# Fred. Olsen Renewables Sustainability Report 2022



### Sustainability at a glance - 2022

- We own and operate 12 wind farms with 338 turbines in Norway, Sweden, and UK.
   Our capacity is 788 MW
- Our energy production was 2.1 TWh
- We covered the electricity needs of ~577 000 households
- Our renewable energy avoided ~900 000 tonnes of CO<sub>2</sub> equivalents (tCO2eq) from being released to the atmosphere
- · Our EU Taxonomy score is '100% Aligned'
- Our Green House Gas emissions were 1 404 tCO2eq
- We contributed to the societies in Norway, Sweden, UK, and Italy by paying
   731 million NOK in taxes
- We distributed nearly 11 million NOK to various local activities through community benefit funds
- We were 85 employees in 2022. The gender balance was 72% males, 28% females

**2.1 TWh** 

produced in 2022

~577 000 homes

supplied with renewable energy

~900 000 tonnes CO2

**100% EU Taxonomy-aligned** 



### Content



#### **INTRODUCTION**

Sustainability at a glance

**CEO** letter

**Policies** 

About Fred. Olsen Renewables

About the report

Materiality assessment

#### **ENVIRONMENT**

Scope and objectives - Environment

Renewable energy production

**Green House Gas emissions** 

Climate risks

Project Fäbodliden II

**Environmental incidents** 

**EU Taxonomy** 

Waste

Nature loss and biodiversity

**KPIs - Environment** 

### SOCIAL

Scope and objectives - Social

**Human rights** 

**Health and safety** 

**Equality and anti-discrimination** 

Competence

**KPIs - Social** 

#### **GOVERNANCE**

Scope and objectives - Governance

**Board composition** 

Stakeholders

Ethical behaviour

Risk management

**KPIs - Governance** 

#### **PROSPERITY**

Scope and objectives - Prosperity

Wealth creation

Continuous improvements

New technologies

Tax payments

Community contributions



### **CEO** letter

In Fred. Olsen Renewables we have a strong commitment to develop renewable energy sources both as a sound business model and as a genuine support of the shift to a decarbonised society. The company has over the last 25 years established itself as a renewables company of significance covering the whole value chain from developing to constructing and operating onshore windfarms. We are developing our business footprint further by moving into new regions, as well as offshore floating solar projects and other new technologies.

It is embedded in our company culture to maintain a sustainable business model and to minimise the environmental footprint in all our activities. Our objective when designing wind parks is to harmonise the layout and infrastructure with the terrain and topography.

When constructing and operating the wind farms we have a risk-based approach to eliminate hazards and risks to protect the environment and personnel. We take pride in making effective use of the wind resources and thereby reducing the Green House Gas (GHG) emissions in our power generation activities and thus contributing to battling the climate change.

Social awareness and strong engagement with the local stakeholders and communities are essential prerequisites for a successful development project.

We have a responsibility to engage with the local businesses, suppliers, and service providers to ascertain that our activities also benefit those. It is part of our operating philosophy that we train and employ technicians from the local communities. Further, we are committed to ensuring good working conditions, honouring labour rights, and promoting diversity

The company governance is described and documented in our Safety Management System and Fred. Olsen Renewables Management System, available to all employees on the company intranet and SharePoint site. We are a company with high integrity and ethical standards, and with a commitment to comply with all applicable laws, rules and regulations. This is described in our Code of Conduct, and it is expected that all employees and suppliers behave and conduct their business in accordance with these principles. We believe that active corporate governance is essential to the development of our company and to the benefit for shareholders, employees, and society.

Oslo, January 2023,



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Anders Bade Co-CEO



Na Brandwell

Ivar Brandvold Co-CEO

### **Policies**

Our Sustainability Policy, Code of Conduct, and HSEQ Policy state the top management's intent and provide guidelines to decision making in matters related to sustainability.

The policies are available at fredolsenrenewables.com/about us. K Fred. Olsen Renewables

#### Sustainability policy

In Fred. Olsen Renewables we have a strong obligation to the society and to our external and internal stakeholders to operate our business sustainably

All work shall be conducted in compliance with laws, rules, and regulations

Our strategy is to contribute to the shift towards a sustainable and decarbonised society by delivering renewable energy from onshore wind, floating solar, and through developing our businesses further into existing and new markets.

#### Our commitments:

- . We will always choose the most sustainable alternative, taking environmental, social, technical, and economical aspects into account
- · We maintain high ethical standards and integrity. Our Code of Conduct is mandatory for all our employees and for all companies and people working for us

- . We work systematically and continuously to reduce the impacts on the environment from air emissions, waste, and other hazardous substances under
- · We follow the principles of recognised international standards when measuring direct and indirect Green House Gas emissions

- . We have a zero injuries philosophy and are committed to the protection of health and safety for our employees and subcontractor personnel
- · We care for the society around us
- · We have a responsibility to ascertain that our activities benefit local communities

#### Governance

- · We define clear sustainability objectives and targets
- · We are transparent and open in our communication with our stakeholders
- . We govern our business by establishing, implementing, and maintaining a structured management system

Oslo, 23.11.2021

broke Bal Chief Executive Officer

Fred. Olsen Renewables

Chief Executive Officer Fred. Olsen Renewables X Fred. Olsen Renewables

#### Code of Conduct

In Fred. Olsen Renewables we are committed to maintain high ethical standards and integrity.

- · All work shall be conducted in compliance with laws, rules, and regulations
- · We shall always have the interest of our internal and external stakeholders in mind
- · We respect the rights defined in UN's Universal Declaration of Human Rights. We have zero tolerance for human rights violations. We assess actual and potential adverse impacts and implement measures to cease, prevent or mitigate them
- We respect the rights defined in the ILO Declaration on Fundamental Principles and Rights at
- . We are committed to equal opportunities for all. We do not accept any form of discrimination on the basis of gender, age, ethnic origin, nationality, disability, sexual orientation, religion, political opinion, or otherwise
- · We do not accept the use of child labour or modern slavery
- · We shall not prevent or discourage employees from associating freely with any lawful workers' association or collective bargaining association of their choice
- . We shall contribute to the elimination of all forms of forced or compulsory labour
- · We expect all our employees and suppliers to exercise good judgment in ethical dilemmas, and to report any incidents, hazards, risks, opportunities, or concerns they may have or
- . We expect all our employees and suppliers to act in a safe manner and to strive for meeting our aim of zero injuries and zero environmental incidents
- · We are transparent and open in our communication with our stakeholders and comply with the Transparency Act
- . We do not accept any form of corruption and shall not offer or accept bribes or other inappropriate gifts or benefits in order to achieve business or personal advantages
- · Employees shall not have interests which may negatively impact the business
- · Employees shall not receive loans from any of our business partners
- All our employees are under the duty of confidentiality and shall prevent unauthorised persons' access to information. The duty of confidentiality continues to apply after termination of the contractual relationship with us
- · We do not accept use of insider information for personal or business gain
- . Employees and suppliers are encouraged to report all incidents and will not be subjected to reprisals unless such incidents are found to be of a wilful or self-inflicted nature
- . We expect all employees and all our suppliers to act in compliance with this Code of Conduct

Oslo, 01.12.2022

Anders Bade

Chief Executive Officer Fred. Olsen Renewables Chief Executive Officer Fred. Olsen Renewables Fred. Olsen Renewables

#### **HSEQ** policy

We are committed to be recognised as a leading organisation for Health, Safety, Environment and Quality (HSEQ) management.

