

Eidsiiva.

# Green Finance Report.

2022

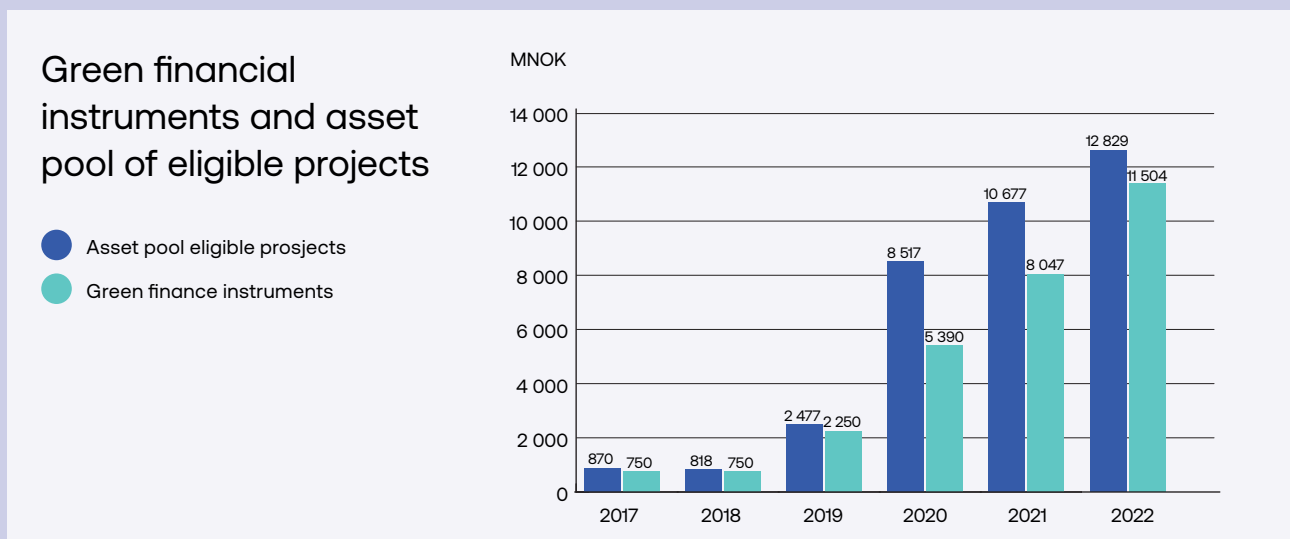




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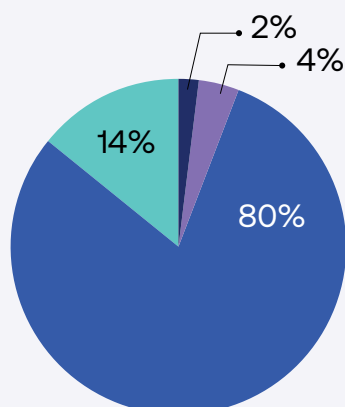
# Executive summary as at 31 december 2022



Key information about Eidsiva and assets		31.12.2022
Energy supplied through distribution grid in 2022		23 TWh
Number of grid customers at year-end 2022		970 000
Wind power and hydropower connected to distribution grid		12.8 TWh/yr / 3 000 MW
Wind power and hydropower connected to distribution grid since 2017		1.5 TWh/yr / 464 MW
New wind turbines / large hydropower turbines connected since 2017		98 wind turbines / 4 large hydro turbines
Solar panels connected to grid since 2017		4 300
Installed capacity ( $W_p$ ) of solar panels connected to grid		93 MW
Shares of renewables in district heating in 2022		98.5%
District heating in 2022		454 GWh
Number of active fibre customers		80 200
EU taxonomy eligible activities: Turnover / Capex / Opex		88% / 80% / 91%
Indirect ownership of hydropower		6.3 TWh/yr
Number of individual and screened projects in asset pool		5 551

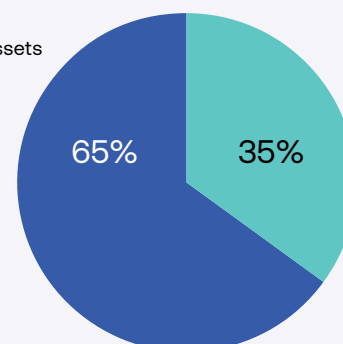
## Distribution of asset pool

- Hydro and wind power
- Distribution grid
- Telecommunications
- District heating



## Green finance instruments

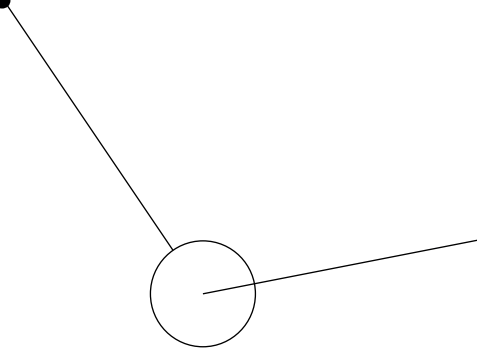
- Financing assets
- Refinancing assets



### Basic information

Green Finance Framework applied	Green Finance Framework dated November 2021 – see enclosed page 36 and forward.
Replaced Green Finance Frameworks	Green Finance Framework dated October 2019 and Green Bond Framework dated September 2017.
External assurance – Green Finance Report (2022)	PwC
External verifier – Green Finance Framework	Cicero Shades of Green (valid 3 years from 18 November 2021).
Report publication date	14.04.2023
Frequency of reporting	Annual
Next reporting planned for	April 2024
Reporting period	Reporting for calendar year 2022. Comprises eligible projects acquired, under construction or in operation from 2016 until year-end 2022.
Reporting approach	Portfolio-based reporting. Asset pool is dynamic and presented on a rolling basis.
Reporting currency	Norwegian kroner (NOK)
Look-back-period	The environmental benefits of our Green Projects erode slowly. A maximum look-back period of three calendar years from the time the project was acquired or put into operation is used when creating the asset pool.
Financing/refinancing	Financing defined as green projects acquired or put into operations less than 12 months prior to debt issue.
Major changes since previous reporting	No major changes from the reporting for 2021. Telecommunications (fibreoptical networks) included in the new framework from November 2021 as eligible category. Telecommunication projects included in 2021 from 2018 retroactively. Projects loans (fibreoptics) from Nordic Investment Bank (NIB) also included retroactively from 2018 in 2021. District heating included in asset pool from 2021 with look-back period of three years. Reporting on overall categories and not on individual projects from 2021.

