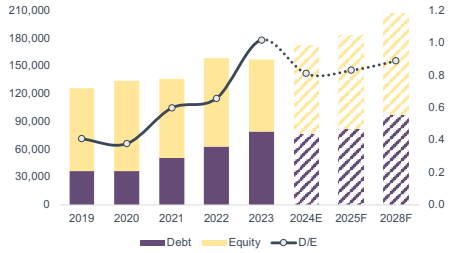
WACC | The Company's **cost of capital is 5.39%** (Table 15).

Figure 44: Beta – linear regression



Source: Author analysis

Figure 45: Ørsted's capital structure (DKKm)

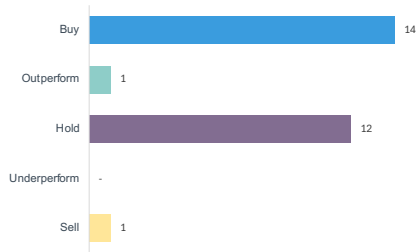


Source: Company data and author analysis

Figure 46: Valuation outputs (DKK/sh.)

Source: Author analysis

Figure 47: Consensus recommendation



Source: Company data

For the **cost of equity (6.93%)**, the CAPM formula was utilised. The risk-free rate of 2.60% was estimated considering the 10-year German Treasury Bond average yield. Based on the Danish equity risk premium disclosed in Fernandez's survey, the MRP was derived to be 5.80%. The 0.75 Blume-adjusted beta was determined by studying Ørsted's weekly returns over the last 5 years against the STOXX Europe 600 index (Figure 44). Additionally, the pure-play method (Appendix 20) was also performed, leveraging data from Ørsted's peer group. Damodaran's cash-adjusted methodology provided a levered beta of 0.80 (Appendix 21).

Ørsted's cost of debt (4.60%) was achieved through the default spread technique, with an associated BBB+ debt rating.

The **capital structure** reflects the average capital structure of comparable entities, as the Company does not disclose a specific target value.

Terminal Growth Rate | The **growth rate is assumed at 2.66%**.

Despite the challenges faced in 2023, the Company pretends to produce **significant growth and returns** by 2030.

The IMF's estimates for real GDP growth in the Company's main markets were used to calculate the sustainable growth rate.

Alongside the anticipated growth of renewables, this rate could increase – positively impacting the share price.

Other Approaches

Adjusted Present Value (APV) | The APV is regularly used when changes occur in the capital structure mix. For instance, Ørsted's D/E ratio faced an increase in 2023 (Figure 45).

By discounting both the value of the FCFF and the interest tax shield at 5.86% – the unlevered discount rate –, a price target of **DKK458.89/sh.** is reached (Appendix 22). This value **supports the previously mentioned HOLD recommendation**.

Flow to Equity | To conduct the Flow to Equity method, the unlevered cost of equity (5.10%) was computed. After applying this rate, an **Equity Value of DKK193.0bn** is highlighted – resulting in a **DKK459.01/sh.** PT. The **HOLD recommendation** based on the DCF method is once again confirmed (Appendix 23).

Relative Valuation | The relative valuation includes the nominated peer group of the Company as outlined in Section 4 (Table 8).

For this study, both price and EV multiples were analysed – P/Earnings and EV/EBIT were not measured due to Ørsted's negative outcomes in FY2023. Of the remaining, P/Book Value of Equity and EV/EBITDA were excluded as they generated deviating results owing to outlier peer multiples. The other two multiples yield **an average PT of DKK418.33/sh.**, within a range of DKK399.31 to DKK437.35 per share (Appendix 24).

- P/sales – peer median and mean of 1.03x and 0.95x, respectively; and
- EV/sales – peer median and mean of 3.20x and 1.49x, respectively.

This methodology, however, was not considered relevant to the valuation purposes as it pertains to 2023 values.

Author vs. Consensus

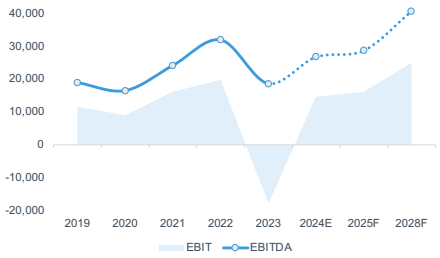
Consensus information is outlined in the Appendix 25.

The author's 2025YE PT is close to the consensus of DKK448.16/sh. – meaning an alignment with the investment recommendation of 12 out of 28 investors (Figure 47).

7. Financial Analysis

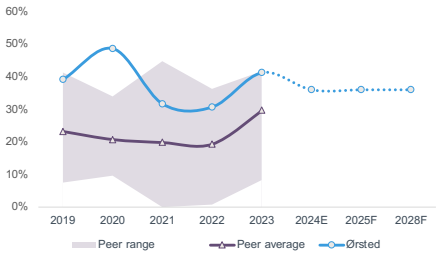
Additional details on the Company's financial ratios can be found in Appendix 26 and Appendix 27.

Figure 48: Ørsted's EBIT and EBITDA (DKKm)



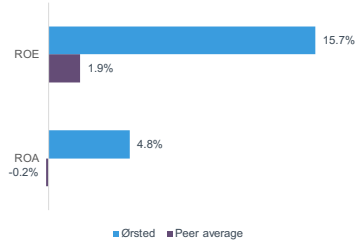
Source: Company data and author analysis

Figure 49: Ørsted's GPM



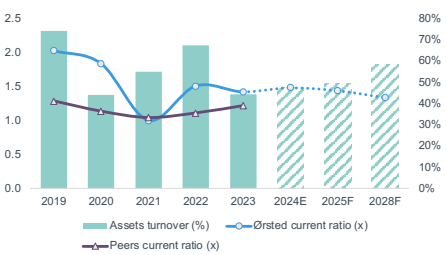
Source: Company data and author analysis

Figure 50: Ørsted's FY2022 ROA and ROE



Source: Company data and author analysis

Figure 51: Ørsted's current ratio (x) and asset turnover (%)



Source: Company data and author analysis

2023 Unsatisfactory Profitability

Ørsted has **historically achieved top-tier profitability**, driven by its robust portfolio. The **Company's GPM has outperformed its competitors**, changing between 39% and 41% in the 2019-23 period. This ratio showed a record level in 2020 despite the challenges posed by the COVID-19 pandemic, highlighting Ørsted's **past know-how and resilience** (Figure 48).

FY2023 EBIT margin fell to -22.53%, resulting in **a 39.81%p decrease YoY** – highly affected by the Company's withdrawal from 2 major projects in the US. **It is expected to rebound to pre-pandemic levels**. The Company's 1Q2024 interim report already underscored positive prospects, with EBIT increasing to DKK5.8bn. Similarly, **2028F NPM will stabilise at 14.58%**, accompanied by high offshore margins (Figure 49).

This reflects the **inherent volatility of large-scale green projects**.

R&D as a Growth Engine

The Company's return measures **are coherent with its profitability margins**. ROE is projected to increase to 9.68% in 2024 (Figure 50), mostly due to the **net income recovery**, as asset turnover should **remain relatively steady** over time. **ROA has also traditionally stood out compared to the peer group**, although the advantage is not as significant. It is expected to fluctuate from 3.75% to 5.15% during the 2019-28F timeframe.

The described outlook reinforces the Company's ability to **invest heavily in leading-edge technologies, while conserving good cost control management**.

Capital Needs to Harness Offshore Winds

The Company's **capital structure has remained solid throughout the past years**. Debt-to-Equity ratio presents an average value of 0.61x for that specific time, ranging 0.41-1.02x. The FY2023 result is justified by upper volumes of both green and **blue bonds,** totalling EUR2,000m and EUR100m, correspondingly.

Compared to its peers, the Company **has the second lowest leverage**, showing its stronger cushion for sudden issues. Yet, considering Ørsted's significant **employing plans over the forecasted horizon**, Debt-to-Capital is expected to grow to ~46% in 2028F. In addition, **2027F interest coverage will recover to 4.80x**.

The proposed investments are also expected to impact the Company's FCFF that is projected to turn cash-positive only from 2026F onwards.

Maintaining Healthy Efficiency and Liquidity Levels

Efficiency ratios indicates that Ørsted will **continue to effectively leverage supplier credit** while receiving advance payments from customers.

The Company has demonstrated **a superior capacity to generate cash compared to its peers**, with both current and cash ratios oscillating 2.03-1.42x and 0.80-0.60x, respectively, from 2019 to 2023 (Figure 51). These figures are likely to keep following the historical trend.

The Dividend Holiday

Over time, the Company has distributed attractive returns to its shareholders, with **a payout ratio averaging closely 50% between 2019 and 2022**. However, due to its

negative 2023 results, dividend payments are projected to be restored only by 2027. From 2026F onwards, proposed **DPS is expected to increase by DKK0.7 until the final predicted period**. Despite all its peers paying dividends for the year 2024, only Fortum shows a comparably strong dividend commitment policy.

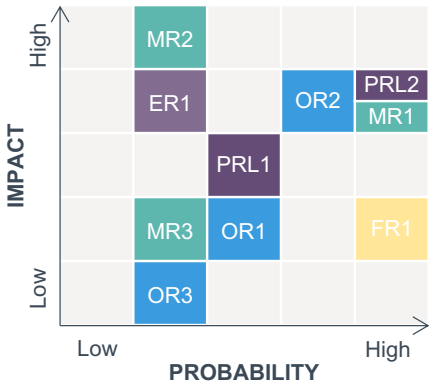
This move appears judicious to **enhance the Company's business sustainability**.

8. Investment Risks

Risk Identification

The Company's **business activities are exposed** to significant risks that are divided into the following classes: a) Operational; b) Environmental; c) Political, Regulatory, and Legal; d) Market; and e) Financial. Within these threats, Ørsted combines them at the Group level – a **comprehensive risk management** framework (Figure 52 and Figure 53).

Figure 52: Risk matrix



Source: Author analysis

Figure 53: Key risks and their mitigation

Risks	Mitigation
Operational risks	
Offshore power generation	Blockage modelling
Cybersecurity	Regular training sessions
Farm-downs and Partnerships	Equity management
Environmental risks	
Climate Risks	Sustainable operations
Political, regulatory, and legal risks	
Legal Compliance	Legal expertise
Regulatory Intervention	Government engagement
Market risks	
Competition	Portfolio's economies of scale
Cost inflation and Supply Chain	Hedging programmes
Currencies and Energy Prices	Combined long-term CPPAs
Financial risks	
Inflation and Interest Rates	Asset-liability matching

Source: Company data and author analysis

Operational Risks | Offshore Power Generation (OR1)

Challenges due to irregular wind conditions (e.g. speed, blockage, and wake effects) are encountered in offshore generation. These variables significantly impact revenue and necessitate through appraisal when making investment **selections**, drawing on data from pre-construction and historical performance. The Company's wind portfolio is mainly influenced by the wind climate prevalent in Europe. Inaccurate **estimations could lead to faulty business plans and investment strategies**.

Mitigation: Benefiting from its extensive experience, the Company **has developed refined methods** like blockage modelling and precise wind speeds extrapolation to enrich the respective business segment.

Operational Risks | Cybersecurity (OR2)

Cyberattack threats are initiated from deliberate action of individuals, groups, or even nations **seeking to undermine and profit from the Company**. The current energy crisis and geopolitical tensions, notably in Ukraine, heighten this risk – with Russian hackers targeting energy infrastructure. While **minor incidents are common, major cybersecurity risks pose major obstacles** to the Company's financial stability.

Mitigation: The Company implements **key plans** tailored to both assets and system vulnerabilities – backed by its global governance model. Regular **training sessions** in accordance with its 'Information and cybersecurity policy' and information **forums engagement** further bolster defences.

Operational Risks | Farm-Downs and Partnerships (OR3)

The Company's **partnership strategy** – principal on financial planning and strategic objectives – comes with risks such as potential delays, lower proceeds, limited buyer interest, and regulatory and economic restrictions. Not concluding upcoming farm-downs or facing delays could have **effects on the credit rating and value** of Ørsted. Additionally, rising interest rates might limit investment capacity.

Mitigation: The Company has a **proven track record** of creating value through this model, with a trained **team managing equity transactions** and structuring financing packages with partners. Investors engagement ensure ongoing demand for Ørsted's portfolio.