We are committed to the protection of personnel, the environment, and equipment. In fulfilling this, we will establish and maintain a safe and healthy work environment.

We are committed to conduct our work in compliance with regulatory laws, rules and regulations, and industry standards.

We are committed to eliminate hazards and reduce risks through the use of systematic risk assessments as an integrated part of our work.

Our aim is always:

- · Meeting or exceeding our stakeholders' requirements and expectations
- · Zero injuries
- · Zero environmental incidents
- Zero defects · On time delivery
- · Continuous improvement

We achieve these goals by conducting our work in compliance with our HSEQ Management and Safety Management Systems, and through consultation with and participation of our employees.

Oslo, 23.11.2021

Chief Executive Officer Fred, Olsen Renewables

Chief Executive Officer Fred, Olsen Renewables

# **About Fred. Olsen Renewables**

Fred Olsen Renewables is an energy producer delivering clean and sustainable electricity to the European grid.

We have offices in Norway, England, Scotland, Sweden, Italy, and Singapore.

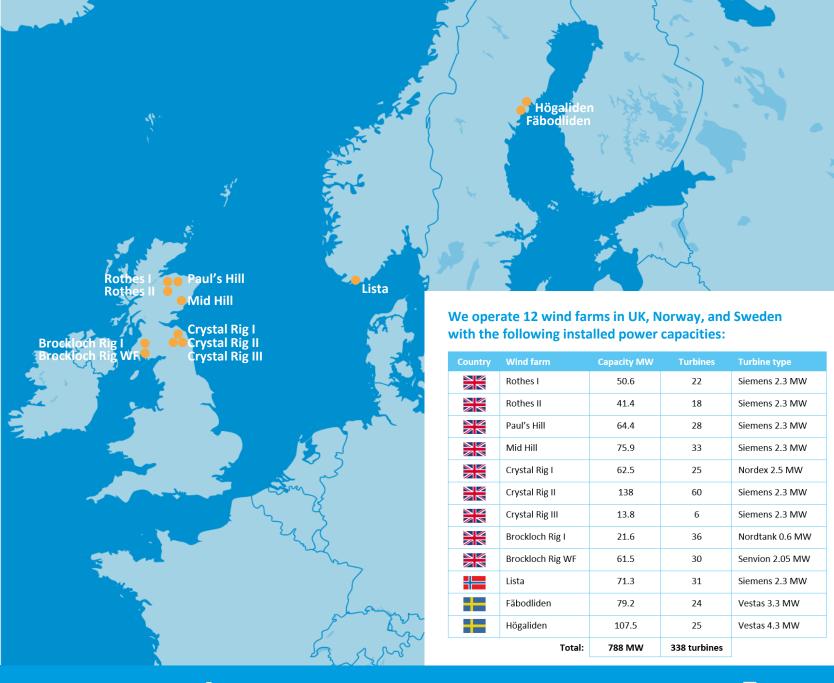
The organisation consisted of 85 employees at the end of the year. Including the work conducted by subcontractors and temporary personnel, 156 manyears were generated in 2022.

We are focusing on further expansion, and we are developing prospects within both onshore wind power and floating solar.

We develop, build, own, and operate renewable energy assets. We have a long term perspective on our business. Life extensions and sustainable decommissioning are part of our business philosophy.

We are committed to expanding our portfolio of onshore wind. Currently, the project under construction is to be completed during 2023:

Count	ry V	Vind farm	Capacity M	ıw	Turbines	Turbine type
+	Fä	bodliden II	17.2		4	Vestas 4.3 MW



### **About the report**

This report is based on the World Economic Forum (WEF) framework. It provides a description of our sustainability performance in 2022 for the areas 'Environment', 'Social', 'Governance', and 'Prosperity'.

The objectives for each of the areas define our goals towards a sustainable future. Status on KPIs are listed at the end of each chapter.

For 2022, we have limited the sustainability report with the following boundaries:

- WEF Theme: "Climate Change" Scope 3 emissions: The Scope 1, 2 and 3
  GHG emissions are reported in accordance with the GHG Protocol Corporate
  standard. Scope 3 emissions in this report covers Purchased goods and
  services, Capital goods, Waste, Fuel not included in Scope 1, and Business
  travel. Of the 15 Scope 3 categories, 10 are not covered, either due to lack of
  reliable data or that they are not applicable
- WEF Theme: "Nature Loss": We recognise that our wind farms have an impact on nature and local societies through area usage, biodiversity, impact on peatland, visual pollution, etc. These aspects are described in chapter Environment > Nature loss. It should be noted that there is limited data available to accurately determine the effects of nature loss



### **Materiality assessment**

#### Scope

The materiality assessment identifies which ESG topics are material for the company and its stakeholders.

'Material' and 'materiality' in this context are defined as:

"A matter is material if it could substantively affect the organisations ability to create value in the short, medium or long term".

The assessment identifies the key environmental, social and governance topics. It considers the level of materiality of each topic against the importance for the stakeholders and impact on our own value creation.

### **Risks and opportunities**

'FOR Sustainability risk assessment' is used as baseline. It consists of two parts:

- 'Climate risk assessment', listing transition risks and physical risks
- 'ESG risk assessment', listing non-climate related risks and opportunities

The risk management approach is further described in chapters 'Climate risks' on page 18 and 'Risk management' on page 36.

### Significance for stakeholder groups

An in-depth analysis has been undertaken to determine the importance of each topic to each stakeholder group, classified as 'Very high', 'High', or 'Moderate'.

The result of this analysis is used as a critical factor when determining the degree of materiality.

#### Likelihood of occurrences

Reference is made to 'Climate risk assessment' and 'ESG risk assessment' where the likelihood of occurrences is scored for each risk and opportunity.

### **Materiality priorities**

Based on the assessment, the following sustainability topics are currently considered most material for the company:

HIGH PRIORITY MATERIAL ISSUES:	PRIORITY MATERIAL ISSUES:	MONITOR AND MANAGE:
Risks:  Increased taxes and grid tariffs  Increased cost of raw materials  Cyber security  Safety	<ul> <li>Risks:</li> <li>Price cannibalisation of renewables energy production</li> <li>Consent requirements</li> </ul>	<ul> <li>Risks:</li> <li>Uncertainty in market signals</li> <li>Public resistance against onshore wind</li> <li>Mandates on and regulation of onshore wind</li> </ul>
Opportunities:  • Development of new onshore windfarms	<ul> <li>Opportunities:</li> <li>Development of new products and services through R&amp;D and innovation</li> </ul>	<ul> <li>Opportunities:</li> <li>Increased demand for lower emission sources of energy</li> </ul>

# **ENVIRONMENT**



### **Scope and objectives - Environment**

### **Applicable UN Sustainability Development Goals:**













This chapter covers renewable energy production, GHG emissions, climate risks, EU Taxonomy, environmental incidents, waste, and nature loss and biodiversity.

The GHG emissions have been calculated in accordance with GHG Protocol Corporate Standard.

The climate risks have been structured in accordance with Taskforce for Climate-related Financial Disclosures (TCFD). Assessment of physical risks follows the EU Taxonomy structure.