# Eidsiva Energi and Green Finance.



At a time of increasing focus on climate issues and energy efficiency, it is more important than ever for Eidsiva to be out there leading the way.

Eidsiva invested heavily in sustainable projects in 2022. With NOK 7 350m in green bonds outstanding at the end of the year, Eidsiva maintained its position as Norway's second-largest issuer of green bonds in the Norwegian market. The Nordic Investment Bank also finances many of our eligible projects through various loans.

Eidsiva has three business areas: Power Grid, Bioenergy and Broadband. Our infrastructure keeps the lights on, turns waste into hot water for homes and businesses, and provides reliable data connections for those working from home. The companies in the Eidsiva group have a major role to play in the green transition in and around Oslo.

Eidsiva is also invested in renewables through its 43.5% stake in Hafslund Eco Vannkraft, Norway's second-largest hydropower producer.

Elvia distributes power to around 2 million Norwegians across 970 000 accounts in south-eastern Norway. It is responsible for a supply area spanning some 50 000 km<sup>2</sup>, the largest in Norway, with 66 000 km of power lines. Elvia is working hard to improve and expand the power grid and facilitate the continued electrification of everyday life.

Eidsiva Bioenergy is one of Norway's largest district heating companies, supplying more than 400 GWh a year from 15 plants in south-eastern Norway. Energy and heat are recovered from resources that cannot be used for anything else and would otherwise have been lost.



District heating also plays an important role in easing the load on the power network.

Eidsiva Bredbånd supplies fibreoptic broadband to around 80 000 customers, including households, businesses, public bodies, industry and housing companies. The company connects new customers to the fibre network and aims to make the transmission and use of large quantities of data more secure and energy-efficient.

Eidsiva's first green bond, issued in 2017, matures in 2023.

Although Norway's implementation of the EU taxonomy has been postponed until 2023, Eidsiva has been reporting in line with the Norwegian authorities' recommendations for the taxonomy since the 2020 financial year. As for 2021,

this year's report includes simplified reporting against the EU taxonomy.

Eidsiva is delighted to see investors showing strong interest in financing the energy transition. We will continue to work on delivering high-quality services and supporting the transition to a greener and more sustainable future.


**Anne Mette Askvig**

*Chief Financial Officer – Eidsiva Energi, 11. April 2023*

# Our Green Finance Framework











Eidsiva updated its Green Finance Framework in 2021. Our first Green Finance Framework was launched in 2017 and updated in 2019. The framework was expanded in 2021 to reflect the breadth of Eidsiva’s portfolio of sustainable projects across its three business areas and its holding in Hafslund Eco Vannkraft. The framework is based on the Green Bond Principles published by the International Capital Market Association (ICMA) as part of its work on promoting well-functioning capital markets. [Our updated framework is available here](#)  and also enclosed on the pages 36-55

Telecommunications (fibreoptic networks) and clean transportation were included retroactively as new eligible categories with effect from 2021.

Cicero Shades of Green performed an independent evaluation of our framework in 2021, as in 2017 and 2019. The new framework was rated Dark Green, with a governance score of Good.

[Cicero’s independent review is available here](#) 

Category (ICMA)	Eligible Green Projects	UN Sustainable Goal	Potential Impact
<b>Energy efficiency</b> 	<ul style="list-style-type: none"> <li>o Connection of renewable energy to distribution grid</li> <li>o Upgrading distribution grid</li> <li>o Smart meters and smart grids</li> <li>o Telecommunications networks</li> <li>o District heating and cooling</li> <li>o Distribution of district heating and cooling</li> <li>o Production of heat/cooling from waste heat</li> </ul>		<ul style="list-style-type: none"> <li>o Added distribution capacity</li> <li>o SAIDI (System Average Interruption Index)</li> <li>o Kilometres fibreoptic network</li> <li>o Number of new optic fiber customers</li> <li>o Added generation capacity</li> <li>o Actual annual energy capacity</li> <li>o Annual reduction or avoided GHG emissions</li> </ul>
<b>Renewable energy</b> 	<ul style="list-style-type: none"> <li>o Hydro power and related infrastructure</li> <li>o Wind power and related infrastructure</li> </ul>		<ul style="list-style-type: none"> <li>o Added renewable capacity</li> <li>o tCO<sub>2</sub> emissions avoided</li> <li>o Actual annual energy generation (MWh)</li> </ul>
<b>Clean transportation</b> 	<ul style="list-style-type: none"> <li>o Infrastructure for zero-emission transport such as electric vehicles and vessels</li> </ul>		<ul style="list-style-type: none"> <li>o Number of installed charging stations for electric vehicles and vessels</li> </ul>

# Green Finance Activities in 2022

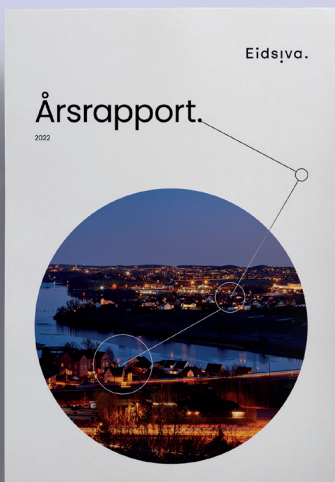
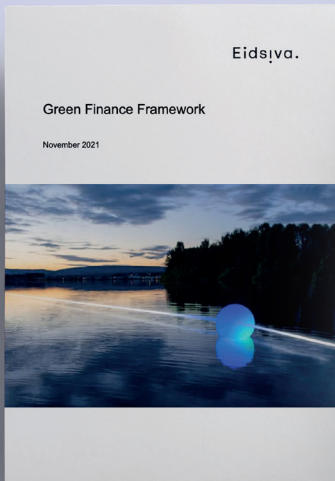
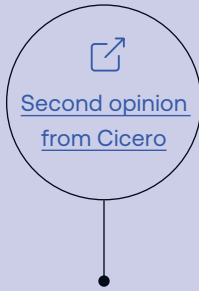
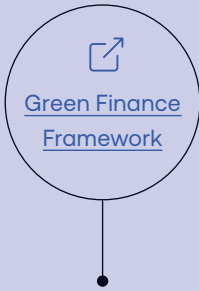
Eidsiva issued three new green bonds and took out a new green bank loan and a new loan from the Nordic Investment Bank during the year to finance power distribution infrastructure in the Oslo area. None of its green financial instruments matured in 2022.