Environmental Risks | Climate Risks (ER1)

World's climate change presents both risks and advantages for the Company. With projections suggesting an **alarming trajectory** surpassing the 1.5ºC threshold, there is a **potential for severe and recurrent catastrophic events**. This has the potential to not just damage the earth but also impact the Company's operational assets.

Figure 54: Policies and legislation in 2023

Policies and legislation in 2023

EU **Net-zero Industry Act**
Strengthen the European manufacturing capacity of net-zero technologies

DK / BE / NL / DE / NO / FR / IR / SE / LU / EU
North Sea Action Agenda
Integrated energy system by 2050, a sustainable and resilient supply chain in Europe, and a better balance between energy and nature in the North Sea

UK **Energy Security Plan**
Compliment British Energy Security Plan from 2022

UK **Fuel EU Maritime and ReFuel EU**
Require heavy transport energy consumers to decarbonise their energy supply with a minimum obligation for green fuels, such as e-methanol and e-ammonia

Selected targets and initiatives in previous years

EU **Renewable Energy Directive**
Sets an overall renewable energy target of at least 42.5 % binding at EU level by 2030, aiming for 45%

US **Inflation Reduction Act**
Tax credits to incentivise investment in renewable energy, P2X, and energy storage in the US

UK **British Energy Security Strategy**
Up to 50 GW installed offshore wind capacity by 2030

DK / BE / NL / DE **Esbjerg declaration (North Sea)**
65 GW installed offshore wind capacity by 2030
20 GW renewable hydrogen production capacity by 2030
150 GW installed offshore wind capacity by 2050

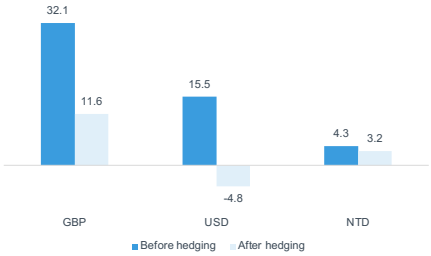
TW **Offshore wind capacity build-out target**
20 GW installed offshore wind capacity by 2035

KR **Green New Deal**
12 GW installed offshore wind capacity by 2030

European Wind Power Action Plan
Help maintain a healthy and competitive wind energy supply chain

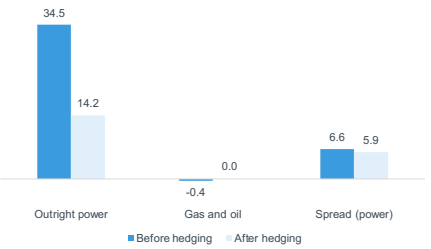
Source: Company data

Figure 55: Currency exposure 2024-2028



Source: Company data

Figure 56: Energy exposure 2024-2026



Source: Company data

Mitigation: Ørsted **provides green power sources** – improving its competitiveness – to promote the adoption of environmentally **sustainable practices**. The Company concurrently advocates for **ambitious renewable targets** with public authorities and regulatory bodies. Absorbing these risks into investment business cases could **help prevent potential asset stranding or devaluation**.

Political, Regulatory, and Legal Risks | Legal Compliance (PRL1)
Serious penalties may arise from the failure to comply with legal risks, particularly in the areas of: a) tax law as the Company runs under varied tax systems; b) financial regulation that covers its operations; and c) tender law – goods, works, and services are subject to EU rules. Furthermore, these risks will **disturb sourcing procedures**, potentially leading to deferrals in project timelines.
Mitigation: Ørsted **adheres to**: a) a tax oversight structure that is harmonized with OECD recommendations; b) stringent policies, training, and procedures; and c) both training and practical lessons for procurement teams and for the accurate application of tender documents, respectively.

Political, Regulatory, and Legal Risks | Regulatory Intervention (PRL2)
Recent increases in European energy prices have led regulators to introduce energy **price caps** and taxes on unexpected windfall profits. The 'Electricity Generator Levy' – effective since 2023 until 2028 – imposes a **supplementary 45% levy on revenue** above GBP75/MWh in the UK. Regulations principally **disrupt** electricity generators involved in the green power production of solar PV, wind, and nuclear. This presents **potential risks to the Company's revenue streams** that are partly offset by fixed-price contracts and German subsidies.
Mitigation: The Company conserves **a dynamic exchange** with governments in the markets where its operations are conducted.

Market Risks | Competition (MR1)
Major oil companies and utilities have started to **venture into the promptly growing** renewable energy market, fuelled by government guidelines (Figure 54), corporate initiatives for sustainability, and rising interest. In offshore wind, competitive **auction mechanisms** are fostering innovation. Mature markets are prioritising the integration of systems, whereas developing markets are concentrating on diminishing costs and employment opportunities. Lately, this has resulted in **bigger pricing complexities**, as contracts are being granted at elevated rates.
Mitigation: The Company continues to exploit the gains of its portfolio's **economies of scale** and tap into the acquired expertise from previous projects to strength supply chain solutions and cut expenses. Yet, **affiliations** have also been established in all of Ørsted's operational regions.

Market Risks | Cost Inflation and Supply Chain (MR2)
Delays and budget overruns within the Company's projects may arise from supply chain bottlenecks, particularly when there is a scarcity of suppliers equipped to fulfil future needs, or from sudden spikes in prices of crucial commodities related to **trade restrictions**.
Mitigation: The Company applies a **hedging programme** for materials like steel to address cost inflation. Moreover, Ørsted has secured volume **agreements** and long-term vessel **supply contracts**, employing stringent rules to effectively handle credit and counterparty risks. Insights gained from recent projects in the US have reshaped the operational model of the Company.

Market Risks | Currencies and Energy Prices (MR3)
The Company's exposure to power price risk is influenced by **the sale of energy in different geographic regions** – that can **result in unanticipated fluctuation** in its

earnings and liquidity. In addition, Ørsted manages currency exposure, especially in GBP, USD, and NTD, stemming from its offshore farms. Assuming no other changes appear, if the GBP/DKK exchange rate increases by 10%, there will be a DKK1.2bn reward during 2024-2028 (Figure 55 and Figure 56).

Mitigation: The Company's negotiations **combine long-term CPPAs**. Investments, divestments, as well as certificates and hedged energy are secured through financial instruments.

Financial Risks | Inflation and Interest Rates (FR1)

In a volatile macroeconomic setting, the Company's revenue from operational, under development, or awarded assets **tends to decline with increasing inflation rates**. Approximately half of its income for the 2024-2030 period relies on contracts **tied to inflation**. Ørsted's farm-down model is negatively affected by these dynamics.

Mitigation: The Company strives to **match assets and liabilities by aligning their maturities and currencies**. However, there is an exception for projects completed in Taiwan and the US – where duration-fixed-rate debt is used for matching purposes instead. **Interest rate swaps before securing financing** are used by Ørsted in new geographies.

Risk Assessment

Sensitivity Analysis | Critical inputs of the DCF method, such as the terminal growth rate ('g') and WACC, can influence the Company's share value. In **the author's base case, these rates are determined to be 2.66% and 5.39%**, respectively.

Concerning g, as this rate rises, **its impact on PT becomes higher**. As a result, the investment **recommendation would shift to a REDUCE if g drops by 0.10%p and to a BUY if it increases by 0.30%p** (*ceteris paribus*).

Conversely, as WACC increases, **its impact on PT drops** – a non-linear correlation between the Company's price target and the discount rate is verified. The investment **would shift to a REDUCE if WACC increases by 0.10%p and to a BUY if it drops by 0.30%p** (ceteris paribus) (Figure 57 and Appendix 28).

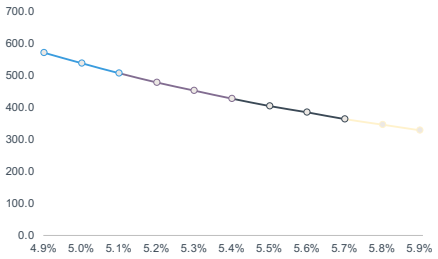
Scenario Analysis | The scenario analysis was assessed under three conditions. The grey scenario anticipates a 0.3% rise in the cost of debt, leading to a share price of DKK404.84 – **a 6% decrease from the DKK429.35 PT**. In this particular scenario, we could verify a downgrade in the Company's credit rating or even stricter financial circumstances. A **REDUCE recommendation** would also be validated if the offshore average growth price was 0.11%. The average grey output is DKK422.38 (Figure 58 and Appendix 29).

The blue scenario assumes a 0.85% decrease in the cost of debt, leading to a share price of DKK510.62 – **an upside of 30%** compared to the closing price. In this case, we could verify a **great green expansion**, accompanied by efficient processes and the development of grid systems and infrastructure. A **BUY recommendation** would also be validated if the offshore average growth price was 0.14%. The average blue output is DKK538.63 (Table 16).

Monte Carlo Simulation | To complement the above tests, Oracle's Crystal Ball was used to run a Monte Carlo simulation (Figure 59), **stressing variations in the long-run terminal growth rate** (Appendix 30). This variable follows a **normal** distribution with mean and standard deviation values – 2.08% and 0.41%, respectively – **based on GDP growth past data**.

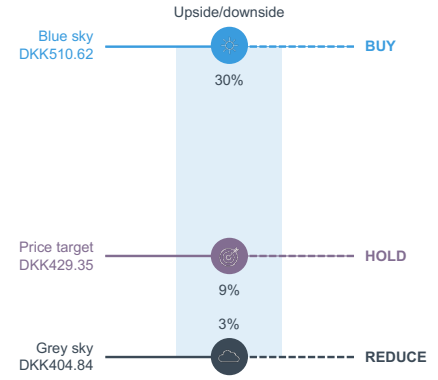
After 10,000 iterations, it was reached a mean **output of DKK434.37/sh.**, in line with the base case PT (DKK5.02 minor variance). Moreover, there is a **35.75% likelihood**

Figure 57: PT (DKK/sh.) sensitivity to WACC (%)



Source: Author analysis

Figure 58: Blue/grey scenarios



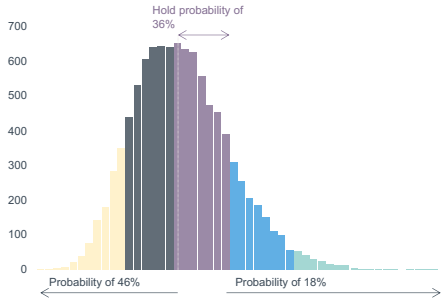
Source: Author analysis

Table 16: Scenario analysis summary

Variable	Blue sky scenario	Base scenario	Grey sky scenario
WACC	5.09%	5.39%	5.50%
Cost of debt	3.75%	4.60%	4.90%
Offshore average growth price	0.14%	0.12%	0.11%
Price, DKK	510.62	429.35	404.84
Upside/downside	30%	9%	3%
Recommendation	BUY	HOLD	REDUCE

Source: Author analysis

Figure 59: Monte Carlo simulation



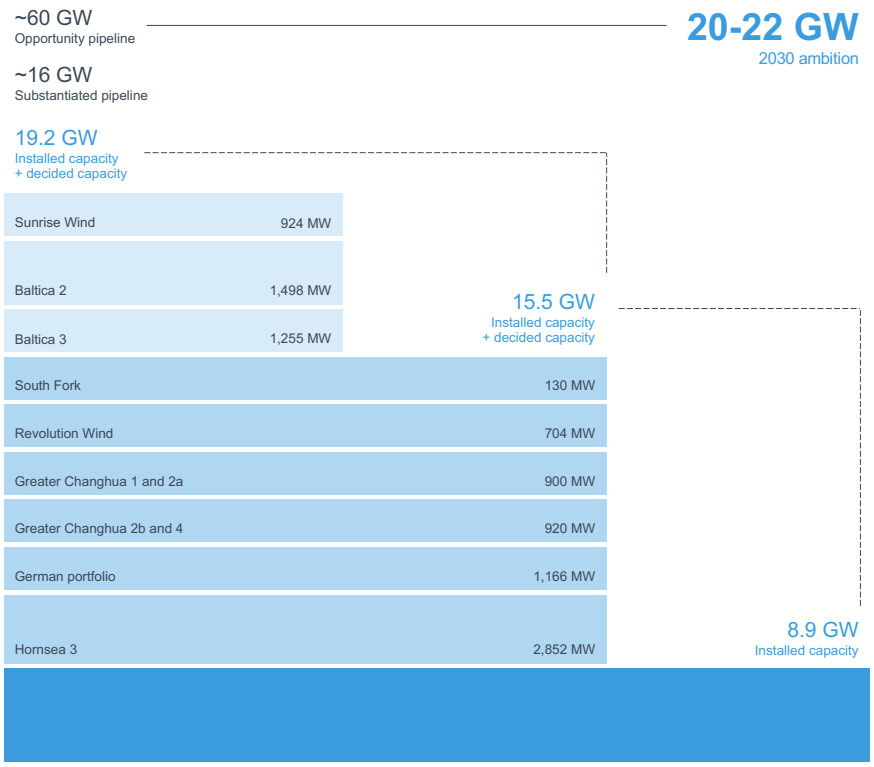
Source: Author analysis

of achieving a recommendation consistent **with the author's view**. Of the remaining 64.25%, almost 70% indicates a SELL/REDUCE outcome.