### **Objectives:**

#### Renewable energy production:

- Increase onshore wind capacity through realisation of consented projects, subject to final investment decision
- · Continue development of offshore floating solar
- Implement prototype hybrid solar/wind at one existing wind farm

#### **GHG** emissions:

- For construction projects, implement GHG emission as key evaluation criteria for selecting suppliers
- Improve collection of Scope 3 GHG emission data, including CO<sub>2</sub> footprint from construction
- All new company vehicles to be electrical, if possible
- All power agreements to be with renewable electricity deals ("green tariffs")

#### **Environmental impacts:**

- · Zero environmental spills to ground
- Seek to achieve biodiversity neutrality for new sites where possible

#### **Nature loss:**

• For new sites, road layouts to be planned with minimum use of area and avoiding impact on peatland where possible

#### Visual pollution:

• Subject to national civil aviation authority approval and technical/economic feasibility, implement solutions to reduce visual pollution from air navigation lights

#### Waste:

 Reduce the portion of general (non-recyclable) waste with 10 percentage points per year

### Renewable energy production

(WEF theme: "Climate change")

#### **Production**

Our wind farms produced 2 096 743 MWh (2.1 TWh) of renewable energy in 2022. Compared with previous years, this is a significant increase, mainly due to two factors:

- Högaliden windfarm in Sweden was put into operations, adding 107.5 MW capacity
- Favourable wind conditions in 2022

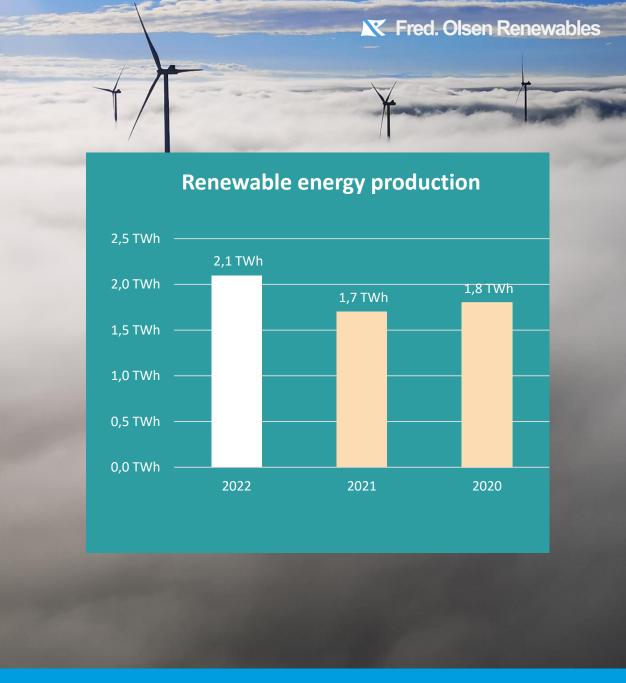
### Number of households supplied

Using the official average power consumption for each country, the total number of households that were supplied with green energy may be estimated:

Country	Production	Avg. consumption	No. of households
Norway	234 119 MWh	16 000 kWh	14 632
Sweden	552 655 MWh	5 000 kWh	110 531
UK	1 309 969 MWh	2 900 kWh	451 713
		Total:	576 877

### CO<sub>2</sub> avoided

A MWh of renewable energy theoretically replaces a MWh of fossil energy, thus making it possible to calculate how many tons of CO<sub>2</sub> have been avoided. The fossil energy percentage (natural gas, oil, coal) for each country is uses as input. Our total production of 2 096 749 MWh is multiplied with conversion factor 0.429. Roughly estimated, we avoided ~900 000 tones CO<sub>2</sub> from being release to the atmosphere.



### Fred. Olsen Renewables

### **Green House Gas emissions**

(WEF theme: "Climate change")

Our 'CO2 footprint' is calculated in accordance with the GHG Protocol Corporate Standard, dividing the emissions into three main categories:

- Scope 1 Direct emissions
- Scope 2 Indirect electricity generated emissions
- Scope 3 Other indirect emissions

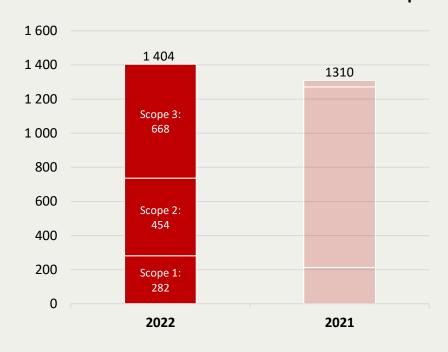
#### In 2022, our total GHG emissions were 1 404 tCO2eq.

Compared with 2021, there was a slight increase in our CO2 footprint. Several factors caused the changes, the most significant were:

- 1. Construction work at the Fäbodliden II project started, causing a growth in Scope 3 emissions with more than 560 tCO2eq
- 2. We experienced a significant drop in import power for the UK windfarms, reducing the 'Indirect electricity generated emissions' in 2022

Each category is described in the pages below. 'Annex E GHG emission calculations' provides further details.

### Total GHG emissions in 2022: 1 404 tCO2eq



### Fred. Olsen Renewables

### Scope 1 – Direct emissions

(WEF theme: "Climate change")

"Scope 1" is defined as "Direct GHG emissions [that] occur from sources that are owned and controlled by the company".

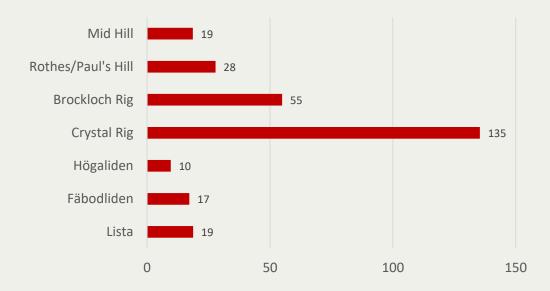
Our raw material for the production is the wind, our end product is emission-free electricity. Hence, there are no release of CO<sub>2</sub> from the production itself.

However, vehicles are necessary for operating and maintaining the turbines. Discharges from fossil fuel (diesel) used by the site teams are therefore included in Scope 1.

In 2022, Scope 1 "Direct GHG emissions" were 282 tCO2eq.

The wind farms used a total of 104 390 litres of diesel in 2022:

### Scope 1 - Direct GHG emissions (fuel): 282 tCO2eq



### **Scope 2 – Indirect electricity generated emissions**

(WEF theme: "Climate change")

"Scope 2" is defined as "Electricity indirect GHG emissions from the generation of purchased electricity consumed by the company"

In 2022, Scope 2 "Indirect electricity generated emissions" were 454 tCO2eq.

Scope 2 Electricity indirect GHG emissions		tCO2eq
Office - Italy	11 500	2,8
Offices - UK	21 596	4,2
Office - Sweden	4 741	0
Office - Norway	157 030	1,7
Windfarm - Norway	288 262	3,2
Windfarms - Sweden	1 512 464	13,6
Windfarms - UK	2 214 604	428,3
Total:	4 210 197	454

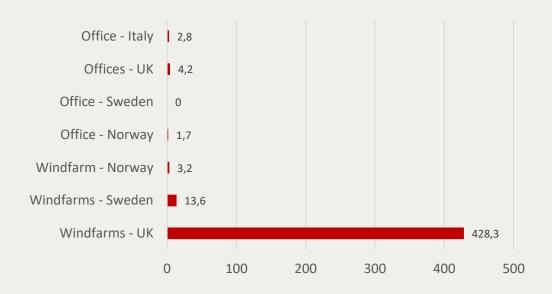
The consumptions in kWh have been multiplied with conversion factors for each country:

 Norway 0.011 kgCO2/kWh 0.009 kgCO2/kWh Sweden 0.193 kgCO2/kWh UK 0.247 kgCO2/kWh Italy

Import power for the wind farms is electricity needed when the turbines are not producing, e.g. during downtime or in low winds.