Eidsiva entered into an agreement during the year which links sustainability targets to an existing syndicated credit facility with a limit of NOK 2 500m. A new bilateral facility with a limit of NOK 500m linked to the same sustainability targets was also agreed during the year. The sustainability targets relate to Eidsiva's sustainability plan and confirm the company's ambitions in this area. They take the form of KPIs which will be reconciled annually with the agreed target and progress in the loan agreements through to 2026. Depending on performance each year, the credit margin may be stepped up or down or remain at the agreed level. The KPIs relate to the achievement of targets for the company's initiatives in three areas: relative reductions of Scope 1 and 2 emissions (no

increase), the addition of new district heating capacity, and a reduced lost-time injury rate for employees and suppliers.

All three KPIs were within the agreed levels in 2022, resulting in a reduction in the margin on Eidsiva's credit facilities.

**For further information on our work on sustainability; please find an overview on the next page:**



# Reporting 2022.



Under Eidsiva's Green Finance Framework, the following must be made available to the company's lenders at least yearly:

## 1) An Allocation Report

- o Amounts invested in each of the green project categories defined in the Green Finance Framework and the share of new financing versus refinancing.
- o Examples of green projects funded by green finance instruments.
- o The nominal amount of green finance instruments outstanding, divided into green bonds and green loans.
- o The amount of net proceeds awaiting allocation to green projects (if any).
- o Information on possible changes/developments in the EU Taxonomy Regulation and defined activities that may be of relevance for our green project criteria.

**2) An Impact Report** which aims to disclose the environmental impact of the green projects financed under the framework. Impact report calculations will to some extent be aggregated and, depending on data availability, be made on a best intention basis. For projects under construction, calculations may be based on preliminary estimates. Eidsiva strives to apply the recommendations stated in the Nordic Position Paper when applicable.





## Reporting policies – general information

The project portfolio will be assessed before issuing green financial instruments with the aim of securing access to green eligible projects in the coming calendar year.

To ensure transparency and accountability in the selection of green projects, Eidsiva has established an internal Green Finance Committee, which is responsible for reporting and the evaluation and selection process. The committee had ten meetings in relation to the 2022 reporting and selection and evaluation process.

PwC has provided a limited assurance report on Eidsiva's 2022 reporting – see page 32.

## Reporting policies – allocation report

For all investments, amounts are stated following deductions for customer financing, contributions from government bodies (capital contributions) and contributions from co-investors in the projects.

Investments in power distribution infrastructure can sometimes meet the criteria for more than one of the categories in the Green Finance Framework. Eidsiva has used its best judgement in reporting on the various categories (e.g. connection of new power production, smart grids and general strengthening of the network).

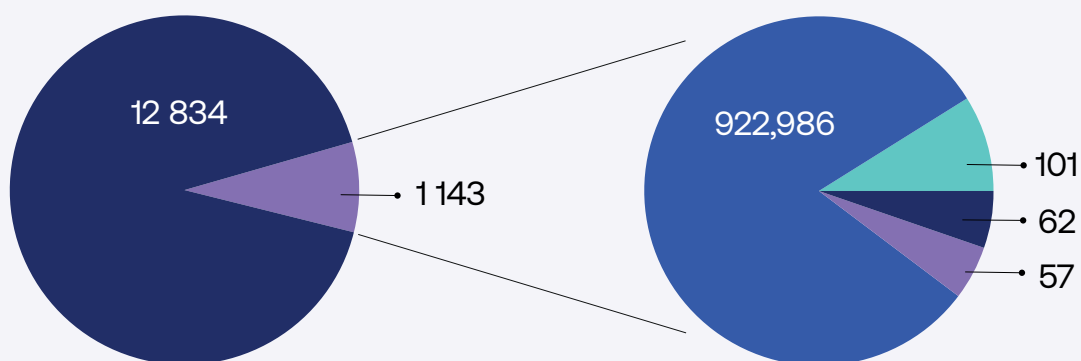
We have taken the additional step of deducting estimated expenditure related to assets using SF6 gas from eligible green projects with effect from 2021. SF6 gas is a highly effective insulator when used in circuit breakers and is necessary for efficient functioning of our network. Small volumes of SF6 can leak from our network, and

SF6 is a greenhouse gas that is more than 23 500 times more potent than CO<sub>2</sub>. We have deducted expenditure identified in specific projects equivalent to around 8% of all capital expenditure in the distribution network in 2021 and 2022.

Eidsiva has drawn up a group policy for the screening and evaluation of projects [\[hyperlink\]](#) before they can be included in the asset pool. We have so far excluded 8% of eligible projects, equivalent to around NOK 1.1bn, due to our internal screening and evaluation criteria. At year-end, 5 551 projects had been screened and evaluated in accordance with this policy. A breakdown of our screening of the asset portfolio is shown below.

## Evaluation and selection of eligible projects (numbers in mNOK)

- Assets passing evaluation and selection
- Assets not passing evaluation and selection
- Assets that include SF6 gas
- Assets not passing internal technical criteria
- Other criteria
- HSE



Investments sold or scrapped during the year are deducted from historically invested amounts.

On 30 September 2019, Eidsiva Vannkraft was partially sold to Hafslund. Eidsiva currently has an indirect holding of 43.5% in these investments. Due to the sale, 56.5% of all investments for the period 1 January 2016 to 30 September 2019 have been deducted from the amount invested. Eidsiva has not included investments in new hydropower and wind power projects after 30 September 2019, since these are financed by the majority shareholder Hafslund.

The reported value is for investments as at 31 December 2022 in the project categories, and not the amount committed to the project categories.