The provided analysis shows the **unpredictable nature of the renewables**.

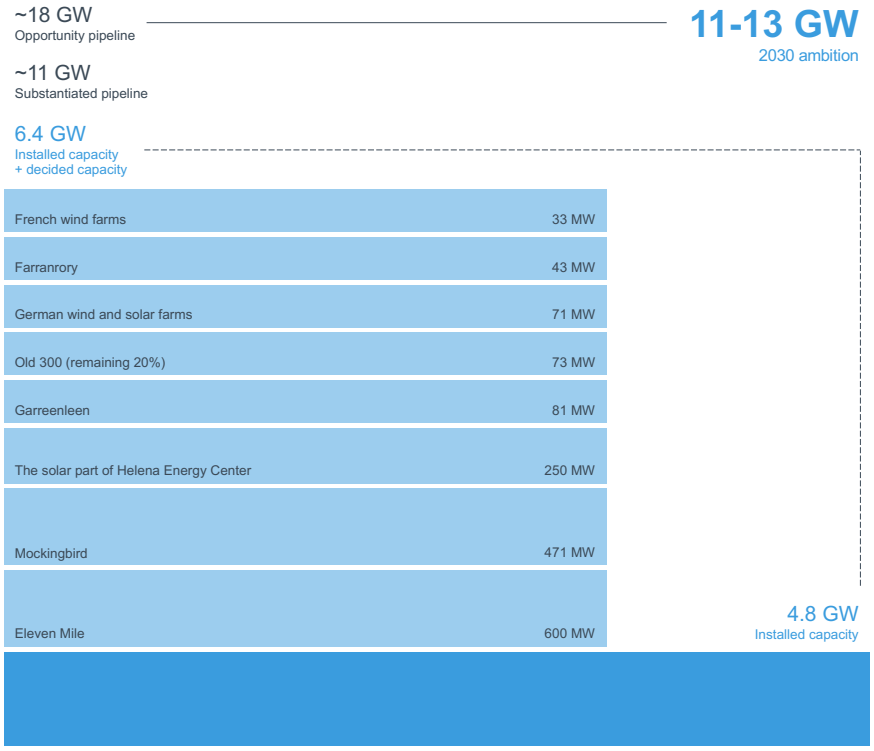
Appendices

Appendix 1: Offshore wind build-out plan



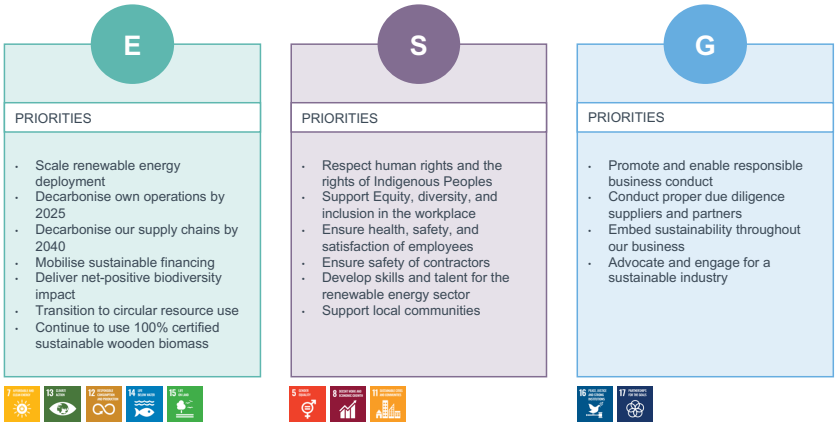
Source: Company data

Appendix 2: Onshore wind build-out plan



Source: Company data

Appendix 3: ESG top priorities



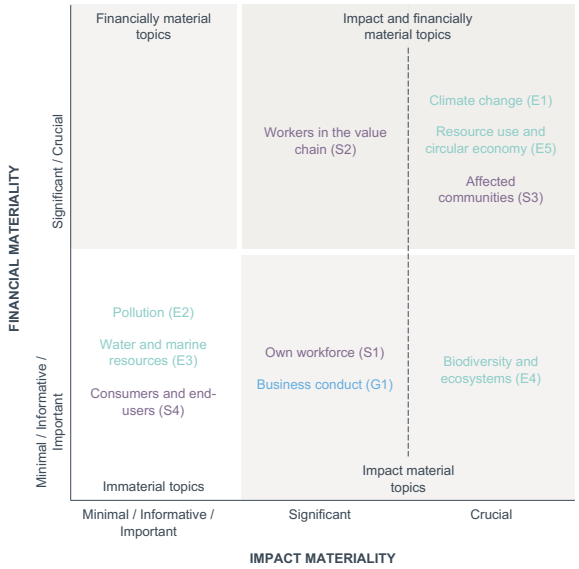
Source: Company data

Appendix 4: ESG ratings

Rating agency	Score	Benchmark
CDP A LIST 2022 CLIMATE	A	**Climate:** Highest possible rating for five consecutive years
CDP DISCLOSURE INSIGHT ACTION	A-	**Water:** Awarded the score 'A-' in 2023
MSCI ESG RATINGS AAA	AAA	Highest possible rating for six consecutive ratings
SUSTAINALYTICS ESG INDUSTRY TOP RATED	17.2 (low risk)	Assessed as 'low risk' and placed as no. 1 among direct utility peers measured by market cap
Corporate ESG Performance Prime ISS ESG	A-	Ranked in 1st decile among electric utilities
PLATINUM TOP 1% 2022 ecovadis Sustainability Rating	78	Platinum Medal for being among top 1% of companies assessed by Eco Vadis

Source: Company data

Appendix 5: Double materiality assessment outcome



Source: Company data

Appendix 6: Stakeholder engagement

	How engagement is organised	Purpose of engagements	Examples of outcomes from the engagements
Employees	• Employment relations and occupational health and safety representation • Inclusion networks • Employee-elected board members • Personal development dialogues • Surveys and workplace assessments	• Including employees' perceptions and experiences • Contributing to a sustainable workplace and working life	• Internal policy updates Improvement and action plans • Communications from management • Global initiatives and campaigns
Corporate customers	• Customer support and guidance • Periodic reviews • Business partner due diligence	• Building trust • Providing sustainable solutions • Enabling customers to achieve their targets	• Product/service improvements • Adaptation of marketing strategies
Suppliers	• Supplier due diligence • Workshops and industry collaborations • Human rights and on-site assessments	• Compliance with our code of conduct • Promoting responsible sourcing, incl. of minerals and metals • Protecting human and labour rights of workers • Ensuring a respectful working environment • Decarbonising our supply chain	• Streamlined supplier expectations • Supplier improvement plans • Informed selection of suppliers • Test pilots and early offtake agreements on low-carbon solutions
Investors	• ESG ratings • Investor calls, questionnaires, and emails • Periodic investor updates • Capital markets days	• Understanding expectations to sustainability • Attracting responsible investors • Enhancing transparency	• ESG rating improvement plans • Responses to investor queries • Adapted internal communication on sustainability practices
Governments and regulators	• Direct dialogue with policymakers • Answering public consultations • White papers, programmes, and studies	• Ensuring regulatory compliance • Promoting a sustainable build-out • Addressing climate-related transition risks and opportunities	• Aligning business model and strategy • Value creation and risk mitigation from compliance
Civic and non-profit organisations	• Collaboration on community projects • Partnerships with NGOs • Contributions to research projects	• Contributing to local initiatives • Addressing concerns of communities • Pooling efforts to decarbonise our supply chain	• Site-specific initiatives on e.g. biodiversity or community development • Alignment of projects with best practice
Industry and Sustainability associations	• Joint initiatives and programmes • Inputs into strategic directions • Workshops and knowledge sharing	• Enabling the build-out of renewable energy • Enabling the industry to engage policymakers • Developing industry standards on sustainability • Working to decarbonise hard-to-abate materials • Understanding views of value chain workers' representatives	• Alignment on sustainability practices and measurement standards • Design of value chain workers initiatives
Local communities	• Public meetings and consultations • Community liaison officers and project staff • Partnerships for community benefits	• Addressing community concerns, questions, and feedback • Building trust and community support • Ensuring community benefits	• Design of community benefits • Support of local projects

Source: Company data

Appendix 7: ESG key figures

Data point	Unit	Target	2019	2020	2021	2022	2023	Trend
Environmental								
Green share of energy generation	%	99 (2025)	86	90	90	91	93	
Coal used in thermal heat and poer generation	Thousand tonnes	0 (2025)	588	629	803	996	546	
Certified sustainable wooden biomass sourced	%	100 (ongoing)	96	100	100	100	100	
Electric vehicles in the company vehicle fleet	%	100 (2025)	21	38	41	51	65	
GHG intensity (scope 1 and 2)	g CO2e/kWh	6 (2030)	65	58	58	60	38	
GHG intensity (scope 1, 2 and 3)	g CO2e/kWh	75 (2030)	214	162	165	147	80	
Wind turbine blades to landfill	Number	0 (ongoing)	0	0	0	1	0	
Social								
Employee satisfaction	Index 0-100	Top 25%	77	78	77	76	76	
Employee loyalty	Index 0-100	-	85	86	85	85	84	
Turnover rate	%	-	11.6	8.4	10.6	11.7	9.6	
All employees (gender with lowest representation)	%	40 (2030)	31	30	31	33	34	
Total recordable injury rate (TRIR)	Injuries per million hours worked	2.5 (2025)	4.9	3.6	3.0	3.1	2.8	
Lost-time injury frequency (LTIF)	Injuries per million hours worked	-	1.0	1.7	1.3	1.6	1.4	
Governance								
Whistleblower cases	Number	-	3	4	5	8	18	
Employees who have completed a course in good business conduct	%	-	96	70	90	84	87	

Source: Company data

Appendix 8: Group executive team

Name	Resident	Born	Appointed	Position	Education
Mads Nipper	Denmark	1966	2021	Group President and CEO	MSc in International Business
Rasmus Errboe	Denmark	1979	2022	Interim CFO	MA (Law); MBA
Henriette Ellekrog	Denmark	1966	2019	Executive Vice President and CHRO	MA, (Cand.ling.merc)
David Hardy	United States	1971	2022	Executive Vice President and CEO of Region Americas	BSc in Mechanical Engineering; MBA
Per Kristensen	Taiwan	1967	2022	Senior Vice President and President of Region APAC	MSc in Engineering
Olivia Breese	United Kingdom	1981	2022	Senior Vice President, Interim CEO of Region Europe and Head of P2X	MA (Oxon); LLM degree
Andrew Brown	United Kingdom	1962	2023	Interim COO and Member of the Board of Directors	BA in Engineering Science (Hons)
Varun Sivaram	United States	1989	2023	Strategy, Innovation, Portfolio & Partnerships	PhD in Condensed Matter Physics; BSc in Engineering Physics
Ingrid Reumert	Denmark	1976	2022	Senior Vice President and Head of Global Stakeholder Relations	MSc in Political Science
Anders Hansen	Denmark	1974	2022	Senior Vice President and Head of Legal	MA (Law)