UK sites have higher generation of GHG emissions compared with the Scandinavian sites, both due to higher kWh and higher conversion factor.

Scope 2 - Indirect electricity generated emissions: 454 tCO2eq



**ENVIRONMENT** 

### **Scope 3 – Other indirect emissions**

(WEF theme: "Climate change")

**ENVIRONMENT** 

Scope 3 is defined as "Other indirect GHG emissions" and is a reporting category that allows for the treatment of all other indirect emissions. They are a consequence of the activities of the company but occur from sources not owned or controlled by the company.

### In 2022, Scope 3 "Other indirect GHG emissions" were 668 tCO2eq.

The 'GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard' has been used for estimating our indirect emissions. It lists 15 categories. The following are considered relevant for our activities:

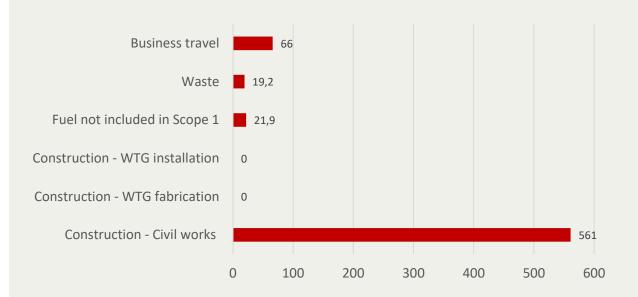
Scope 3 Other indirect GHG emissions	tCO2eq
Purchased goods and services - Construction, civil works/electro	561,0
Captial goods - Construction, turbine fabrication and installation	0,0
Fuel not included in Scope 1	21,9
Waste generated in operations	1,6
Business travel	66,0
Total:	651

The remaining Scope 3 categories are either not applicable or lacking data and have not been included in our calculations. Further explanation is provided in 'Annex E GHG emission calculations'.

In 2021, the Scope 3 emissions were only 38 tCO2eq. The large increase in 2022 is mainly due to construction activities at Project Fäbodliden II.

Further, as Covid restrictions were lifted in 2022, air travel and vehicle usage (fuel not included in Scope 1) have shown an increase.

### Scope 3 - Other indirect emissions: 668 tCO2eq



### Project Fäbodliden II

(WEF Theme: "Climate change")

### **Description of the project**

As an extension of the existing Fäbodliden wind farm in Northern Sweden, we are now installing four large Vestas V150 4.3 MW turbines with 230 m tip height. The construction work started in August 2022, with planned completion during 2023.

### Sustainability initiatives

Several steps have been taken to make this a sustainable project:

- Increased renewable energy production is our most important contribution in the battle against the climate change. The four new turbines gives an expanded capacity of 17.2 MW
- **2. Recycled steel**: The gravity foundations (see picture) requires more than 300 tons of rebar steel in total. Instead of using standard steel, recycled steel made with hydropower has been used, reducing the GHG emissions with 63%
- **3. 'Green concrete':** Our civil works contractor, Skanska, is using a new type of concrete which consists of a high proportion of slag that replaces some of the cement volume. The CO<sub>2</sub> footprint is reduced with 21%
- **4. HVO-100 fuel**: Hydrotreated Vegetable Oil (HVO) is a low carbon fuel that replaces diesel. Subject to local availability, HVO-100 will be used in the continuation of the project, giving a CO<sub>2</sub> reduction of 23% compared with normal diesel
- **5. Avoiding peatland**: When planning the site layout, roads were routed around peats and marshes were possible to avoid release of CO<sub>2</sub> and to maintain biodiversity in the area



### **Climate risks**

(WEF theme: "Climate change")

#### Methodology

'Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)' framework has been used for assessing the transition risks and climate related opportunities. For the physical climate risks, the EU Taxonomy framework has been used.

We have structured the sustainability risks and opportunities two documents:

- 'Climate risk assessment' (Annex C) assessing the impacts of the climate change to our business
- 'ESG risk assessment' (Annex D) for the non-climate related sustainability aspects

Further details are provided in 'Annex B Climate risks and opportunities'.

### Climate change scenarios

The climate risk assessment considers the likelihood and consequences in four different scenarios, known as Representative Concentration Pathways (RPCs).

- RCP 8.5: Temperature increase 3-7°C, sea level rise 0.6 m, large extreme weather increase
- RCP 6.0: Temperature increase 2.2 °C, sea level rise 0.5 m, moderate extreme weather increase
- RCP 4.5: Temperature increase 1.8 °C, sea level rise 0.5 m, moderate extreme weather increase
- RCP 2.6: Temperature increase 1.0 °C, sea level rise 0.4 m, small extreme weather increase

### Transition risks (TCFD)

The following risks have been identified as applicable:

- Increased pricing of GHG emissions
- Enhanced emissions-reporting obligations
- Mandates on/regulation of products and services
- Unsuccessful investment in new technologies
- Uncertainty in market signals
- Increased cost of raw materials
- Stigmatisation of sector
- Increased stakeholder concern or negative feedback

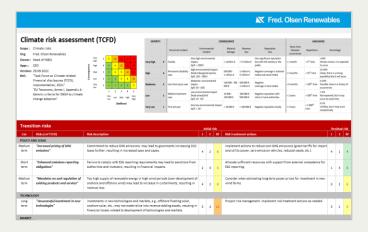
### Physical risks (EU Taxonomy)

- Cold wave/frost
- Wildfire
- Storm (including blizzards, dust and sandstorms)
- Heavy precipitation (rain, hail, snow/ice)
- Flood (coastal, fluvial, pluvial, ground water)
- Landslide
- Heat stress

### Climate related opportunities (TCFD)

The 'Top5' opportunities are:

- Development/expansion of low emission goods and services
- Access to new markets
- Development of new products or services
- Increased demands for lower emission energy
- Use of public sector incentives







### **EU Taxonomy**

(WEF theme: "Climate change")

### **Background**

The taxonomy is a system of classification that establishes clear and consistent criteria for determining if economic activities are sustainable. It utilises science-based technical screening criteria that must be met for an activity to be considered "green."

#### Assessment of activities

We have conducted a thorough review of our business activities in line with the EU Taxonomy.

We are eligible to "4.3 Electricity generation from wind power" for these three activities:

- 1. General
- Onshore wind farms (operations & maintenance)
- 3. Construction projects (construction of new wind farms)

### **EU Taxonomy score**

To assess our activities' eligibility and alignment we have used Celsia's taxonomy software solution.

"Eligible" means that the company substantially contribute to one of the six environmental objectives of the Taxonomy.

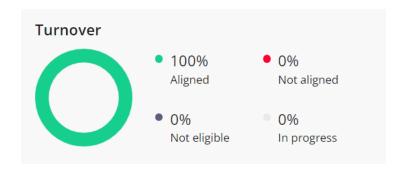
To be "Aligned", the company must meet two additional criteria:

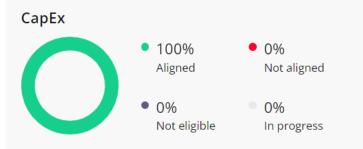
- 1. Documented 'Do No Significant Harm' (DNSH)-actions in relation to the other environmental objectives
- 2. Comply with Minimum Social Safeguards as described in the Taxonomy Regulation

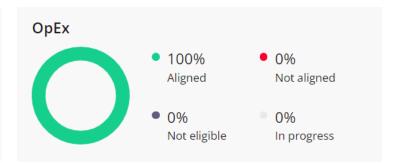
The assessment concludes that we are 100% Aligned.