## Reporting principles – impact report

We have not yet included any specific quantitative measures in the impact report for our investments in the distribution network. Components in the distribution network are replaced towards the end of their useful life to maintain or increase efficiency and service quality. In other cases, network infrastructure and management technology are updated to support the integration of renewable energy and new consumption of energy. The investments are often part of a larger refurbishment project where parts of the investment are not directly linked to a reduction in energy use but to the security of supply. When upgrading the distribution network from 66 kV to 132 kV, it is estimated that transmission losses are reduced by 75% with all other variables unchanged. New transformers will also reduce energy losses and operate more quietly than older ones. The section on the distribution network therefore includes qualitative information on how the investments enable the electrification of society.

For our investments in fibreoptic networks, we have not included any measures to address carbon emission reductions or other environmental impact measures. The baseline against which the environmental impact can be measured is not obvious. New fibre networks primarily replace legacy networks in addition to providing digital networks to customers without a fixed-line connection. The number of new

connections to fibre networks and additional km of fibre networks are reported as alternative indicators.

The district heating and cooling systems are fundamentally local/regional and not interconnected on a Norwegian or Nordic basis, although the fuels used (bio, solid waste, fossil) may often be traded over long distances. The impact for district heating is calculated as new connections of end-users (GWh/yr) in addition to avoided emissions per year from the production of heating and cooling. When calculating avoided emissions (tonnes CO<sub>2</sub>e), we have only included avoided emissions from alternative heating sources before the investment as the baseline. We have not included end-users' replacement of alternative energy in Eidsiva's calculation of avoided emissions.

The impact on Eidsiva's investments in renewable energy (hydropower and wind power) is compared against a baseline where no such investment exists. The impact is calculated as added new production (GWh/yr) in addition to avoided emissions per year (tonnes CO<sub>2</sub>e). The baseline is a grid factor of 315 g CO<sub>2</sub>/kWh for the EU mainland, UK and Norway as the default baseline emission factor (Nordic Position Paper on Green Bonds Impact Reporting 2020; no updated document for 2021 and 2022 is published).





## Allocation report

At the end of 2022, Eidsiva had ten green bonds outstanding, one green bank loan and six loans from the Nordic Investment Bank (NIB) financing eligible projects as defined in Eidsiva's Green Finance Framework.

Three bonds with a total value of NOK 2 000m were added to Eidsiva's portfolio of green finance instruments in 2022, along with a loan from NIB with a value of NOK 500m and a loan from the bank DNB with a value of NOK 1 000m to finance projects in the eligible asset pool.

<b>Green Finance Instruments - NOK million</b>	<b>Sum</b>
Green Bond 2017-2023 (ISIN: NO0010806862 - EIEN24ESG)	<b>-750</b>
Green Bond 2019-2029 (ISIN: NO0010866627 - EIEN29ESG)	<b>-1 000</b>
Green Bond 2019-2026 (ISIN: NO0010866619 - EIEN28ESG)	<b>-500</b>
Green Bond 2020-2025 (ISIN: NO0010894637 - EIEN33ESG)	<b>-900</b>
Green Bond 2020-2030 (ISIN: NO0010894645 - EIEN34ESG)	<b>-1 000</b>
Green Bond 2021-2028 (ISIN: NO0011002610 - EIEN35ESG)	<b>-600</b>
Green Bond 2021-2031 (ISIN: NO0011002628 - EIEN36ESG)	<b>-600</b>
Green Bond 2022-2026 (ISIN: NO0011204273 - EIEN37 ESG)	<b>-500</b>
Green Bond 2022-2026 (ISIN: NO0011204281 - EIEN38 ESG)	<b>-500</b>
Green Bond 2022-2032 (ISIN: NO0011204299 - EIEN39 ESG)	<b>-1 000</b>
Loan Nordic Investment Bank 2016-2031 (advanced measurement and control systems)	<b>-354</b>
Loan Nordic Investment Bank 2019-2029 (network improvements Oslo area)	<b>-800</b>
Loan Nordic Investment Bank 2019-2029 (fibre networks)	<b>-500</b>
Loan Nordic Investment Bank 2021-2031 (fibre networks)	<b>-500</b>
Loan Nordic Investment Bank 2021-2031 (network improvements Innlandet)	<b>-500</b>
Loan Nordic Investment Bank 2022-2033 (network improvements Oslo area)	<b>-500</b>
Green Loan DNB 2022-2023 (eligible green projects in asset pool)	<b>-1 000</b>
<b>Financed with green finance instruments</b>	<b>- 11 504</b>



Green finance instruments are allocated to new projects and refinancing roughly in the ratio of 65% to 35% respectively.

<b>Allocation: Investments – NOK million</b>							
(a) = adjusted numbers including 100% of former Hafslund Nett. Eidsiva Vannkraft included at 43.5% until 30 September 2019.							
	2017 (a)	2018 (a)	2019 (a)	2020	2021	2022	Sum
Energy efficiency – Distribution < 22 kV	636	631	884	1 012	900	893	<b>4 956</b>
Energy efficiency – Distribution > 22 kV	448	652	766	657	567	567	<b>3 657</b>
Energy efficiency – ICT	31	30	29	40	204	336	<b>671</b>
Energy efficiency – Smart grid	234	159	83	22	34	35	<b>567</b>
Energy efficiency – Other green projects	157	47	39	32	83	85	<b>443</b>
<b>Total distribution network</b>	<b>1 506</b>	<b>1 518</b>	<b>1 802</b>	<b>1 762</b>	<b>1 789</b>	<b>1 917</b>	<b>10 294</b>
Energy efficiency – District heating/cooling distribution	-	-	26	23	36	42	<b>128</b>
Energy efficiency – District heating/cooling from bioenergy	-	-	19	54	28	28	<b>129</b>
<b>Total district heating</b>	<b>-</b>	<b>-</b>	<b>45</b>	<b>77</b>	<b>65</b>	<b>70</b>	<b>257</b>
Energy efficiency – telecommunications (fibre)	-	-	804	407	298	240	<b>1 749</b>
<b>Total telecommunications</b>	<b>-</b>	<b>-</b>	<b>804</b>	<b>407</b>	<b>298</b>	<b>240</b>	<b>1 749</b>
<b>Total energy efficiency</b>	<b>1 506</b>	<b>1 518</b>	<b>2 651</b>	<b>2 247</b>	<b>2 152</b>	<b>2 227</b>	<b>12 300</b>
Renewable energy – Hydro and wind	339	148	42	-	-	-	<b>528</b>
<b>Total renewable energy</b>	<b>339</b>	<b>148</b>	<b>42</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>528</b>
Clean transportation	-	-	-	-	-	-	<b>-</b>
<b>Total clean transportation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total identified investments in eligible categories</b>	<b>1 845</b>	<b>1 666</b>	<b>2 692</b>	<b>2 247</b>	<b>2 152</b>	<b>2 227</b>	<b>12 829</b>
<b>Surplus of eligible projects – NOK million</b>							<b>Total</b>
Portfolio of green finance instruments							<b>-11 504</b>
Portfolio of identified and specified eligible projects							<b>12 829</b>
<b>Surplus of eligible projects</b>							<b>1 325</b>

# Impact report

## Impact reporting

(a) = adjusted numbers including 100% of former Hafslund Nett.  
Investments in former Eidsiva Vannkraft included at 43.5%.