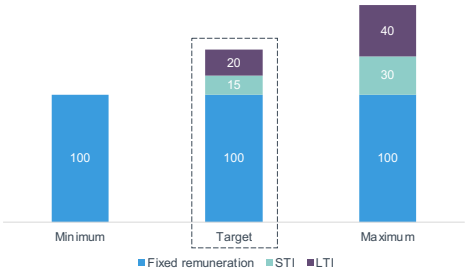
Source: Company data

Appendix 9: Board of directors

Name	Resident	Born	Joined	Independent	# Ørsted shares, 31 Dec. 2023
Thomas Andersen	Denmark	1955	2014	Elected by the general meeting; Independent	1,350
Lene Skole	Denmark	1959	2015	Elected by the general meeting; Independent	2,181
Annica Bresky	Sweden	1975	2023	Elected by the general meeting; Independent	102
Andrew Brown	United Kingdom	1962	2023	Elected by the general meeting; Not independent (Interim COO of Ørsted)	-
Jørgen Kildahl	Norway	1963	2018	Elected by the general meeting; Independent	-
Julia King	United Kingdom	1954	2021	Elected by the general meeting; Independent	-
Peter Korsholm	Denmark	1971	2017	Elected by the general meeting; Independent	4,500
Dieter Wemmer	Switzerland	1957	2018	Elected by the general meeting; Independent	3,000
Beenny Gøbel	Denmark	1976	2022	Elected by the employees; Not independent	1,087
Leticia Mandiola	Chile	1994	2022	Elected by the employees; Not independent	-
Alice Vallienne	France	1994	2022	Elected by the employees; Not independent	-
Anne Yde	Denmark	1983	2022	Elected by the employees; Not independent	-

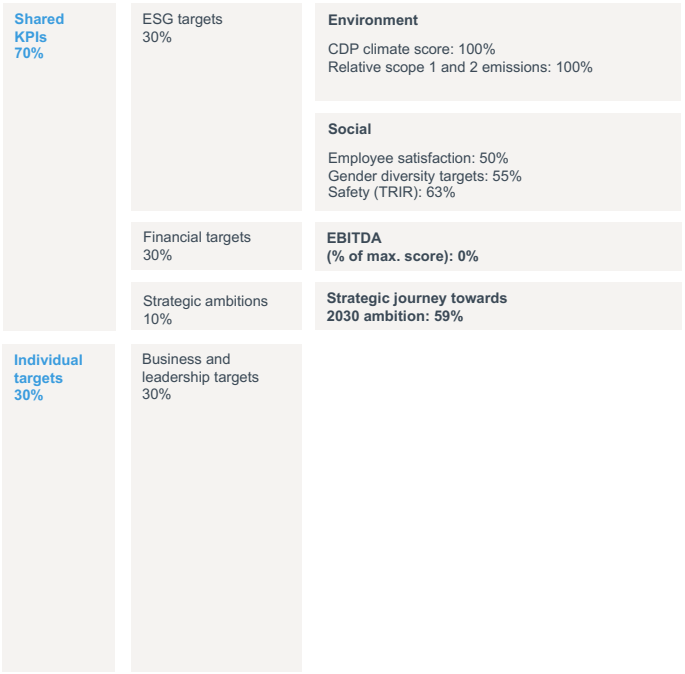
Source: Company data

Appendix 10: STI and LTI payout scenarios performance



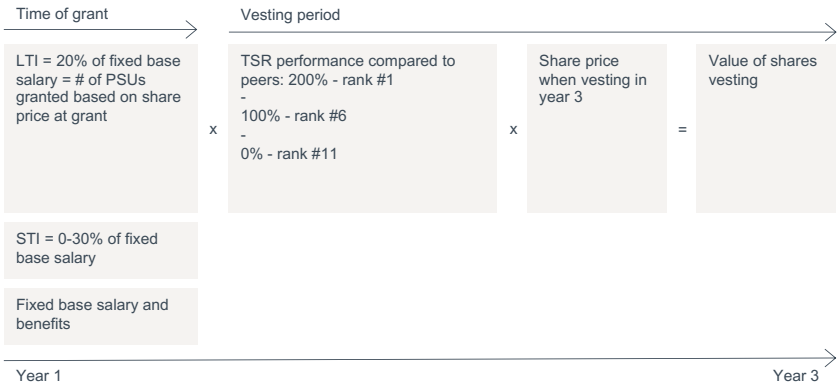
Source: Company data

Appendix 11: Performance of the executive board



Source: Company data

Appendix 12: Remuneration structure and timing



Source: Company data

Appendix 13: IEA renewable energy procurement and policy categories

Type	Name	Primary driver
Policy-driven	Utility-owned project	State-owned utility investments for cost recovery or obligation to meet targets
	Fixed tariffs and premiums	Administratively set tariffs offered to developers
	Competitive auctions	Government solicitations for power using tenders with competitively set tariffs
	Tax credits	Reduced tax liability
Market-driven	Unsolicited bilateral contracts	Bilaterally negotiated contract between a developer and utility
	Merchant	Revenues from the wholesale market
	Corporate PPA	Bilaterally negotiated contract between a developer and end user
	Green certificates	Revenues from the wholesale and green certificates market

Source: IEA

Appendix 14: SARD approach

SARD Approach

						Variables								SARD	
Ticker	Company name	Market cap, DKKbn	Rank	ROE, %	Rank	Net debt/EBIT, x	Rank	Revenue growth, %	Rank	EBIT margin, %	Rank	SARD	Rank
ORSTED.CO	**Ørsted A/S**	**162.713**	**11**	**-25.94%**	**17**	**-3.92**	**17**	**-30.73%**	**17**	**-22.53%**	**17**	**0**	
ENEL.MI	Enel SpA	445.830	3	12.00%	5	8.25	4	3.80%	8	11.66%	11	48	13
ENGI.PA	Engie SA	267.597	5	7.35%	9	4.60	11	-12.04%	12	7.77%	12	30	6
IBE.MC	Iberdrola S.A.	492.452	2	8.00%	7	6.16	7	-8.55%	11	18.44%	10	42	10
EDP.LS	EDP - Energias de Portugal S.A.	114.343	12	6.01%	10	5.86	8	-21.54%	15	18.91%	9	27	4
EDPR.LS	EDP Renewables S.A.	99.212	13	2.48%	13	5.43	9	-5.51%	10	48.88%	2	36	8
SSE.L	SSE plc	156.130	11	-1.11%	15	40.62	1	43.62%	2	1.53%	16	34	7
CNA.L	Centrica plc	58.864	15	92.82%	1	-0.33	16	11.44%	6	25.62%	5	44	12
RWE.DE	RWE Aktiengesellschaft	169.897	10	4.38%	11	0.86	13	-25.64%	16	19.70%	8	21	1
EOAN.DE	E.ON SE	230.645	7	2.28%	14	12.01	2	-19.00%	14	2.65%	14	28	5
FORTUM.HE	Fortum Oyj	76.102	14	-24.35%	16	0.87	12	-13.67%	13	27.58%	4	26	3
VWS.CO	Vestas Wind Systems A/S	177.890	8	2.53%	12	0.28	14	6.19%	7	2.19%	15	23	2
NGG	National Grid plc	430.598	4	26.38%	2	8.01	5	18.61%	4	24.33%	6	58	14
NEE	NextEra Energy Inc.	779.607	1	17.72%	4	6.65	6	34.16%	3	37.75%	3	62	15
EXC	Exelon Corporation	244.061	6	9.04%	6	9.83	3	13.89%	5	20.39%	7	52	13
VER.VI	Verbund AG	173.540	9	20.20%	3	0.12	15	-1.97%	9	103.03%	1	42	10
ANA.MC	Acciona S.A.	43.471	16	7.90%	8	5.05	10	52.04%	1	7.35%	13	41	9

Source: Author analysis

Appendix 15: Financial statement assumptions

Assumptions

Financial statement	Item	Description/based on
Income statement	Revenue	
	Operational segments	Company's installed capacity projections through 2030
	Other activities/eliminations	2018-23 CAGR, considering the nature of this segment
	Cost of sales	Historical sales growth
	Employee costs	Average employee number growth
	Depreciation and amortisation	Last year PP&E/intangibles total amount
	Financial income	Historical sales growth
	Financial expenses	Historical total financial debt growth
	Income tax	Historical effective tax rate
Balance sheet	Inventories	Historical days in inventory
	Trade receivables	Historical collection period
	Trade payables	Historical payables period
	Contract assets	Historical sales growth
	Contract liabilities	Historical sales growth
	Capex	Company's projections towards 2030
	Financial debt	Historical PP&E growth