Further details are provided in 'Annex G EU Taxonomy assessment'.









### **Environmental incidents**

(WEF Theme: "Spills")

We had 10 environmental incidents in 2022, all with 'Very low impact' (<10 litres spill) or 'Low impact' (10-50 litres spill).

### Nine chemical spills from turbines and vehicles

Five of the cases were related to minor leakage of oil or hydraulic fluid from turbines, caused by various technical faults. The remaining four cases were oil leakages from vehicles.

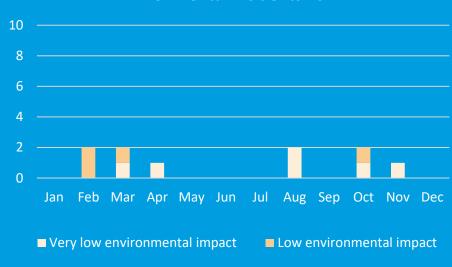
For all the incidents, the contaminated soil was removed and delivered to the local waste reception facilities.

To prevent similar incidents, corrective actions have been implemented. For the turbines, additional checks have been added to the annual service procedures. For vehicles, conducting pre-use checks have been emphasised for all operators.

### One biological incident

In addition to the spills, we had one report of a dead bird found at a wind farm.

### **Environmental incidents 2022**





### Waste

(WEF Theme: "Solid waste")

Our wind farms generated 82 tonnes of waste in 2022.

All waste is segregated in compliance with the local municipality's recycling regulations for the actual site.

About 45% was general waste (non-recyclable). The remaining was recyclable waste, categorised in plastics, food waste, wood, metal, paper and cardboard, electrical waste, oil, oily rags and filters, and hazardous waste.

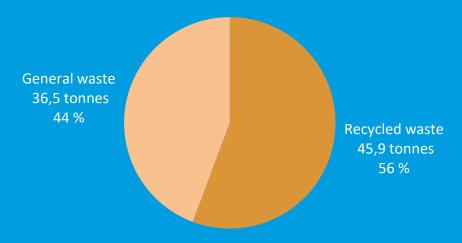
Due to increased service and maintenance activities, the total waste amounts were higher in 2022. The objective of reducing the general waste share by 10 percentage points was not reached (44% in 2022 compared with 37% in 2021).

When calculating the GHG emissions, the following conversion factors were used:

- General waste (non-recyclable): Disposed with thermal treatment. The combustion process requires energy and releases CO<sub>2</sub>. In the absence of internationally accepted common standards, we have used conversion factor 0.502 as defined by Statistics Norway
- Recyclable waste: We have used conversion factor 0.021 as defined by UK Department for Environment, Food & Rural Affairs (DEFRA).

CO<sub>2</sub> from waste was 19.3 tCO<sub>2</sub>eq in 2022.

### Waste: 82 tonnes total (wind farms)





### **Nature loss and biodiversity**

(WEF theme: "Nature loss")

We recognise the fact that all wind farms to some degree may have impact on the environment. We are committed to ensure that nature loss is reduced to an absolute minimum.

- **Environmental impact studies**: Prior to building new wind farms, we undertake comprehensive environmental studies to ensure that potential effects are taken into consideration. The studies are conducted with support from external expertise and in close dialog with local authorities and stakeholders
- **Biodiversity**: For windfarms under development, our objective is to compensate for negative impact on biodiversity. An example of such compensation in the UK is restoration of peat bogs and ecological habitats which has resulted in many types of plant and animal life having returned to the moorlands. Some projects involve forest and land that will be used to replace the felled forestry (see page 23)
- Area usage reducing size of crane pads: Currently, installation of wind turbines needs cranes that require build-up of large crane pads. We are involved with company Nekkar ASA in the development of SkyWalker, an innovative solution where the objective is to reduce the use of heavy cranes for turbine installation. This would allow for significantly reduced installation times, reduced GHG emissions, and may reduce the crane pad sizes with up to 40%



- Area usage reduce need for temporary blade storage: Today, turbine blades, towers, and nacelles are temporarily kept at site during the installation phase. This requires storage areas to be built. For future project, we will investigate further the possibility to implement the 'just-intime' principle for turbine component logistics, thus reducing the need for temporary storage areas at the sites
- Peatland: All future construction projects are designed to minimise the impact on peatland. Considerable efforts have been made to remove drainages and manage water flow to restore peatlands. Internal roads in the wind farm area will be routed around peatland if possible

- Visual pollution from rotating turbine blades is a source for local resistance against new wind farms. When identifying potential development projects, we seek to reduce the visual pollution effects when planning the site layout
- Visual pollution from air navigation lights: Impact from blinking air navigation lights can be reduced by using the lights only for the turbines located at the outer perimeter of the wind farm. The visual pollution can be further reduced with emerging technologies utilising transponder-based solutions that activates the lights only if an aircraft approaches, instead of having the lights on continuously. It should be noted that these solutions are subject to approval from national civil aviation authority
- Public access to the wind farm area: In Scandinavia and in the UK, the right-to-roam laws means that the public has general un-motorised access to our wind farm area. The internal site roads are open for hikers and bikers. The roads are also used by landowners for forestry and may also enable farmers to expand the grazing areas for their livestock



### **Examples of sustainability initiatives**

This page lists a few of the initiatives taken by our organisation to improve sustainability:

### Measures to conserve hen harrier and bird populations

(Paul's Hill wind farm)

Biodiversity measures include heather management where appropriate, drain blocking, and annual ecological monitoring of the success of these prescriptions.

### Broadleaf planting and barn owl boxes

(Crystal Rig wind farm)

Broadleaf planting has been conducted along riparian corridors to increase biodiversity.

Barn owl boxes have also been installed on the site and have been successfully used by the local barn owl population.

### Bog restauration and heather management to benefit nesting raptors and other bird populations (Rothes I wind farm)

These measures are designed to provide suitable nesting areas for raptors and to promote red grouse, golden plover and other birds.

Ecological monitoring is undertaken to monitor the success.

### **Biodiversity corridor to benefit** black grouse

(Rothes II wind farm)

The overall aim is to restore open moorland habitat with native broadleaf woodland.

Includes peatland restorations, broadleaf planting, and deer fence to protect planting.

Ecological monitoring is undertaken to monitor success.

### Replacing diesel truck with electrical SUV

(Fäbodliden wind farm)

Our objective is "All new company vehicles to be electrical, if possible".

Fäbodliden wind farm is first out and has now acquired a fully electric SUV for the site.

Going forward, our ambition is to phase out the diesel vehicles.

### Planning road layout together with biologists

(Lista wind farm)

When building Lista windfarm we worked closely with biologists to reduce the impact of the site roads and crane pads.

This included routing roads around areas with peat and ponds, taking care not to impede the natural flow of water in the area.

### Restauration of peatland

(new development project, Norway)

We are exploring building an access road to section off the shallow end of a regulated hydropower reservoir.

The new road will trap water behind it, thus restoring the original peat and the ecosystem which was damaged by the hydropower reservoir.