	2017 (a)	2018 (a)	2019 (a)	2020	2021	2022
<b>Distribution network – entire supply area</b>						
Energy supplied to customers (TWh/yr)	24	24	23	22	24	23
Number of customers (thousands)	869	889	906	933	949	971
SAIDI (System Average Interruption Duration Index) (minutes)	73.5	153.8	95.1	123	87.9	73.4
<b>Telecommunications (fibre and broadband) – projects in asset pool</b>						
Size of fibreoptic network (km)	-	-	1 038	1 781	2 409	2 567
New connections – accumulated	-	-	9 360	13 860	17 872	18 867
Homes passed – accumulated	-	-	17 016	24 918	31 548	33 348
<b>District heating – projects in asset pool</b>						
Reduced emissions (tonnes CO <sub>2</sub> /yr) – switching to alternative fuel	-	-	-	-	200	700
New connections of customers (GWh/yr) – accumulated	-	-	13	27	39	50.8
New distribution network (km) – accumulated	-	-	10	20	30	35
<b>Renewable energy – projects in asset pool</b>						
Reduced annual emissions when complete (tonnes CO <sub>2</sub> /yr)	43 138	43 138	43 138	35 759	35 759	35 759
Increased annual production when complete (GWh/yr)	114	114	114	114	114	114

# Case study - presentation of selected major projects



## Elvia – Replacement of oil-filled cables

As part of a long-term programme to drain and/or remove all oil-filled cables from the power network, eight large and ten smaller oil-filled cable systems were replaced or phased out between 2017 and 2022.

While draining and/or removing these cables, the network was upgraded to cables insulated to 132 kV. They will therefore be ready to operate at this higher voltage once the associated supply areas are upgraded. Raising the voltage from, say, 47 kV to 132 kV helps eliminate oil leaks (especially important near watercourses), increases capacity in cases where the cross-section is larger (often a doubling with an unchanged operating voltage), and cuts transmission losses.

### Projects for 2022-23:

**Furuset:** Replacement of ten oil-filled cable systems with new cables (one-to-one). Estimated investment: NOK 21.1m. Expected completion: 2023.

**Strupe – Brødløs – Stangeberget:** Replacement of two 47 kV oil-filled cable systems with new PEX cables. Estimated investment: NOK 50m. Expected completion: 2023.

**Smestad – Lilleaker:** Two 47 kV oil-filled cable systems. Estimated investment: NOK 32.5m. Expected completion: 2023.

Total cost of these three projects: NOK 103.6m.



## Infrastructure for electrifying Oslo's bus fleet

Oslo's public transport authority Ruter has set a target of zero emissions from public transport by 2028, which means electrifying 1 200 busses. This brings a considerable need for charging capacity, including both trickle charging at depots and fast charging at termini. This has been a challenge, partly because many different locations have had to be considered, and partly because the amount of power needed is unclear given how charging technology is constantly evolving.

Building the bus solution of tomorrow places whole new demands on the city's infrastructure and efficient use of the power network. Well-functioning charging infrastructure is crucial, and this is where Elvia comes in. Working together, Ruter and Elvia have considered multiple options in the light of capacity in the network and identified the best locations and solutions.

The results of the project so far:

**Depot charging:** There are plans for around 60 MW of charging capacity, of which 35 MW is already in place and 25 MW is under way.

**End-of-line charging:** There are plans for around 20 MW of capacity, of which around 2 MW is in place.

**Alnabru substation:** Steps are being taken to enable charging projects.

The total cost of this project for Elvia is more than NOK 10m.





## Electrifying the Port of Oslo

The Port of Oslo is an important part of the city's climate strategy and has set a target of an 85% reduction in its carbon footprint. This includes both emissions from vessels and emissions onshore by 2030, and entails a major need to invest in the power infrastructure. To ensure sufficient capacity in both transformation and distribution networks, non-standard voltages are needed.

A knowledge of long-term plans is important for predicting the need for major network expansions. The customer's needs and Elvia's requirements have been clearly communicated to ensure good solutions. Open, early and balanced dialogue has been important in this context. Elvia has also signed up to the EIMar research project from research institute SINTEF.

The results of the electrification programme so far:

**Filipstadkaia:** 5 MW onshore power. Further expansion planned.

**Rådhusbrygge:** 4-6 MW in operation today for the ferry companies serving the Oslo fjord, including both onshore power and charging facilities. A further 2 MW has been ordered, which will take the substation to capacity.

**Sjursøya:** 2 MW onshore power.

Further projects in the electrification programme include requests and/or plans for charging infrastructure for containerships, oil tankers, carbon-capture storage vessels and cruise ships (Revierkaia and Filipstadkaia).

There is a major need for the electrification of all on- and offshore activities. Elvia is looking into the possibility of expanding the Bekkelaget substation to meet this need.

These projects are largely customer-financed.



## Replacing HFC cables with modern fibreoptic access networks

Upgrading to modern fibreoptic access networks is under way in 18 geographical areas in south-eastern Norway covering 9 400 customers currently connected to the hybrid fibre-coaxial (HFC) network. There are also plans to bring in a further 3 800 neighbouring properties. The work started in 2022 and is due to be completed in 2023. At the end of 2022, contracts had been signed to convert 90% of the customer base. Most of the contracts are in the construction phase.

The upgrade will bring lower energy consumption, more efficient data transmission, efficient operation and a standardised service offer.