Source: Author analysis

Appendix 16: Balance sheet forecast

Balance sheet, DKKm	2019	2020	2021	2022	2023	2024E	2025F	2026F	2027F	2028F	FY2023 % Assets	2024E % Assets	2028F % Assets
Intangible assets	**672**	**639**	**1,543**	**4,029**	**3,426**	**3,538**	**3,663**	**3,800**	**3,891**	**3,942**	**1.2%**	**1.2%**	**1.0%**
Property, plant and equipment	**106,013**	**121,610**	**161,396**	**177,665**	**179,769**	**193,505**	**207,619**	**222,150**	**234,332**	**244,388**	**63.9%**	**64.2%**	**61.6%**
Investments in associates and joint ventures	497	555	572	772	960	520	599	715	706	713	0.3%	0.2%	0.2%
Receivables from associates and joint ventures	-	-	-	-	77	-	-	-	-	-	0.0%	0.0%	0.0%
Other securities and equity investments	217	209	221	182	167	163	160	157	153	150	0.1%	0.1%	0.0%
Derivatives		3,023	2,716	1,804	1,356	2,004	2,243	2,514	2,820	3,167	0.5%	0.7%	0.8%
Deferred tax	6,847	6,784	13,281	13,719	8,192	11,645	13,035	14,607	16,388	18,407	2.9%	3.9%	4.6%
Other receivables	1,713	1,925	2,492	3,243	3,134	2,953	3,305	3,704	4,155	4,667	1.1%	1.0%	1.2%
Other non-current assets	**9,274**	**12,496**	**19,282**	**19,720**	**13,886**	**17,286**	**19,343**	**21,696**	**24,222**	**27,105**	**4.9%**	**5.7%**	**6.8%**
Non-current assets	**115,959**	**134,745**	**182,221**	**201,414**	**197,081**	**214,329**	**230,625**	**247,646**	**262,445**	**275,434**	**70.1%**	**71.1%**	**69.5%**
Inventories	14,031	14,739	15,998	14,103	10,539	10,775	12,061	13,515	15,163	17,031	3.7%	3.6%	4.3%
Derivatives	7,740	3,086	14,078	23,433	10,473	15,306	17,133	19,199	21,539	24,193	3.7%	5.1%	6.1%
Contract assets	739	30	2	408	802	405	453	508	570	640	0.3%	0.1%	0.2%
Trade receivables	8,140	6,732	9,565	12,701	11,107	8,622	9,651	10,815	12,133	13,628	4.0%	2.9%	3.4%
Other receivables	5,253	3,720	14,815	20,289	10,530	14,796	16,562	18,559	20,821	23,387	3.7%	4.9%	5.9%
Receivables from associates and joint ventures	-	-	-	-	74	74	74	74	74	74	0.0%	0.0%	0.0%
Income tax	346	852	1,200	419	483	745	833	934	1,048	1,177	0.2%	0.2%	0.3%
Securities	16,552	25,173	21,228	25,197	29,902	29,902	29,902	29,902	29,902	29,902	10.6%	9.9%	7.5%
Cash	7,148	6,178	9,943	16,178	10,145	6,594	7,545	3,631	8,600	11,095	3.6%	2.2%	2.8%
Current assets	**59,949**	**60,510**	**86,829**	**112,728**	**84,055**	**87,220**	**94,215**	**97,138**	**109,851**	**121,127**	**29.9%**	**28.9%**	**30.5%**
Assets classified as held for sale	**16,952**	**1,464**	**1,335**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.0%**	**0.0%**	**0.0%**
Assets	**192,860**	**196,719**	**270,385**	**314,142**	**281,136**	**301,549**	**324,839**	**344,784**	**372,296**	**396,561**	**100.0%**	**100.0%**	**100.0%**
Share capital	4,204	4,204	4,204	4,204	4,204	4,204	4,204	4,204	4,204	4,204	1.5%	1.4%	1.1%
Reserves	413	(1,956)	(24,778)	(26,467)	(10,251)	(2,196)	(7,622)	(27,103)	(31,261)	(43,454)	-3.6%	-0.7%	-11.0%
Retained earnings	68,465	74,294	79,391	88,331	62,829	72,025	82,723	96,369	107,015	121,173	22.3%	23.9%	30.6%
Proposed dividends	-	4,834	5,255	5,675	-	-	-	5,969	6,264	6,558	0.0%	0.0%	1.7%
Equity attributable to shareholders in Ørsted A/S	**73,082**	**81,376**	**64,072**	**71,743**	**56,782**	**74,034**	**79,304**	**79,439**	**86,222**	**88,481**	**20.2%**	**24.6%**	**22.3%**
Hybrid capital	13,232	13,232	17,984	19,793	19,103	19,103	19,103	19,103	19,103	19,103	6.8%	6.3%	4.8%
Non-controlling interests	3,248	2,721	3,081	3,996	1,906	1,906	1,906	1,906	1,906	1,906	0.7%	0.6%	0.5%
Equity	**89,562**	**97,329**	**85,137**	**95,532**	**77,791**	**95,043**	**100,313**	**100,448**	**107,231**	**109,490**	**27.7%**	**31.5%**	**27.6%**
Deferred tax	3,371	2,187	5,616	7,414	3,439	5,331	5,968	6,687	7,502	8,427	1.2%	1.8%	2.1%
Pensions	10	9	8	8	9	9	9	9	9	9	0.0%	0.0%	0.0%
Provisions	12,053	12,466	15,116	19,113	16,899	16,981	19,007	21,299	23,896	26,840	6.0%	5.6%	6.8%
Lease liabilities	4,728	4,455	6,812	7,697	7,618	7,618	7,618	7,618	7,618	7,618	2.7%	2.5%	1.9%
Issued bonds	32,804	32,796	30,830	54,368	70,589	67,599	72,530	77,606	81,861	85,374	25.1%	22.4%	21.5%
Bank loans	3,235	1,578	672	6,083	8,647	9,308	9,987	10,686	11,271	11,755	3.1%	3.1%	3.0%
Derivatives		1,456	17,464	24,121	13,763	17,998	20,146	22,575	25,327	28,447	4.9%	6.0%	7.2%
Contract liabilities	3,762	3,650	3,230	3,085	3,297	3,254	3,642	4,081	4,578	5,143	1.2%	1.1%	1.3%
Tax equity liabilities	4,563	6,780	13,358	14,490	13,610	13,610	13,610	13,610	13,610	13,610	4.8%	4.5%	3.4%
Other payables	469	374	4,682	7,363	6,273	6,019	6,738	7,550	8,470	9,514	2.2%	2.0%	2.4%
Non-current liabilities	**64,995**	**65,751**	**97,788**	**143,742**	**144,144**	**147,727**	**159,253**	**171,721**	**184,143**	**196,737**	**51.3%**	**49.0%**	**49.6%**
Provisions	538	1,388	764	585	15,955	1,259	1,409	1,579	1,772	1,990	5.7%	0.4%	0.5%
Lease liabilities	604	599	720	569	808	808	808	808	808	808	0.3%	0.3%	0.2%
Issued bonds	570	2,027	3,847	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Bank loans	231	365	15,646	2,830	384	413	443	475	501	522	0.1%	0.1%	0.1%
Derivatives	6,958	4,862	32,325	33,438	8,449	24,074	26,947	30,197	33,877	38,051	3.0%	8.0%	9.6%
Contract liabilities	784	480	2,440	2,269	2,785	2,552	2,856	3,201	3,591	4,033	1.0%	0.8%	1.0%
Trade payables	10,832	9,742	20,231	20,641	14,915	14,631	16,376	18,351	20,588	23,125	5.3%	4.9%	5.8%
Tax equity liabilities	632	1,187	1,206	1,903	3,397	3,397	3,397	3,397	3,397	3,397	1.2%	1.1%	0.9%
Other payables	4,247	6,082	4,768	7,518	6,225	6,074	6,799	7,619	8,548	9,601	2.2%	2.0%	2.4%
Income tax	4,075	6,220	5,021	5,115	6,283	5,572	6,236	6,989	7,840	8,806	2.2%	1.8%	2.2%
Current liabilities	**29,471**	**32,952**	**86,968**	**74,868**	**59,201**	**58,779**	**65,273**	**72,615**	**80,921**	**90,334**	**21.1%**	**19.5%**	**22.8%**
Liabilities	**94,466**	**98,703**	**184,756**	**218,610**	**203,345**	**206,506**	**224,526**	**244,336**	**265,065**	**287,071**	**72.3%**	**68.5%**	**72.4%**
Liabilities relating to assets classified as held for sale	**8,832**	**687**	**492**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.0%**	**0.0%**	**0.0%**
Equity and liabilities	**192,860**	**196,719**	**270,385**	**314,142**	**281,136**	**301,549**	**324,839**	**344,784**	**372,296**	**396,561**	**100.0%**	**100.0%**	**100.0%**

Source: Company data and author analysis

Appendix 17: Income statement forecast

Income statement (IFRS), DKKm	2019	2020	2021	2022	2023	2024E	2025F	2026F	2027F	2028F	FY2023 % Revenue	2024E % Revenue	2028F % Revenue
Revenue	70,398	50,151	77,673	114,417	79,255	88,614	99,189	111,151	124,699	140,063	100.0%	100.0%	100.0%
Offshore	40,216	34,533	50,791	69,261	58,427	66,131	74,850	84,720	95,890	108,534	73.7%	74.6%	77.5%
Onshore	670	733	995	3,014	2,620	3,403	4,419	5,738	7,452	9,678	3.3%	3.8%	6.9%
Bioenergy & Other	32,816	21,420	32,390	46,243	19,230	20,439	21,725	23,091	24,543	26,086	24.3%	23.1%	18.6%
Other activities/eliminations	(3,304)	(6,535)	(6,503)	(4,101)	(1,022)	(1,358)	(1,805)	(2,398)	(3,187)	(4,235)	-1.3%	-1.5%	-3.0%
Cost of sales	(42,836)	(25,784)	(53,110)	(79,303)	(46,624)	(56,775)	(63,550)	(71,213)	(79,893)	(89,737)	-58.8%	-64.1%	-64.1%
Gross profit	**27,562**	**24,367**	**24,563**	**35,114**	**32,631**	**31,840**	**35,639**	**39,937**	**44,805**	**50,326**	**41.2%**	**35.9%**	**35.9%**
Employee costs and other external expenses	(10,043)	(10,057)	(10,049)	(12,327)	(13,780)	(12,181)	(13,452)	(14,868)	(16,449)	(18,216)	-17.4%	-13.7%	-13.0%
Gain (loss) on disposal of assets	(101)	805	7,920	10,885	5,745	9,049	9,737	10,455	11,080	11,629	7.2%	10.2%	8.3%
Additional other operating income and expenses	1,622	1,412	1,879	(1,729)	(5,824)	(1,902)	(2,129)	(2,386)	(2,677)	(3,007)	-7.3%	-2.1%	-2.1%
Share of profit (loss) in associates and joint ventures	(20)	71	(17)	114	(55)	7	37	28	12	26	-0.1%	0.0%	0.0%
Operating profit (loss) before depreciation, amortisation and impairment losses (EBITDA)	**19,020**	**16,598**	**24,296**	**32,057**	**18,717**	**26,813**	**29,832**	**33,166**	**36,771**	**40,757**	**23.6%**	**30.3%**	**29.1%**
Amortisation, depreciation and impairment losses on intangible assets and property, plant and equipment	(7,432)	(7,588)	(8,101)	(12,283)	(36,570)	(12,136)	(13,630)	(13,979)	(14,943)	(15,747)	-46.1%	-13.7%	-11.2%
Operating profit (loss) (EBIT)	**11,588**	**9,010**	**16,195**	**19,774**	**(17,853)**	**14,677**	**16,202**	**19,187**	**21,828**	**25,010**	**-22.5%**	**16.6%**	**17.9%**
Gain (loss) on divestment of enterprises	(63)	10,831	(742)	331	234	234	234	234	234	234	0.3%	0.3%	0.2%
Share of profit (loss) in associates and joint ventures	2	7	(10)	40	36	36	36	36	36	36	0.0%	0.0%	0.0%
Financial income	7,718	5,779	4,380	15,514	12,379	10,284	11,512	12,900	14,472	16,255	15.6%	11.6%	11.6%
Financial expenses	(8,853)	(8,303)	(6,546)	(18,050)	(13,822)	(15,134)	(16,238)	(17,374)	(18,327)	(19,114)	-17.4%	-17.1%	-13.6%
Profit (loss) before tax	**10,392**	**17,324**	**13,277**	**17,609**	**(19,026)**	**10,097**	**11,745**	**14,983**	**18,244**	**22,422**	**-24.0%**	**11.4%**	**16.0%**
Tax on profit (loss) for the period	(3,101)	(1,776)	(2,390)	(2,613)	(1,156)	(901)	(1,048)	(1,337)	(1,628)	(2,000)	-1.5%	-1.0%	-1.4%
Profit (loss) for the period from continuing operations	**7,291**	**15,548**	**10,887**	**14,996**	**(20,182)**	**9,196**	**10,697**	**13,646**	**16,616**	**20,421**	**-25.5%**	**10.4%**	**14.6%**
Profit (loss) for the period from discontinued operations	**(56)**	**(11)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.0%**	**0.0%**	**0.0%**
Profit (loss) for the period	**7,235**	**15,537**	**10,887**	**14,996**	**(20,182)**	**9,196**	**10,697**	**13,646**	**16,616**	**20,421**	**-25.5%**	**10.4%**	**14.6%**