### **Biodiversity measures**

(Mid Hill wind farm)

The following measures have been undertaken to promote black grouse habitat and general biodiversity at this site:

- Forestry clearance
- Furrow and drain blocking to restore bog habitats
- Broadleaf planting
- (Conifer) tree control
- · Ecological monitoring



### **Key Performance Indicators - Environment**

ENVIRONMENTAL KPIs	2022	2021	2020
Renewable energy production	2 096 743 MWh	1 713 435 MWh	1 862 000 MWh
GHG emissions – Scope 1	282 tCO2eq	213 tCO2eq	(No data)
GHG emissions – Scope 2	496 tCO2eq	1 058 tCO2eq	(No data)
GHG emissions – Scope 3	668 tCO2eq	38 tCO2eq	(No data)
General waste at wind farms (%)	44% (37 tonnes)	37% (20 tonnes)	(No data)
Environmental incidents - spills to ground	9	2	2
Biological incidents - dead birds/animals	1	2	2

#### **Comments:**

- Renewable energy production: Increase from 1.7 TWh to 2.1 TWh in 2022 is clearly positive, see comments on page 12
- GHG emission Scope 1: A slight increase in fuel usage in 2022. It should be noted that 2021 was characterised by lower activity level due to Covid restrictions
- GHG emissions Scope 2: Very significant reduction in import power for the wind farms in 2022
- GHG emissions Scope 3: The large increase in 2022 is related to construction works at Project Fäbodliden II, which had 561 tCO2eq
- Waste objective of 10 percentage points reduction was not met (see page 21)
- Environmental incidents showed an increase in 2022 (see page 20)
- Biological incidents, one dead bird recorded in 2022 (see page 20)

# SOCIAL



### **Scope and objectives - Social**

### **Applicable UN Sustainability Development Goals:**













This chapter covers human rights, health and safety, equality and discrimination, and competence

### **Objectives:**

### Safety:

- Zero personnel injuries
- Zero material damages
- Implement quarterly safety campaigns and emergency response exercises
- Conduct HSE inspections and audits in accordance with annual audit plan

### Occupational health:

• Zero work related sick leave cases

#### **Human rights:**

· Zero labour rights cases

### **Equality and discrimination:**

- Zero cases of discrimination
- Implement actions to ensure equality related to gender, age, ethnic origin, nationality, disability, sexual orientation, religion, or political opinion



### **Human rights**

(WEF theme: "Ethical behaviour")

("Act relating to enterprises' transparency and work on fundamental human rights and decent working conditions (Transparency Act)"

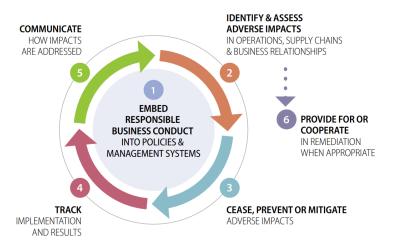
#### **Background**

Historically, we have operated in the UK and Scandinavia, countries that are considered as relatively low-risk areas regarding human rights.

As our business expands globally, and our suppliers to a larger extent are fabricating components globally, a higher focus on fundamental human rights and decent working conditions is needed.

#### Due Diligence for responsible business conduct

In accordance with the new Transparency Act, a due diligence has been conducted, following the OECD six-step process:



#### Step 1: "Embed responsible business conduct"

The 'Code of Conduct' is published internally on SharePoint and at our website. It states the policies for maintaining high ethical standards and integrity.

Responsible business conduct is embedded in policies and in the management system and covered aspects that are relevant for own operations, supply chain, and other business relationships.

### Step 2: "Identify and assess adverse impacts"

We have undertaken a broad scoping exercise to identify areas of the business, its operations and relationships, including supply chains, where risks are most likely to be present and most significant.

### Step 3: "Cease, prevent or mitigate adverse impacts" Preventive measures are based on the responsible business conduct risk assessment. A detailed procedure is under development.

### Step 4: "Track implementation and results adverse impacts"

The following measures are taken:

- Whistle-blower function
- Reporting routines own personnel
- Reporting of complaints and nonconformities
- Response time for inquiries
- Audits

#### Step 5: "Communicate how impacts are addressed"

As required in the Transparency Act, §5, relevant information will be made available in accordance with the law.

### Step 6: "Provide for or cooperate in remediation when appropriate"

If we identify that the company has caused or contributed to actual adverse impacts, such impacts shall be addressed by providing for or cooperating in their remediation.

Further details are provided in 'Annex H Transparency Act – Due Diligence'.

### **Health and safety**

(WEF Theme: "Health and Well-Being")

### Safety management system

The 'Fred. Olsen HSE Manual' is the governing document for all our activities. It specifies the safety performance standards and safety requirements within each hazard area.

A comprehensive safety management system has been implemented for the wind farms, consisting of procedures, work instructions, risk assessments, emergency response, and incident reporting system.

#### **HSE** incidents

In 2022, we had no lost time incidents. We experienced five minor personnel incidents - four First Aid Cases and one Medical Treatment Case.

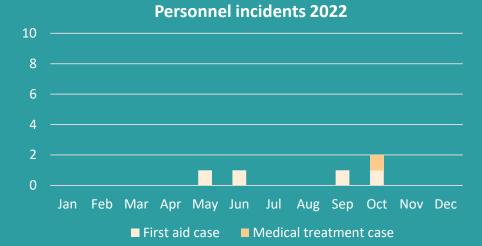
Total Recordable Incident Frequency (medical treatment cases and above) was 0.4. The SafetyOn industry benchmark is 0.7.

### Occupational illness and sick days

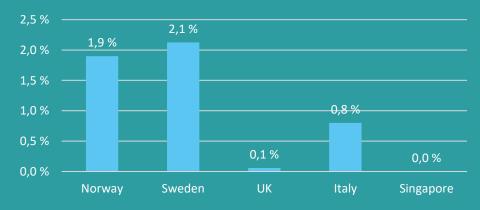
There were no reported cases of occupational illness.

The sickness rate was 1.3% in total for the company.

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### Sick days per country in 2022 (total 1.3 %)



### **Equality and anti-discrimination**

(WEF theme: "Dignity and Equality")

(Equality and Anti-Discrimination Act, §26 – "Likestillings- og diskrimineringsloven, §26 Aktivitets- og redegjørelsesplikten")

#### **Policies**

Our Code of conduct states:

"... we do not accept discrimination on the basis of gender, pregnancy, leave in connection with childbirth or adoption, care responsibilities, ethnicity, religion, belief, disability, sexual orientation, gender identity, gender expression, age, or other significant characteristics of a person".

#### Risk assessment - equality and anti-discrimination

We have undertaken an assessment of the risks related to discrimination or other barriers to equality.

The most significant potential risks are:

- 1. Gender imbalance
- 2. Ethnic, religious, cultural, or national background
- 3. Pregnancy, maternity, paternity leaves
- 4. Age discrimination
- 5. Physical disabilities

#### **Gender balance**

By the end of 2022, we had the following gender balance:

Employees	Total	NO	SE	UK	IT	SG
Male	61	29	12	13	6	1
Female	24	10	2	10	2	0
Total	85	39	14	23	8	1
Female (percentage)	28 %	26 %	14 %	43 %	25 %	0 %
Male (percentage)	72 %	74 %	86 %	57 %	75 %	100 %

### Pay conditions by reference to gender

Pay and renumerations are determined in individual work agreements and varies depending on responsibilities, education, age, and experience. The individual's pay is confidential, and information about it only available to HR, the employee, and his/her line manager.