### **Fibre investment in general**

The continued rollout of the fibre network in 2022 mainly involved expanding the access networks in rural areas. These projects were part-financed with local and central government funding awarded and administered by the National Communications Authority together with county and the municipal authorities. This model brings a gigabit network to previously unserved customers in sparsely populated areas, increasing the robustness of the digital infrastructure. The expansion of the network brings high-speed broadband to a wide range of customers, including new and existing businesses and those working from home.



## Upgrading bioenergy capacity to reduce fossil fuels in district heating

In 2020, Eidsiva Bioenergi purchased a district heating plant in Brumunddal. Originally built in 2010, the plant had reached its production potential based on bioenergy. District heating in the area therefore had a significant fossil fuel footprint. In 2021 and 2022, the share of renewables was 93.9% and 93.2% respectively.

In 2022, Eidsiva Bioenergi renovated the plant, upgrading its capacity from bioenergy to reduce the use of fossil fuels. This is in line with Eidsiva Bioenergi's target of 100% renewable raw materials/fuels by 2030. This is a continuous process, as new customers and growth in energy demand over time will lead to a need for bigger energy plants.

The renovated plant in Brumunddal reopened in October 2022 after seven months. The decision to rebuild during the summer season was made to minimise the need for alternative fuels such as electricity and fossil fuels during the construction period. The plant then entered a start-up

phase and is expected to deliver bioenergy at full capacity during the winter of 2023.

The baseload used at Brumunddal is wood chips, which are a locally abundant resource. This makes transport distances relatively short, ensuring lower emissions from transportation along with increased local value creation. District heating provides customers in Brumunddal with renewable energy. District heating plays an important role in the Norwegian energy system and is seen as having an important role in supporting electrification.

More than NOK 30m has been invested in the renovated plant. The installed capacity for bioenergy is now 9.5 MW, which is 2 MW more than before.

Due to the increase in capacity from bioenergy sources, a reduction of 500 tons of CO<sub>2</sub> emissions per year is expected.



Photo credit: Jo Kjetil Heggelund

# EU taxonomy and eligible categories in Green Finance Framework.








Based on an assessment of ICMA's project categories and economic activities in the EU taxonomy, we have mapped eligible categories in our Green Finance Framework against the corresponding economic activities in the EU taxonomy.

Digital solutions are a pre-requisite for achieving the EU Green Deal's goals across different sectors of the economy and society. The enabling potential has a contribution across all sectors of the economy, including manufacturing, transport, buildings, healthcare and public administration, that can only achieve carbon neutrality by accelerating their digital transformation. Despite the enabling potential,

the telecommunication sector has not yet been included in the EU taxonomy as a covered activity.

Eidsiva's broadband business has therefore not been included as a sustainable economic activity in our EU taxonomy reporting. Our telecommunication projects are still eligible as energy efficiency projects under the Green Bond Principles (ICMA) and according to our Green Finance Framework. Due to the enabling potential for digital solutions, we would encourage that the activity should be included as an aligned activity and not as a non-covered activity.

Category (ICMA)	Eligible Green Projects Green Finance Framework	EU Taxonomy Classification	
		Economic activity	NACE codes
<b>Energy efficiency</b>  	o Connection of renewable energy to distribution grid	o 4.9 Transmission and distribution of electricity	1. D35.13
	o Upgrading distribution grid		
	o Smart meters and smart grids	o 4.15 District heating/cool distribution	2. D35.30
	o District heating and cooling		
	o Distribution of district heating and cooling	o 4.24 Production of heat/cool from bioenergy	3. D35.30
<b>Renewable energy</b>  	o Hydro power and related infrastructure	o 4.3 Electricity generation from wind power	1. D35.11
	o Wind power and related infrastructure	o 4.3 Electricity generation from hydropower	2. D35.11
<b>Energy efficiency</b> 	o Telecommunications	o Not included in the EU Taxonomy	o Not included in the EU Taxonomy



Eidsiva published its first guidance on the EU taxonomy in its Green Finance Report for 2020. The reporting was expanded in the 2021 Green Finance Report with the first guidance on key performance indicators (turnover, capital expenditure and operating expenses). In our half-year 2022 financial report, the reporting on KPIs was updated using data as of 30 June.

During the second half of 2022, Eidsiva worked systematically on implementing the taxonomy throughout the organisation and acquired system support for monitoring, documentation and reporting. There is still some work remaining on assessing all aspects of the minimum social safeguards under the EU taxonomy before we can publish the proportion of KPIs for economic activities that are regarded as environmentally sustainable (taxonomy-aligned).

In December 2021, the Norwegian Parliament approved new legislation on sustainable finance. The new law will probably be incorporated into Norwegian law and the EEA Agreement in 2023. Until then, there are no obligations for Norwegian entities to publish EU taxonomy information.

The Ministry of Finance recommended in December 2022, however, that Norwegian entities should include EU taxonomy information in their reporting for 2022.

#### KPIs for Eidsiva's eligible activities as of 31 December 2022:

Economic activities	NACE-code	Category	Key - performance indicators (KPI's)			
			Absolute turnover (Mkr)	Absolute Capital expenditure (Mkr)	Absolute Operating expenses (Mkr)	
4.3	Production of Electricity from Wind Power	D 35.1.1	-	-	-	
4.5	Production of Electricity from Hydropower	D 35.1.1	-	-	-	
4.9	Transmission and Distribution of Electricity	D 35.1.3	Enabling	9 527	2 903	632
4.15	District Heating/Cooling Distribution	D 35.3.0	Enabling	84	52	4
4.24	Production of Heat/Cool from Bioenergy (Biomass, Biofuels)	D 35.3.0	Enabling	258	23	27
<b>A:</b>	<b>Taxonomy eligible activities</b>			<b>9 869</b>	<b>2 979</b>	<b>663</b>
<b>B:</b>	<b>Taxonomy non-eligible activities</b>			<b>1 284</b>	<b>754</b>	<b>64</b>
	<b>Sum A og B</b>			<b>11 153</b>	<b>3 733</b>	<b>727</b>
	<b>Proportionation (%) of KPI's which is associated with taxonomy eligible activities</b>			<b>88%</b>	<b>80%</b>	<b>91%</b>

Economic activities	DNSH - criteria (Do-no-significant-harm)					
	Climate change adaptation	Climate change mitigation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems
4.3	-	-	-	-	-	-
4.5	-	-	-	-	-	-
4.9	Y	Y	-	Y	Y	Y
4.15	Y	Y	Y	-	Y	Y
4.24	Y	Y	Y	-	Y	Y

Minimum social safeguards
-
-
Not completed yet

Operating expenses in the sense of the taxonomy include all costs directly related to fixed assets and not operating costs in the sense of the Norwegian Accounting Act. The taxonomy has been concerned with capturing all costs related to operating assets, regardless of whether these are capitalised or expensed.