Source: Company data and author analysis

Appendix 18: Cash flow statement forecast

Cash flow statement, DKKm	2019	2020	2021	2022	2023	2024E	2025F	2026F	2027F	2028F	FY2023 % CFO	2024E % CFO	2028F % CFO
Operating profit (loss) before depreciation, amortisation and impairment losses (EBITDA), IFRS	19,020	16,598	24,296	32,057	18,717	26,813	29,832	33,166	36,771	40,757	65.6%	114.7%	153.7%
Reversal of gain (loss) on divestment of assets	101	(805)	(7,920)	(10,885)	(5,745)	(1,772)	(4,877)	(6,339)	(6,580)	(5,820)	-20.1%	-7.6%	-22.0%
Change in derivatives, business performance adjustments	(1,536)	1,526				-	-	-	-	-	0.0%	0.0%	0.0%
Change in derivatives, other adjustments	(1,040)	411	(2,051)	(8,687)	4,274	(10,193)	(1,367)	(1,547)	(1,752)	(1,987)	15.0%	-43.6%	-7.5%
Change in provisions	727	(772)	(158)	(1,935)	8,454	14,614	(2,177)	(2,462)	(2,789)	(3,163)	29.6%	62.5%	-11.9%
Other items	86	(42)	(262)	(278)	287	-	-	-	-	-	1.0%	0.0%	0.0%
Interest received and similar items	4,094	3,032	3,518	7,985	8,278	10,284	11,512	12,900	14,472	16,255	29.0%	44.0%	61.3%
Interest paid and similar items	(5,143)	(4,862)	(3,985)	(8,548)	(6,894)	(15,134)	(16,238)	(17,374)	(18,327)	(19,114)	-24.2%	-64.7%	-72.1%
Income tax paid	(4,800)	(1,118)	(1,380)	(1,263)	(2,717)	(901)	(1,048)	(1,337)	(1,628)	(2,000)	-9.5%	-3.9%	-7.5%
Cash flows from operating activities before change in net working capital	**11,509**	**13,968**	**12,058**	**8,446**	**24,654**	**23,712**	**15,637**	**17,007**	**20,168**	**24,930**	**86.4%**	**101.4%**	**94.0%**
Change in net working capital	**1,570**	**2,498**	**90**	**3,478**	**3,878**	**(338)**	**1,089**	**1,231**	**1,395**	**1,582**	**13.6%**	**-1.4%**	**6.0%**
Cash flows from operating activities	**13,079**	**16,466**	**12,148**	**11,924**	**28,532**	**23,373**	**16,725**	**18,239**	**21,563**	**26,511**	**100.0%**	**100.0%**	**100.0%**
Purchase of intangible assets and property, plant and equipment	(22,445)	(26,957)	(34,569)	(33,004)	(38,203)	(25,984)	(27,283)	(28,647)	(27,215)	(25,854)	-133.9%	-111.2%	-97.5%
Sale of intangible assets and property, plant and equipment	3,424	123	20,946	24,052	8,189	19,193	20,592	22,034	23,242	24,239	28.7%	82.1%	91.4%
Acquisition of enterprises	(764)	-	(2,431)	(3,406)	-	-	-	-	-	-	0.0%	0.0%	0.0%
Divestment of enterprises	(89)	18,914	(147)	99	(3)	234	234	234	234	234	0.0%	1.0%	0.9%
Acquisition of associates	-	-	-	-	(124)	-	-	-	-	-	-0.4%	0.0%	0.0%
Purchase of other equity investments	-	-	(9)	16	-	-	-	-	-	-	0.0%	0.0%	0.0%
Divestment of other equity investments	(5)	(6)	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Purchase of securities	(20,503)	(19,862)	(8,098)	(9,414)	(18,285)	(22,227)	(14,469)	(13,915)	(14,506)	(16,099)	-64.1%	-95.1%	-60.7%
Sale/maturation of securities	29,452	11,212	11,656	3,780	13,935	4,486	4,486	4,486	4,486	4,486	48.8%	19.2%	16.9%
Change in other non-current assets	-	15	53	(4)	(13)	(10)	(11)	(12)	(14)	(15)	0.0%	0.0%	-0.1%
Transactions with associates and joint ventures	(88)	(19)	(21)	(54)	(247)	(63)	(46)	(85)	(96)	(102)	-0.9%	-0.3%	-0.4%
Dividends received and capital reduction	21	18	29	23	19	23	23	22	24	22	0.1%	0.1%	0.1%
Cash flows from investing activities	**(10,997)**	**(16,562)**	**(12,591)**	**(17,912)**	**(34,732)**	**(24,348)**	**(16,474)**	**(15,884)**	**(13,846)**	**(13,090)**	**-121.7%**	**-104.2%**	**-49.4%**
Proceeds from capital injection	10,174	-	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Proceeds from raising of loans	-	3,406	14,582	37,090	17,584	3,581	15,704	8,401	17,724	9,242	61.6%	15.3%	34.9%
Instalments on loans	(2,043)	(2,398)	(4,435)	(22,595)	(1,580)	2,300	(5,640)	(5,806)	(4,868)	(4,018)	-5.5%	9.8%	-15.2%
Instalments on leases	(664)	(541)	(520)	(582)	(712)	(431)	(577)	(589)	(561)	(576)	-2.5%	-1.8%	-2.2%
Coupon payments on hybrid capital	(556)	(488)	(430)	(529)	(546)	(505)	(501)	(498)	(502)	(520)	-1.9%	-2.2%	-2.0%
Repurchase of hybrid capital	(4,005)	-	(2,971)	(1,945)	(699)	(1,744)	(2,230)	(1,404)	(1,840)	(1,655)	-2.4%	-7.5%	-6.2%
Proceeds from issuance of hybrid capital	4,416	-	7,327	3,693	-	-	-	-	-	-	0.0%	0.0%	0.0%
Paid dividends to shareholders of Ørsted A/S	(4,096)	(4,410)	(4,830)	(5,252)	(5,673)	-	-	-	(5,969)	(6,264)	-19.9%	0.0%	-23.6%
Purchase of own shares	(99)	(58)	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Transactions with non-controlling interests	(462)	(428)	332	1,170	(7,061)	(3,251)	(3,251)	(3,251)	(3,251)	(3,251)	-24.7%	-13.9%	-12.3%
Net proceeds from tax equity partners	1	101	289	(523)	(182)	(182)	(182)	(182)	(182)	(182)	-0.6%	-0.8%	-0.7%
Collateral posted in relation to trading of derivatives			(23,034)	(48,885)	(21,829)	(32,181)	(36,021)	(40,365)	(45,285)	(50,865)	-76.5%	-137.7%	-191.9%
Collateral released in relation to trading of derivatives			17,082	52,143	19,515	29,837	33,398	37,425	41,987	47,160	68.4%	127.7%	177.9%
Restricted cash and other changes					1,448	-	-	-	-	-	5.1%	0.0%	0.0%
Change in collateral related to derivatives	(1,332)	2,691				-	-	-	-	-	0.0%	0.0%	0.0%
Cash flows from financing activities	**1,334**	**(2,125)**	**3,392**	**13,785**	**265**	**(2,576)**	**700**	**(6,269)**	**(2,748)**	**(10,927)**	**0.9%**	**-11.0%**	**-41.2%**
Cash flows from discontinued operations	**174**	**966**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.0%**	**0.0%**	**0.0%**
Total net change in cash and cash equivalents	**3,590**	**(1,255)**	**2,949**	**7,797**	**(5,935)**	**(3,550)**	**951**	**(3,914)**	**4,969**	**2,494**	**-20.8%**	**-15.2%**	**9.4%**
Cash and cash equivalents at the beginning of the period	2,663	6,459	5,210	8,614	16,175	10,144	6,594	7,545	3,631	8,600	56.7%	43.4%	32.4%
Cash flows for the period from assets classified as held for sale	-	-	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Other change in cash and cash equivalents	(17)	-	-	-	-	-	-	-	-	-	0.0%	0.0%	0.0%
Exchange rate adjustments of cash and cash equivalents	223	6	455	(236)	(96)	-	-	-	-	-	-0.3%	0.0%	0.0%
Cash and cash equivalents at the end of period	**6,459**	**5,210**	**8,614**	**16,175**	**10,144**	**6,594**	**7,545**	**3,631**	**8,600**	**11,095**	**35.6%**	**28.2%**	**41.8%**

Source: Company data and author analysis

Appendix 19: Discounted cash flow approach

FCFF	2024E	2025F	2026F	2027F	2028F
EBIT, DKKm	14,677	16,202	19,187	21,828	25,010
Tax rate (Denmark), %	22%	22%	22%	22%	22%
Non-cash charges, DKKm	12,136	13,630	13,979	14,943	15,747
∆ NWC, DKKm	(338)	1,089	1,231	1,395	1,582
Capex, DKKm	25,984	27,283	28,647	27,215	25,854
Free Cash Flow to the Firm (FCFF), DKKm	**(2,062)**	**(2,104)**	**(934)**	**3,359**	**7,819**

WACC, %	5.39%
g, %	2.66%

PV (FCFF), DKKm	6,713
Terminal value, DKKm	293,948
PV (Terminal value), DKKm	251,096
Enterprise value, DKKm	**257,809**
Total debt, DKKm	82,960
Cash & cash equivalents, DKKm	7,545
Minority interests, DKKm	1,906
Equity value, DKKm	**180,488**
Equity value per share, DKK	**429.35**

Source: Author analysis

Appendix 20: Beta – Pure play method

Beta - Pure play method

Company name	Levered beta	Total debt (2023), DKKm	Market capitalization, DKKm	Tax rate, %	Unlevered beta
Ørsted A/S	**0.65**	**88,046**	**162,713**	**22%**	**0.41**
Enel SpA	0.95	666,164	445,830	25%	0.45
Engie SA	0.94	352,288	267,597	25%	0.47
Iberdrola S.A.	0.57	459,263	492,452	25%	0.34
EDP - Energias de Portugal S.A.	0.55	168,638	114,343	21%	0.25
EDP Renewables S.A.	0.57	53,558	99,212	25%	0.41
SSE plc	0.57	78,822	156,130	19%	0.40
Centrica plc	1.10	35,696	58,864	19%	0.74
RWE Aktiengesellschaft	0.65	87,530	169,897	16%	0.45
E.ON SE	0.63	264,028	230,645	16%	0.32
Fortum Oyj	0.73	44,037	76,102	20%	0.50
Vestas Wind Systems A/S	1.25	3,387	198,798	22%	1.23
National Grid plc	0.29	295,737	430,598	25%	0.19
NextEra Energy Inc.	0.51	503,692	779,607	21%	0.34
Exelon Corporation	0.61	302,775	244,061	21%	0.31
Verbund AG	0.72	17,947	173,540	24%	0.67
Acciona S.A.	0.63	81,056	43,471	25%	0.26
Median					0.41
Mean					0.46

Source: Author analysis

Appendix 21: Damodaran's approach correct for cash

Damodaran's approach correct for cash

Industry name	Number of firms	Beta	D/E ratio	Effective tax rate	Unlevered beta	Cash/firm value	Unlevered beta corrected for cash
Green & renewable energy	17	1.11	141.41%	4.39%	0.54	3.42%	0.56
Ørsted A/S (Levered beta)							**0.56**

Source: Author analysis

Appendix 22: Adjusted present value approach

APV	2024E	2025F	2026F	2027F	2028F
Free Cash Flow to the Firm (FCFF), DKKm	(2,062)	(2,104)	(934)	3,359	7,819
PV (FCFF), DKKm	(2,062)	(2,104)	(882)	2,998	6,591
PV (Terminal value), DKKm					211,659
Present value of operations, DKKm	**218,261**				

Unlevered WACC, %	5.86%
g, %	2.66%

Interest tax shield, DKKm	1,350	1,449	1,550	1,635	1,705
PV (Interest tax shield), DKKm	1,350	1,449	1,464	1,459	1,437
PV (Terminal value), DKKm					46,160
Present value of interest tax shield, DKKm	**51,969**				

Enterprise value, DKKm	**270,231**
Total debt, DKKm	82,960
Cash & cash equivalents, DKKm	7,545
Minority interests, DKKm	1,906
Equity value, DKKm	**192,910**
Price target, DKK	**458.89**

Source: Author analysis

Appendix 23: Flow to equity

Flow to equity	2024E	2025F	2026F	2027F	2028F
Free Cash Flow to the Firm (FCFF), DKKm	(2,062)	(2,104)	(934)	3,359	7,819
PV (FCFF), DKKm	(2,062)	(2,104)	(882)	2,998	6,591
PV (Terminal value), DKKm					211,659
Present value of operations, DKKm	**218,261**				
Unlevered WACC, %	5.86%				
g, %	2.66%				
Unlevered cost of equity, %	5.25%				
Interest tax shield, DKKm	1,350	1,449	1,550	1,635	1,705
PV (Interest tax shield), DKKm	1,350	1,449	1,473	1,476	1,462
PV (Terminal value), DKKm					46,160
Present value of interest tax shield, DKKm	**52,020**				
Enterprise value, DKKm	**270,281**				
Total debt, DKKm	82,960				
Cash & cash equivalents, DKKm	7,545				
Minority interests, DKKm	1,906				
Equity value, DKKm	**192,960**				
Price target, DKK	**459.01**				

Source: Author analysis

Appendix 24: Relative valuation

Relative valuation

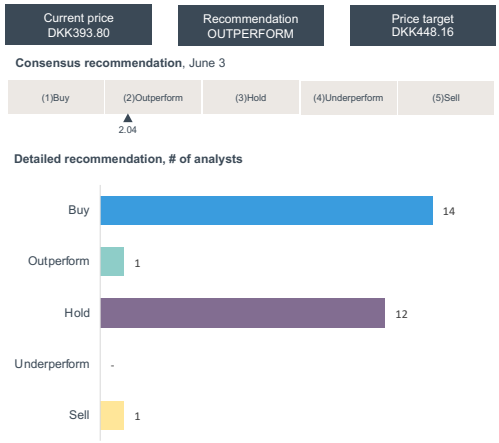
	Company's data							Enterprise value multiples		Price multiples	
Company name	Market capitalization, DKKm	Enterprise value, DKKm	Sales (2023), DKKm	EBITDA (2023), DKKm	EBIT (2023), DKKm	Earnings (2023), DKKm	Book Value of Equity (2023), DKKm	EV/Sales, x	EV/EBITDA, x	P/Sales, x	P/Book Value of Equity, x
Ørsted A/S	**162,713**	**210,700**	**79,255**	**18,717**	**(17,853)**	**(20,182)**	**56,782**	**2.66**	**11.26**	**2.05**	**2.87**
RWE Aktiengesellschaft	169,897	158,313	212,817	70,417	41,921	10,803	235,189	0.74	2.25	0.80	0.72
Vestas Wind Systems A/S	177,890	178,610	15,382	1,126	337	77	3,027	11.61	158.62	1.56	7.80
Fortum Oyj	76,102	94,764	49,997	16,465	13,790	(15,414)	62,863	1.90	5.76	1.52	1.21
EDP - Energias de Portugal S.A.	114,343	179,918	120,705	38,159	22,819	7,465	86,070	1.49	4.71	0.95	1.33
E.ON SE	230,645	189,007	697,961	44,700	18,521	3,397	105,149	0.27	4.23	0.33	2.19
High								11.61	158.62	1.56	7.80
75th percentile								1.90	5.76	1.52	2.19
Mean								**3.20**	**35.11**	**1.03**	**2.65**
Median								1.49	4.71	0.95	1.33
25th percentile								0.74	4.23	0.80	1.21
Low								0.27	2.25	0.33	0.72
Implied enterprise value, DKKm								253,810	657,231		
Net debt, DKKm								69,956	69,956		
Implied market capitalization, DKKm								183,854	587,275	167,861	431,351
Outstanding shares, m								420.38	420.38	420.38	420.38
Implied value per share								**437.35**	**1,397.01**	**399.31**	**1,026.10**