On request and on a case-by-case basis, persons or entities meeting the criteria in the 'Equality and Anti-Discrimination Act', Section 26a can be given access to pay information.

The employees are grouped in categories:

Employee category	Total	Male	Female	%
Level 1 managers (CEOs)	2	2	0	0 %
Level 2 managers (head of dept/function)	11	10	1	9 %
Level 3 managers/office personnel	59	40	19	32 %
Service Technicians	13	11	2	15 %

A review has been undertaken to analyse whether there is gap in pay between male and female employees. Differences in pay exists due to responsibilities, education, years of relevant experience, and general job market value. The analysis showed that there are no gaps due to gender in comparable functions

#### Other barriers to equality

Reference is made to the risk assess – equality and antidiscrimination

#### Use of involuntary part-time work

There are no cases of involuntary part-time work in our company.

Measures to mitigate the risks are listed in the risk assessment.

#### The most relevant actions are:

- Seek to achieve-a balanced group of female/male employees when possible
- Encourage recruiting candidates of different backgrounds
- Zero tolerance towards discrimination
- Emphasise policy to encourage diversity

Further details provided in 'Annex G Activity duty – equality and anti-discrimination', published at <a href="mailto:fredolsenrenewables.com/about-us/sustainability">fredolsenrenewables.com/about-us/sustainability</a>.

### **Competence**

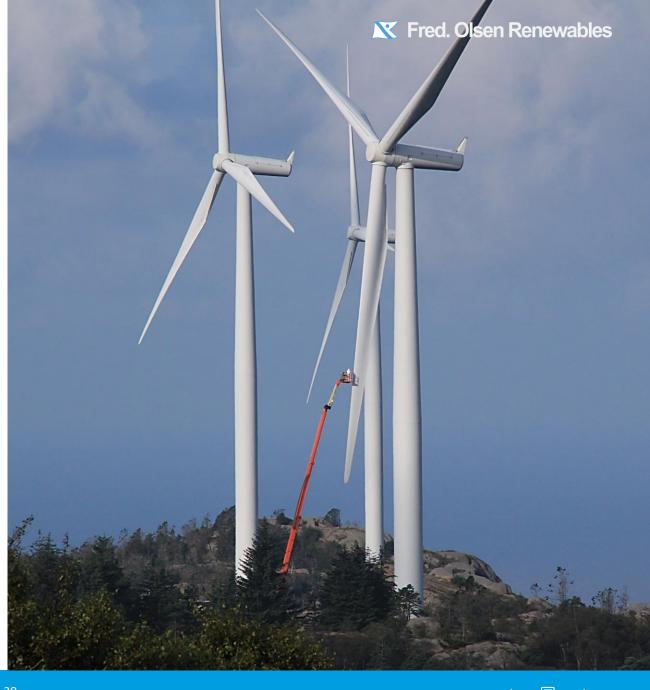
(WEF Theme: "Skills for the Future")

All personnel shall be trained and competent for the work they do.

Both the person conducting the work and his/her manager are responsible for ensuring that he/she has adequate training and certifications to perform the work.

Competence requirements are covered in the job descriptions.

Mandatory safety training is specified in the HSE Manual to ensure that all personnel have the necessary knowledge and skills to safely perform their work.





### **Key Performance Indicators - Social**

SOCIAL KPIs	2022	2021	2020
Personnel incidents (Medical Treatment Cases and above)	1	4	3
Occupational illness cases	0	2	0
Sickness absence rate	1.3 %	2.3%	2.9%
Gender balance (female ratio)	28% (24 of 85)	23% (17 of 73)	29% (17 of 58)
Labour rights cases	0	0	0

#### **Comments:**

- Personnel incidents: Although we experienced a positive trend in 2022, our objective is 'Zero incidents'. Consequently we do not consider the objective as reached
- Occupational illness rate: Positive trend
- Sickness absence rate: Positive trend
- Gender balance (female ratio): Improved from 23% to 28%

# **GOVERNANCE**



### **Scope and objectives - Governance**

### **Applicable UN Sustainability Development Goals:**







This chapter covers board composition, stakeholders, ethical behaviour, and risk management.

### **Objectives:**

### Compliance:

• Zero cases of noncompliance with laws and regulations

#### **Ethical behaviour:**

• Zero cases of corruption and bribery

### **Board composition**

(WEF Theme: "Quality of governing body")

The board consists of the following members:

- Anette S. Olsen (Chairman of the Board)
- Fred. Olsen
- Richard Olav Aa

The board's activities are conducted in compliance with applicable Norwegian laws and regulations.



### **Stakeholders**

(WEF theme: "Stakeholder engagement")

A stakeholder is a person or organisation that can affect, be affected by, or perceive themselves to be affected by a decision or activity.

The table lists the principal stakeholders, primary and secondary external stakeholders, and internal stakeholders.

This stakeholder list is general and covers multiple scenarios and situations. Depending on the matter at hand, relevant stakeholders will be listed on a case-bycase basis.

Principal stakeholders:	External stakeholders - primary:	External stakeholders - secondary:	Internal stakeholders:
Bonheur Board	Grid operators	Environmental groups	Employees
Fred. Olsen Renewables Board	Authorities	News media	Employees' next-of-kin
TRIG (minority ownership)	Local communities	Social media	Subcontractor personnel
Aviva (minority ownership)	Landowners	The public	Fred. Olsen & Co
Wind Fund 1 (minority ownership)	Suppliers		Sister companies
Shareholders	Subcontractors		
	Insurers		

### **Risk management**

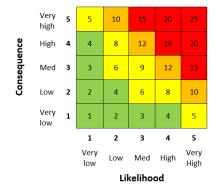
(WEF theme: "Risk and opportunity oversight")

Risk management is an integrated part of all our work processes. A risk management system has been established and implemented consisting of:

- Corporate risk database for the enterprise risks
- Climate risk assessment
- ESG risk assessment
- Risk register for the wind farms, covering relevant operational risks
- Operational risk assessments
- Safe Job Analyses (SJA) for task specific risks
- 'Take2' last minute point-of-work risk assessment

Opportunities are identified and evaluated as part of business processes.

See chapter Environment > Climate risks (page 18) for description of the climate risk assessment and ESG risk assessment.





### **Ethical behaviour**

(WEF theme: "Ethical behaviour")

### Anti-corruption and anti-bribery

The 'Code of Conduct' states our policies for ethical behaviour. It is published in the management system, available for all employees. The Code of Conduct is subject to annual reviews and updates.

### Protected ethics advice and reporting mechanism

Reporting routines for 'whistle-blowing' is in place, covering national regulations, what can be reported, whom to report to, how to do it, and how the organisation shall handle the reports.

Information about the whistle-blowing procedures is part of the e-learning courses on compliance.

#### **Compliance training for all employees**

As part of communication and implementation of the policies, our employees undertake the following mandatory compliance related e-learning courses (completed percentage in brackets):

- GDPR awareness (91%)
- Code of Conduct (83%)
- Corporate Social Responsibilities (85%)
- Cyber Security Awareness (79%)
- Policy & anti-corruption/anti-bribery (93%)



### **Key Performance Indicators - Governance**

GOVERNANCE KPIS	2022	2021	2020
Corruption/bribery cases	0	0	0
Corporate fines	0	0	0
Whistle-blowing cases	0	0	0

### Remarks:

No reported cases

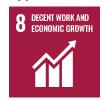
# **PROSPERITY**





### **Scope and objectives - Prosperity**

### **Applicable UN Sustainability Development Goals:**







This chapter covers wealth creation, continuous improvements, new technologies, tax payments, and community contributions.