# Reporting developments for 2023.

This report for 2022 is the second under the updated Green Finance Framework we published in November 2021.

The reporting against the EU taxonomy for 2022 is based on our assessment of the extent of eligible activities. After a complete due diligence on the minimum social safeguards, we will publish KPIs for environmentally sustainable activities (taxonomy-aligned activities) later in 2023.

We plan to start the process of updating our Green Finance Framework in late autumn 2023 (current framework valid until autumn 2024). We are considering a combined green and sustainability-linked financing framework.

We welcome any suggestions from investors in our green financial instruments on how we can improve our reporting and our framework.

**If you, as an investor in our Green Financial Instruments, have any suggestions on how we can improve our reporting, we welcome your feedback.**



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# Assurance Report of the independent auditor.







To the Green Finance Committee of Eidsiva Energi AS

## Independent statement regarding Eidsiva Energi AS' Green Finance Report

We have undertaken a limited assurance engagement to examine selected information in the Eidsiva Energi AS's (the «Company») Green Finance Report 2022, concerning the Company's Green finance instruments. The scope of our work was limited to assurance over:

- that an amount equal to the sum of identified investments in eligible categories for 2022 has been allocated to Green Projects, as described in the table «Allocation: Investments - NOKm» in the *Green Finance Report 2022*. The reporting criteria against which this information was assessed is the Company's *Green Finance Framework 2021/2022* per November 2021, chapter «Use of proceeds», available as an attachment to the *Green Finance Report 2022* (criteria).

Our assurance does not extend to any other information in the *Green Finance Report 2022*. We have not reviewed and do not provide any assurance over any other information reported, including estimates of sustainability impacts in the "Impact Reporting".

### Group Management 's Responsibility

Group Management is responsible for ensuring that the Company has implemented appropriate guidelines for green finance instrument management and internal control. The Group Management of the Company is responsible for evaluating and selecting eligible assets, for the use and management of proceeds, and for preparing an allocation report that is free of material misstatements, whether due to fraud or error, in accordance with the Company's *Green Finance Framework*.

### Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We apply the International Standard on Quality Management (ISQM) 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements*, and accordingly, maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Our Responsibilities

Our responsibility is to express a limited assurance conclusion on the selected information specified above in the assurance scope based on the procedures we have performed and the evidence we have obtained.

We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 revised – «Assurance Engagements other than Audits or Reviews of Historical Information», issued by the International Auditing and Assurance Standards Board. That standard requires that we plan and perform this engagement to obtain limited assurance

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Statsautoriserte revisorer, medlemmer av Den norske Revisorforening og autorisert regnskapsførerselskap



about whether the selected information in the *Green Finance Report 2022* is free from material misstatement.

A limited assurance engagement in accordance with ISAE 3000 involves assessing the suitability in the circumstances of Group Management's use of the *Green Finance Framework* as the basis for the preparation of the selected information in the *Green Finance Report 2022*, assessing the risks of material misstatement of the selected information in the *Green Finance Report 2022* whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the selected information in the *Green Finance Report 2022*. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and, among others, included an assessment of whether the criteria used are appropriate. Our procedures also included:

- Making inquiries primarily of persons responsible for the management of proceeds and the process for selection of eligible green projects
- Meetings and interviews with representatives from Eidsiva Energi AS responsible for the allocation reporting
- Obtaining and reviewing relevant information that supports the preparation of the allocation reporting
- Performing limited substantive testing on a selective basis of the selected information in the *Green Finance Report 2022* to test whether data had been appropriately measured, recorded, collated and reported

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the selected information in the *Green Finance Report 2022* has been prepared, in all material respects, in accordance with the *Green Finance Framework*.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that selected information in the *Green Finance Report 2022* is not prepared, in all material respects, in accordance with the reporting criteria in the chapter «Use of proceeds» in the *Green Finance Framework 2021/2022*.

Hamar, 11 April 2023  
**PricewaterhouseCoopers AS**

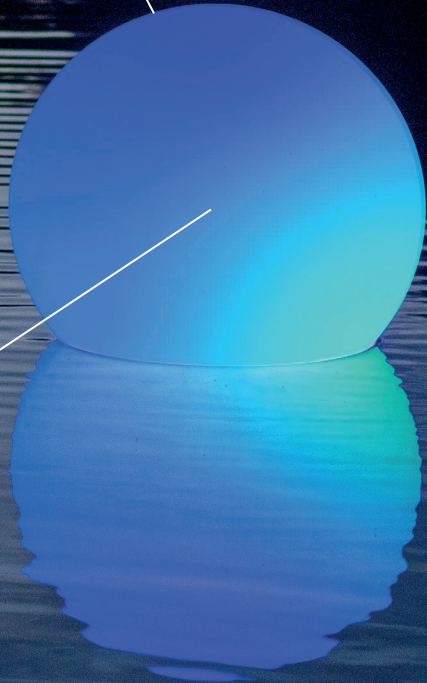
Pål Bakke  
State Authorised Public Accountant

(This document has been signed electronically)