Average implied price, DKK	**418.33**

Source: Author analysis and companies' data

Appendix 25: Consensus recommendation

Company	Analyst	Country	Last rating input	Rating
AlphaValue	Pierre-Alexandre Ramondenc	France	5/3/2024	Sell
ABG Sundal Collier	Daniel Vårdal Haugland	Denmark	6/3/2024	Buy
Bank of America	Peter Bisztyga	UK	1/12/2024	Buy
Barclays Capital	Dominic Nash	UK	1/23/2024	Equal weight
Berenberg	Marc Ip Tat Kuen	UK	1/10/2024	Buy
Bernstein	Deepa Venkateswaran	UK	1/9/2024	Outperform
BNP Paribas Exane	Harry Wyburd	UK	4/11/2024	Neutral
Citigroup	Jenny Ping	UK	5/2/2024	Neutral
Danske Bank	Casper Blom	Denmark	4/19/2024	Buy
Deutsche Bank	James Brand	UK	5/3/2024	Buy
DNB	Helene Kvilhaug Brøndbo	Norway	6/3/2024	Hold
Fearnley Securities	Magnus Solheim	Norway	5/2/2024	Buy
HSBC	Meike Becker	UK	1/15/2024	Buy
Jefferies International	Ahmed Farman	UK	4/8/2024	Hold
JPMorgan	Vincent Ayral	UK	4/23/2024	Neutral
Morgan Stanley	Robert Pulleyn	UK	4/8/2024	Overweight
Morningstar	Tancrede Fulop	Netherlands	1/17/2024	Buy
Nordea	Lars Heindorff	Denmark	1/24/2024	Hold
Nykredit	Klaus Kehl	Denmark	4/19/2024	Hold
Oddo BHF	Louis Boujard	France	1/19/2024	Buy
RBC	Alexander Wheeler	UK	4/18/2024	Sector perform
Redburn	Simon Toyne	UK	4/24/2024	Neutral
Santander	Virginia Sanz	Spain	4/10/2024	Neutral
SEB	Kristian Tornoe	Denmark	4/15/2024	Buy
Sydbank	Jacob Pedersen	Denmark	6/3/2024	Buy
UBS	Sam Arie	UK	5/20/2024	Buy
Wolfe Research	David Paz	US	4/19/2024	Peer perform
Anonymous estimates (1)				



Source: Company data

Appendix 26: Financial analysis

Financial analysis	2019	2020	2021	2022	2023	2024E	2025F	2026F	2027F	2028F
Liquidity ratios										
Current ratio (x)	2.03	1.84	1.00	1.51	1.42	1.48	1.44	1.34	1.36	1.34
Quick ratio (x)	1.56	1.39	0.81	1.32	1.24	1.30	1.26	1.15	1.17	1.15
Cash ratio (x)	0.80	0.95	0.36	0.55	0.68	0.62	0.57	0.46	0.48	0.45
Efficiency ratios										
Fixed assets turnover (x)	0.74	0.44	0.55	0.67	0.44	0.47	0.49	0.52	0.55	0.59
Collection period (DSO) (days)	48.95	54.12	38.29	35.52	54.82	40.63	33.62	33.60	33.59	33.57
Days in inventory (DIO) (days)	119.18	203.64	105.62	69.27	96.46	68.51	65.58	65.54	65.51	65.47
Payables period (DPO) (days)	101.88	145.62	103.00	94.06	139.18	94.97	89.04	89.00	88.95	88.90
Operating cycle (days)	168.13	257.75	143.91	104.79	151.28	109.15	99.20	99.15	99.09	99.04
Cash conversion cycle (days)	66.24	112.13	40.92	10.73	12.10	14.17	10.16	10.15	10.15	10.14
Profitability ratios										
Gross profit margin (%)	39.15%	48.59%	31.62%	30.69%	41.17%	35.93%	35.93%	35.93%	35.93%	35.93%
EBITDA margin (%)	27.02%	33.10%	31.28%	28.02%	23.62%	30.26%	30.08%	29.84%	29.49%	29.10%
EBIT margin (%)	16.46%	17.97%	20.85%	17.28%	-22.53%	16.56%	16.33%	17.26%	17.50%	17.86%
Pretax profit margin (%)	14.76%	34.54%	17.09%	15.39%	-24.01%	11.39%	11.84%	13.48%	14.63%	16.01%
Net profit margin (%)	10.28%	30.98%	14.02%	13.11%	-25.46%	10.38%	10.78%	12.28%	13.32%	14.58%
ROA (%)	3.75%	7.90%	4.03%	4.77%	-7.18%	3.05%	3.29%	3.96%	4.46%	5.15%
ROIC (%)	7.15%	5.24%	9.28%	9.71%	-8.85%	6.64%	6.90%	7.91%	8.48%	9.42%
ROE (%)	8.08%	15.96%	12.79%	15.70%	-25.94%	9.68%	10.66%	13.59%	15.50%	18.65%
Solvency ratios										
Debt to equity (x)	0.41	0.38	0.60	0.66	1.02	0.81	0.83	0.88	0.87	0.89
Debt to assets (x)	0.19	0.19	0.19	0.20	0.28	0.26	0.26	0.26	0.25	0.25
Debt to capital (x)	0.29	0.27	0.37	0.40	0.51	0.45	0.45	0.47	0.47	0.47
Debt to EBITDA (x)	1.94	2.22	2.10	1.97	4.25	2.88	2.78	2.68	2.55	2.40
Net debt to EBITDA (x)	0.69	0.33	0.82	0.68	2.11	1.52	1.53	1.67	1.50	1.39
Net debt to EBIT (x)	1.13	0.60	1.22	1.11	-2.22	2.78	2.81	2.88	2.53	2.27
Interest coverage (x)	5.47	4.28	8.70	6.52	-3.99	3.91	4.02	4.45	4.80	5.28
Cash flow ratios										
Cash flow to revenue (x)	0.19	0.33	0.16	0.10	0.36	0.26	0.17	0.16	0.17	0.19
Cash return on assets (x)	0.07	0.08	0.05	0.04	0.10	0.08	0.05	0.05	0.06	0.07
Cash return on equity (x)	0.15	0.18	0.13	0.13	0.33	0.27	0.17	0.18	0.21	0.24
Cash to income (x)	1.13	1.83	0.75	0.60	(1.60)	1.59	1.03	0.95	0.99	1.06

Source: Author analysis

Appendix 27: FY2023 financial analysis – Peer group

Financial analysis - Peer group

	Liquidity ratios		Profitability ratios					Solvency ratios	
Company name	Current ratio (x)	Cash ratio (x)	Gross profit margin (%)	EBIT margin (%)	Net profit margin (%)	ROA (%)	ROE (%)	Debt to equity (x)	Net debt/EBIT (x)
RWE Aktiengesellschaft	1.35	0.43	29.45%	19.70%	4.18%	1.80%	4.38%	0.46	0.86
Vestas Wind Systems A/S	1.06	0.24	8.34%	2.19%	0.50%	0.50%	2.53%	0.35	0.28
Fortum Oyj	1.98	1.13	41.61%	27.58%	22.56%	-11.04%	-24.35%	0.72	0.87
EDP - Energias de Portugal S.A.	0.91	0.25	35.92%	18.91%	5.88%	2.70%	6.01%	1.28	5.86
E.ON SE	0.81	0.19	32.96%	2.65%	0.48%	1.40%	2.28%	1.63	12.01
Peer average	**1.22**	**0.45**	**29.66%**	**14.21%**	**6.72%**	**-0.93%**	**-1.83%**	**0.89**	**3.98**

Source: Author analysis

Appendix 28: Sensitivity analysis

		Terminal growth rate, %									
	429.3	2.2%	2.3%	2.4%	2.5%	2.6%	2.7%	2.8%	2.9%	3.0%	3.1%	3.2%
WACC, %	4.9%	434.8	458.3	483.7	511.1	540.9	573.4	608.9	647.9	690.9	738.7	791.9
	5.0%	411.9	433.7	457.1	482.4	509.8	539.5	571.9	607.4	646.3	689.2	736.9
	5.1%	390.4	410.7	432.5	455.9	481.1	508.5	538.1	570.5	605.9	644.7	687.6
	5.2%	370.4	389.3	409.6	431.3	454.7	479.9	507.1	536.8	569.0	604.3	643.1
	5.3%	351.7	369.4	388.2	408.4	430.1	453.4	478.6	505.8	535.4	567.6	602.8
	5.4%	334.1	350.7	368.3	387.1	407.3	428.9	452.2	477.3	504.5	534.0	566.2
	5.5%	317.6	333.2	349.7	367.3	386.0	406.2	427.8	451.0	476.1	503.2	532.6
	5.6%	302.1	316.7	332.2	348.6	366.2	385.0	405.0	426.6	449.8	474.8	501.9
	5.7%	287.4	301.2	315.7	331.2	347.6	365.1	383.9	403.9	425.4	448.6	473.5
	5.8%	273.6	286.5	300.2	314.8	330.2	346.6	364.1	382.8	402.8	424.3	447.4
	5.9%	260.5	272.7	285.6	299.3	313.8	329.2	345.6	363.1	381.7	401.7	423.1

Source: Author analysis

Appendix 29: Scenario analysis

Model	Blue sky scenario	Base scenario	Grey sky scenario
Discounted Cash Flow, DKK	510.62	429.35	404.84
Adjusted Present Value, DKK	552.61	458.89	431.08
Flow to Equity, DKK	552.65	459.01	431.23
Average price, DKK	538.63	449.08	422.38
Upside/downside	37%	14%	10%
Recommendation	BUY	HOLD	HOLD

Source: Author analysis

Appendix 30: Monte Carlo statistics

Simulation statistics	
# of trials	10,000
Base case, DKK	429.35
Minimum, DKK	259.83
Maximum, DKK	742.63
Median, DKK	429.66
10th percentile	363.16
90th percentile	512.07
Standard deviation	58.76
Skewness	0.53
Kurtosis	3.44

Source: Author analysis

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Level of Risk	SELL	REDUCE	NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%

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Lisbon, 30 June,
Margarida João

References

BloombergNEF (2022). *The next phase of wind power growth in five charts* [Online]. Available: https://about.bnef.com/blog/the-next-phase-of-wind-power-growth-in-five-charts/ [Accessed: 06/08/2023].

BloombergNEF (2023). *2H 2023 LCOE Update: An Uneven Recovery* [Online]. Available: https://about.bnef.com/energy-transition-investment/ [Accessed: 01/02/2024].

BloombergNEF (2023). *Cost of clean energy technologies drop as expensive debt offset by cooling commodity prices* [Online]. Available: https://about.bnef.com/blog/cost-of-clean-energy-technologies-drop-as-expensive-debt-offset-by-cooling-commodity-prices/ [Accessed: 18/07/2023].

BloombergNEF (2023). *Global low-carbon energy technology investment surges past $1 trillion for the first time* [Online]. Available: https://about.bnef.com/blog/global-low-carbon-energy-technology-investment-surges-past-1-trillion-for-the-first-time/ [Accessed: 19/07/2023].

BloombergNEF (2023). *India, China, Chile, the Philippines, and Brazil Top Ranking as the Most Attractive Developing Economies for Clean Energy Investment* [Online]. Available: https://about.bnef.com/blog/india-china-chile-the-philippines-and-brazil-top-ranking-as-the-most-attractive-developing-economies-for-clean-energy-investment-according-to-report/ [Accessed: 05/01/2024].

BloombergNEF (2024). *Corporate Clean Power Buying Grew 12% to New Record in 2023* [Online]. Available: https://about.bnef.com/blog/corporations-brush-aside-energy-crisis-buy-record-clean-power/ [Accessed: 21/03/2024].