### **Objectives:**

#### Financial:

The financial objectives are specified as part of the annual budget process (confidential).



### **Wealth creation**

(WEF Theme: "Employment and wealth generation")

### **Number of employees**

85 persons were permanently employed in Fred. Olsen Renewables at the end of the year.

### Man-years generated

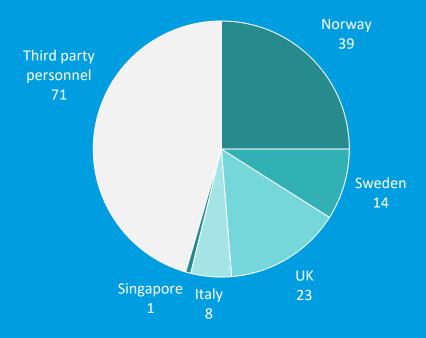
A total of 286 000 hours were worked in 2022. This corresponds to approximately 156 man-years generated.

Of these, 71 man-years were conducted by third party personnel. Management of the UK sites is outsourced to a contractor. In addition, service providers, consultants, temporary employees, and technical specialists are engaged when needed.

#### **Financial results**

For financial results, reference is made to the quarterly and annual reports at www.bonheur.no.

### 156 man-years generated in 2022 (85 employees + 71 third party man-years)





### **Continuous improvements**

(WEF Theme: "Innovation of Better Products and Services")

Operations Department is managing a pipeline of continuous improvement programmes optimise energy output, reduce production losses, and optimise the cost base through technical innovations and improved operational processes.

Notable projects in 2022 were:

- Research project into the Yaw System of the nacelles with the aim to better align the turbine against the wind to increase yield. The project will continue into 2023
- Implementation of more efficient work processes, allowing for local teams to perform component exchanges, minimizing production losses, and decreasing the repair costs
- The application of artificial intelligence and machine learning in performance management and analytics continued in 2022 and will do so into 2023. The aim is to develop a Lifetime Management solution to estimate remaining useful lifetime of the assets
- Participation in an innovation project with NGESO (UK grid) to pilot a new balancing mechanism (B6 Pathfinder) as part of modernizing grid management. The sites are instrumented with hardware allowing higher reactivity allowing the grid to absorb more supply from renewable energy sources

Annual gain or savings from all improvement projects are estimated to be 8 460 000 NOK.



### **New technologies**

(WEF Theme: "Innovation of Better Products and Services")

Marine floating solar: As part of developing floating solar as a clean energy source, we have entered a bilateral agreement with the Solar Energy Institute of Singapore (SERIS).

The aim is to develop unique competence in developing, building, and operating floating photovoltaic (FPV) systems in marine/salt-water conditions.

This work has also been expanded to include additional partners, typically FPV technology providers that want to test and qualify their technology for use in marine conditions.

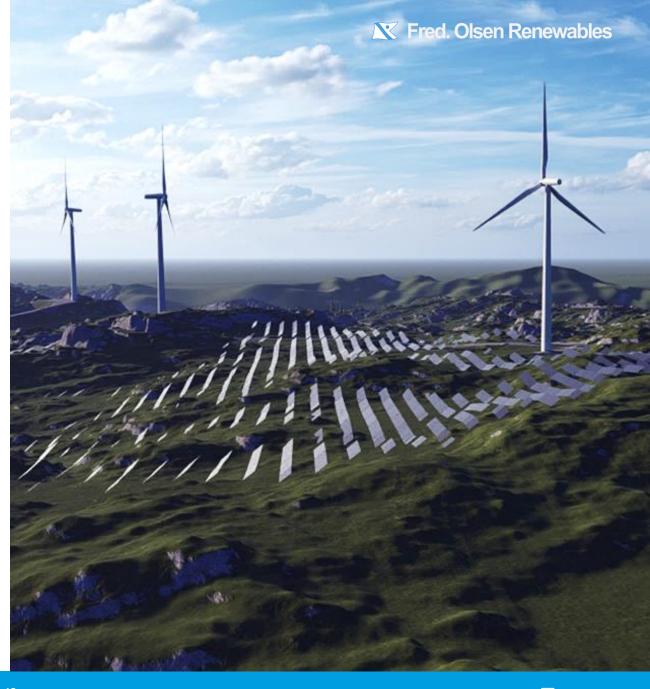
In 2022, we led an EU-supported consortium (through the Horizon 2020 programme) that will demonstrate an innovative technology for FPV in offshore conditions (the "BOOST" project). Our own technology development is focused on effective and cost-efficient mooring and anchoring of large-scale FPV systems.

**Hybrid onshore wind/solar**: To optimise land and infrastructure usage for renewable energy, we seek to develop hybrid power plants through combining solar and wind technologies.

we began investigating sites for both wind and solar in combination, seeking to develop a hybrid power plant.

A hybrid power plant could increase power production from a wind power regulated area with 25%, introducing solar at the same area.

A hybrid powerplant will also allow a higher utilisation of the grid at site and the export grid. Solar power requires high grid capacity per produced power. Hybrid technology will allow more power from renewables with less grid infrastructure.



### **Tax payments**

(WEF Theme: "Community and Social Vitality")

Society contributions were made through tax payments to the governments, divided in social security tax, property tax and corporate tax.

Total tax payments to Norway, Sweden, UK, and Italy were 732 million NOK in 2022.

For comparison, we paid 228 million NOK in 2021 and 215 million NOK in 2020.

Note that the indirect society contributions through our employee's income tax and other type of taxes are not included in the figures.

Type of tax	Norway	Sweden	UK	Italy	
Social security tax	8 943 260 NOK	3 152 883 NOK	2 624 989 NOK	1 617 855 NOK	
Property tax	4 175 436 NOK	5 108 380 NOK	66 125 104 NOK		
Corporate tax	88 039 789 NOK		551 869 816 NOK		
Sum:	101 158 485 NOK	8 261 262NOK	620 619 909 NOK	1 617 855 NOK	
Total:	731 657 511 NOK				

### **Community contributions**

(WEF Theme: "Community and Social Vitality")

The community benefit funds are part of the ongoing commitment to communities in the vicinity of the wind farms.

Total contribution to local communities were 10,9 million NOK in 2022.

For comparison, the contributions were 10 million NOK in 2021 and 6 million NOK in 2020.

The purpose of the funds is to enable the local societies to carry out improvements to their area in any sphere.

	Norway	Sweden	UK
Expenditures to local communities	110 000 NOK	511 519 NOK	10 319 148 NOK
Total:	10 940 667 NOK		



### **Annexes**

```
Annex A Materiality assessment 1)

Annex B Climate risks and opportunities 1)

Annex C Climate risk assessment 1)

Annex D ESG risk assessment 1)

Annex E GHG emission calculations 1)

Annex F EU Taxonomy assessment 1)

Annex G Activity duty – equality and anti-discrimination ("Aktivitets- og redegjørelsesplikten") 2)

Annex H Transparency Act – Due Diligence ("Åpenhetsloven – aktsomhetsvurdering") 3)
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#### Remarks:

- 1) Internal document
- <sup>2)</sup> Published at <u>fredolsenrenewables.com/about-us/sustainability</u>
- <sup>3)</sup> Available on request, reference to Transparency Act ("Åpenhetsloven"), § 6



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