BloombergNEF (2024). *Energy transition investment trends 2024* [Online]. Available: https://about.bnef.com/energy-transition-investment/ [Accessed: 05/02/2024].

BloombergNEF (2024). *Global Clean Energy Investment Jumps 17%, Hits $1.8 Trillion in 2023* [Online]. Available: https://about.bnef.com/blog/global-clean-energy-investment-jumps-17-hits-1-8-trillion-in-2023-according-to-bloombergnef-report/ [Accessed: 01/02/2024].

Damodaran (2024). *Ratings, interest coverage ratios and default spread* [Online]. Available: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ratings.html [Accessed: 05/04/2024].

Deege Solar (2023). *Bifacial solar panels: what are they and how they work?* [Online]. Available: https://www.deegesolar.co.uk/bifacial_solar_panels/ [Accessed: 05/05/2023].

Deloitte (2023). *A balancing act: property tax treatment of renewable energy facilities* [Online]. Available: https://www2.deloitte.com/us/en/pages/tax/articles/renewable-energy-facilities-property-tax.html [Accessed: 19/07/2023].

Deloitte (2023). *A green future depends on the security and cyber resilience of renewable technologies* [Online]. Available: https://www.wired.com/sponsored/story/a-green-future-depends-on-the-security-and-cyber-resilience-of-renewable-technologies/ [Accessed: 21/07/2023].

Deloitte (2023). *2023 renewable energy industry outlook* [Online]. Available: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/energy-resources/us-eri-renewable-energy-outlook-2023.pdf [Accessed: 02/07/2023].

Deloitte (2024). *2024 renewable energy industry outlook* [Online]. Available: https://www2.deloitte.com/us/en/insights/industry/renewable-energy/renewable-energy-industry-outlook.html [Accessed: 02/04/2024].

EY (2020). *Why artificial intelligence is a game-changer for renewable energy* [Online]. Available: https://www.ey.com/en_gl/power-utilities/why-artificial-intelligence-is-a-game-changer-for-renewable-energy [Accessed: 21/07/2023].

EY (2023). *How cyber security can keep pace with the energy transition* [Online]. Available: https://www.ey.com/en_nz/cybersecurity/how-cyber-security-can-keep-pace-with-the-energy-transition [Accessed: 21/12/2023].

Fernandez, P., Bañuls, S. & Acín, P. (2024). *Survey: Market risk premium and risk-free rate used for 88 countries in 2024* [Online]. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4754347 [Accessed: 04/03/2024].

FitchRatings (2024). *Orsted A/S* [Online]. Available: https://www.fitchratings.com/entity/orsted-a-s-84530269 [Accessed: 04/03/2024].

Forbes (2021). *How artificial intelligence and machine learning are transforming the future of renewable energy?* [Online]. Available: https://www.forbes.com/sites/forbestechcouncil/2021/11/30/how-artificial-intelligence-and-machine-learning-are-transforming-the-future-of-renewable-energy/?sh=717bc120541b [Accessed: 17/08/2023].

Forbes (2024). *AI Can Power The Green Energy Transition* [Online]. Available: https://www.forbes.com/sites/sumantsinha/2024/02/26/ai-can-power-the-green-energy-transition/?sh=57d612870dff [Accessed: 28/02/2024].

Forbes (2024). *Monocrystalline vs Polycrystalline Solar Panels: What's The Difference?* [Online]. Available: https://www.forbes.com/home-improvement/solar/monocrystalline-vs-polycrystalline-solar-panels/ [Accessed: 28/03/2024].

IEA (2022). *World energy outlook 2022* [Online]. Available: https://www.iea.org/reports/world-energy-outlook-2022 [Accessed: 19/07/2023].

IEA (2023). *Government Energy Spending Tracker* [Online]. Available: https://www.iea.org/reports/government-energy-spending-tracker-2 [Accessed: 19/07/2023].

IEA (2024). *Electricity market report 2024* [Online]. Available: https://www.iea.org/reports/electricity-2024/executive-summary [Accessed: 13/02/2024].

IEA (2024). *Renewables 2023* [Online]. Available: https://iea.blob.core.windows.net/assets/96d66a8b-d502-476b-ba94-54ffda84cf72/Renewables_2023.pdf [Accessed: 13/02/2024].

IMF (2023). *World economic outlook: a rocky recovery* [Online]. Available: https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023 [Accessed: 19/07/2023].

IMF (2024). *World economic outlook update* [Online]. Available: https://www.imf.org/en/Publications/WEO/Issues/2024/01/30/world-economic-outlook-update-january-2024 [Accessed: 19/02/2024].

McKinsey & Company (2020). *Ørsted's renewable-energy transformation* [Online]. Available: https://www.mckinsey.com/capabilities/sustainability/our-insights/orsteds-renewable-energy-transformation [Accessed: 02/10/2022].

McKinsey & Company (2022). *Charting the global energy landscape to 2050: sustainable fuels* [Online]. Available: https://www.mckinsey.com/industries/oil-and-gas/our-insights/charting-the-global-energy-landscape-to-2050-sustainable-fuels [Accessed: 21/09/2023].

McKinsey & Company (2022). *How to succeed in the expanding global offshore wind market* [Online]. Available: https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/how-to-succeed-in-the-expanding-global-offshore-wind-market [Accessed: 04/08/2023].

McKinsey & Company (2022). *Ready, set, grow: winning the M&A race for renewable developers* [Online]. Available: https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/ready-set-grow-winning-the-m-and-a-race-for-renewables-developers#/ [Accessed: 03/01/2023].

McKinsey & Company (2022). *Renewable-energy development in a net-zero world: land, permits, and grids* [Online]. Available: https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/renewable-energy-development-in-a-net-zero-world-land-permits-and-grids [Accessed: 10/08/2023].

McKinsey & Company (2023). *How oil and gas companies can be successful in renewable power* [Online]. Available: https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/how-oil-and-gas-companies-can-be-successful-in-renewable-power [Accessed: 04/03/2023].

McKinsey & Company (2024). *Global Energy Perspective 2023: Sustainable fuels outlook* [Online]. Available: https://www.mckinsey.com/industries/oil-and-gas/our-insights/global-energy-perspective-2023-sustainable-fuels-outlook [Accessed: 14/01/2024].

Nature Energy (2021). *Expert elicitation survey predicts 37% to 49% declines in wind energy costs by 2050* Online]. Available: https://www.nature.com/articles/s41560-021-00810-z#MOESM10 [Accessed: 17/04/2024].

Ørsted (2018). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2019). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2020). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2021). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2021). *ESG Performance Report*. Denmark: Ørsted A/S.

Ørsted (2021). *Green Bond Impact Report*. Denmark: Ørsted A/S.

Ørsted (2021). *Remuneration Report*. Denmark: Ørsted A/S.

Ørsted (2021). *Statutory Report on Corporate Governance 2021*. Denmark: Ørsted A/S.

Ørsted (2021). *Sustainability Report*. Denmark: Ørsted A/S.

Ørsted (2022). *1Q Interim Report*. Denmark: Ørsted A/S.

Ørsted (2022). *2Q Interim Report*. Denmark: Ørsted A/S.

Ørsted (2022). *3Q Interim Report*. Denmark: Ørsted A/S.

Ørsted (2022). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2022). *Decarbonising society with Power-to-X* [Online]. Available: https://orsted.com/en/insights/white-papers/decarbonising-society-with-power-to-x [Accessed: 01/11/2022].

Ørsted (2022). *ESG Performance Report*. Denmark: Ørsted A/S.

Ørsted (2022). *Europe powered by green energy* [Online]. Available: https://orsted.com/en/insights/white-papers/europe-powered-by-green-energy [Accessed: 01/10/2022].

Ørsted (2022). *Green Bond Impact Report*. Denmark: Ørsted A/S.

Ørsted (2022). *How offshore wind can help decarbonise Europe* [Online]. Available: https://orsted.com/en/insights/white-papers/a-european-green-deal [Accessed: 10/10/2022].

Ørsted (2022). *Investor Presentation Q2 2022*. Denmark: Ørsted A/S.

Ørsted (2022). *Making green energy affordable* [Online]. Available: https://orsted.com/en/insights/white-papers/making-green-energy-affordable/foreword [Accessed: 22/10/2022].

Ørsted (2022). *Our green business transformation* [Online]. Available: https://orsted.com/en/insights/white-papers/green- transformation-lessons-learned [Accessed: 30/09/2022].

Ørsted (2022). *Remuneration Report*. Denmark: Ørsted A/S.

Ørsted (2022). *Statutory Report on Corporate Governance 2022*. Denmark: Ørsted A/S.

Ørsted (2022). *Sustainability Report*. Denmark: Ørsted A/S.

Ørsted (2022). *Taking action to stay within 1.5ºC* [Online]. Available: https://orsted.com/en/insights/white-papers/taking-action/foreword [Accessed: 01/10/2022].

Ørsted (2022). *Unlocking a renewable energy future* [Online]. Available: https://orsted.com/en/insights/white-papers/unlocking-a-renewable-energy-future [Accessed: 01/10/2022].

Ørsted (2023). *1Q Interim Report*. Denmark: Ørsted A/S.

Ørsted (2023). *2Q Interim Report*. Denmark: Ørsted A/S.

Ørsted (2023). *Annual Report*. Denmark: Ørsted A/S.

Ørsted (2023). *FY 2023 results & Capital Markets Update*. Denmark: Ørsted A/S.

Ørsted (2023). *Green Bond Impact Report*. Denmark: Ørsted A/S.

Ørsted (2023). *Investor Presentation Q4 2022*. Denmark: Ørsted A/S.

Ørsted (2023). *Investor Presentation Q1 2023*. Denmark: Ørsted A/S.

Ørsted (2023). *Investor Presentation Q2 2023*. Denmark: Ørsted A/S.

Ørsted (2023). *Remuneration Report*. Denmark: Ørsted A/S.

PwC (2024). *Corporate income tax (CIT) rates* [Online]. Available: https://taxsummaries.pwc.com/quick-charts/corporate-income-tax-cit-rates [Accessed: 17/02/2024].

PwC (2024). *Global M&A Trends in Energy, Utilities & Resources* [Online]. Available: https://www.pwc.com/gx/en/services/deals/trends/energy-utilities-resources.html [Accessed: 01/02/2024].

Refinitiv (n.d.). [Software]. Available: https://www.refinitiv.com [Accessed: 19/09/2023].

Reuters (2024). *IMF says global 'soft landing' in sight, lifts 2024 growth outlook* [Online]. Available: https://www.reuters.com/world/imf-says-global-soft-landing-sight-raises-2024-economic-growth-outlook-2024-01-30/ [Accessed: 01/04/2024].

S&P Global (2023). *Global corporate clean energy procurement crosses 50GW with Asia as the largest region in 2022* [Online]. Available: https://www.spglobal.com/commodityinsights/en/ci/research-analysis/global-corporate-clean-energy-procurement-crosses-50-gw.html?_its=JTdCJTIydmlkJTIyJTNBJTIyNTg1Mjc2MzktYmEwYS00NmU1LTgwOWUtYjlkYzY4M2I5ZjllJTIyJTJDJTIyc3RhdGUlMjIlM0ElMjJybHR%2BMTY5NTI5MDgzNX5sYW5kfJfMTAwMjRfZGlyZWN0XzBmNTJmNTBhOTJmYzJhZTVkZjFhNGM5NDE1N2FiNDhkJTIyJTdE [Accessed: 15/04/2023].

United Nations (2022). *World population prospects 2022* [Online]. Available: https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf [Accessed: 22/05/2023].

United Nations (2024). *World Economic Situation and Prospects 2024* [Online]. Available: https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/WESP_2024_Web.pdf [Accessed: 22/03/2024].

Yahoo! Finance (n.d.) OMXC25 (^OMXC25) [Data Set].
Available: https://finance.yahoo.com/quote/^OMXC25?p=^OMXC25&.tsrc=fin-srch [Accessed: 22/04/2024].

Yahoo! Finance (n.d.) Ørsted A/S (ORSTED.CO) [Data Set].
Available: https://finance.yahoo.com/quote/ORSTED.CO/balance-sheet?p=ORSTED.CO [Accessed: 22/04/2024].

Yahoo! Finance (n.d.) STOXX600 (^STOXX) [Data Set].
Available: https://finance.yahoo.com/quote/%5ESTOXX?p=%5ESTOXX/ [Accessed: 22/04/2024].