Christian, 9år

# Green Finance Framework.



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# This is Eidsiva

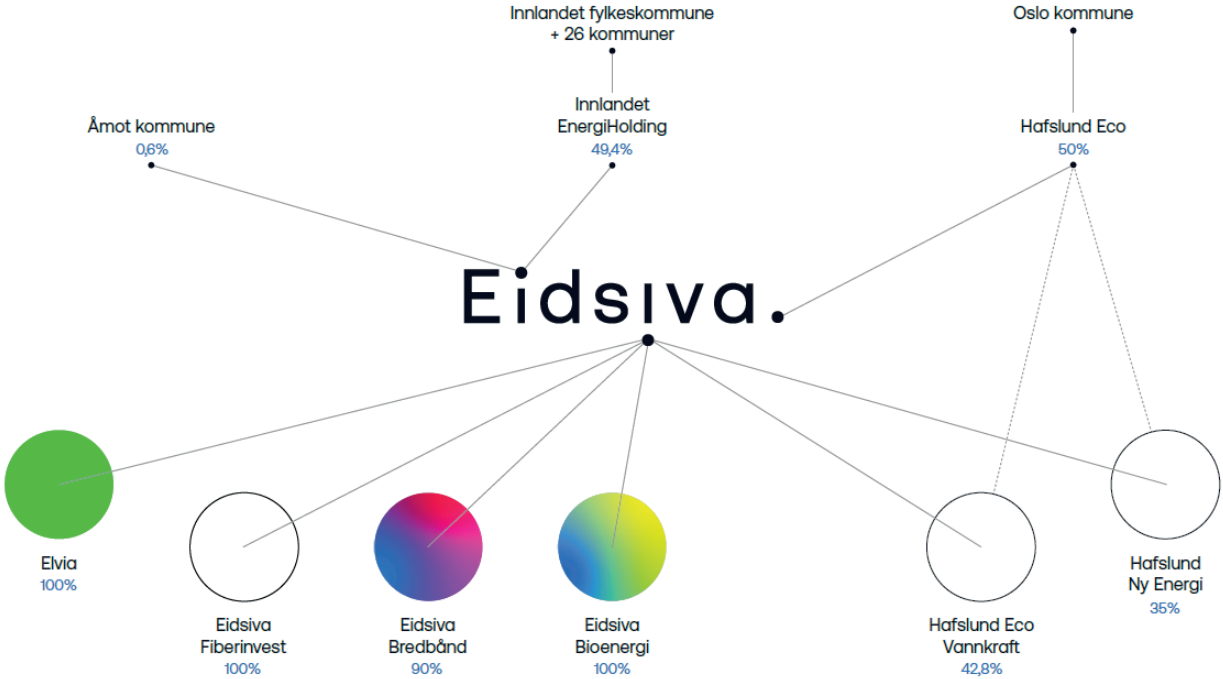
Renewable energy is a prerequisite for an environmentally sustainable future, and efficient infrastructure is a necessary enabler of well-functioning societies. In Eidsiva, our vision is to be a driving force for new opportunities, and we aim to create value for our stakeholders by providing new, smart, and sustainable solutions.

Eidsiva Energi AS (“Eidsiva”) is a Norwegian energy and infrastructure company with roots dating back more than 100 years. We deliver critical infrastructure within distribution of electricity, telecommunication network services, and district heating, enabling the sustainable solutions of tomorrow.

In 2019, we underwent a larger reorganization as Eidsiva and Hafslund Eco merged their operating business activities and created two new and

focused companies within distribution (Eidsiva) and hydropower production (Hafslund Eco).

After this transaction, Eidsiva became the largest distribution company in Norway and with significant ownership in hydropower production and electrification operations through Hafslund Eco Vannkraft and Hafslund Ny Energi. In addition, Eidsiva is among the largest district heating producers in Norway, and we are continuously growing our telecommunication network operations.



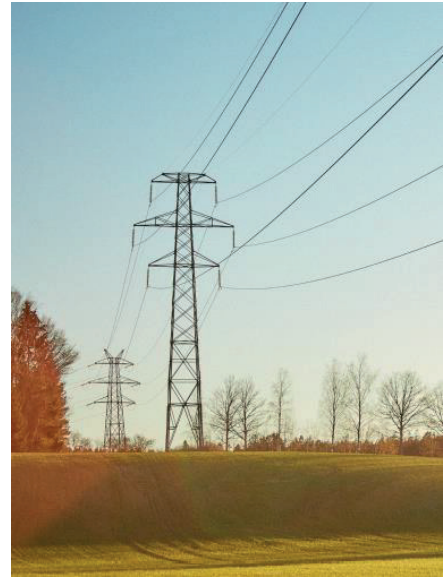
## Our businesses

### Elvia

Elvia was established in January 2020 via the merger of Eidsiva Nett and Hafslund Nett.

Elvia is active in the construction, operation, maintenance, and improvement of distribution networks.

The company has more than 930,000 customers and thereby supplies over 2 million inhabitants with electricity every day.



### Eidsiva Bredbånd

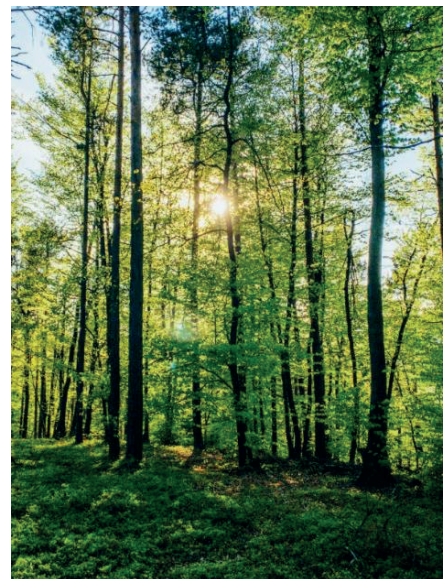
Eidsiva Bredbånd was established in 2004 and Eidsiva Fiberinvest was established in 2017, and is active in the construction, sale, and operations of high-speed fiber optic telecommunication networks to households, companies, and the public sector. The company has currently more than 84.000 customers where 72.000 customers are connected to fiber networks.

### Eidsiva Bioenergi

Eidsiva Bioenergi was established in 2008 and is currently the third largest provider of district heating and cooling in Norway.

The company's strategy is to solely use fuel sources that do not have alternative valuable uses, and approximately 99% comes from forestry waste and residues, recycled wood waste and other locally produced waste.

The focus on local sourcing and close relationships with our suppliers ensure we minimize the need for transport, while simultaneously solving the need for waste management in the region.



### Hafslund Eco Vannkraft

Eidsiva owns 42.8% of the power generation company Hafslund Eco Vannkraft. The company operates more than 74 hydropower plants throughout the southern parts of Norway, producing roughly 15 TWh, making it the second largest power producer in Norway.

### Hafslund Ny Energi

Eidsiva has a 35 per cent ownership in Hafslund Ny Energi – a company that utilises the expertise of the companies in the Eidsiva/Hafslund Group to create new growth opportunities, with a main emphasis on electrification. Hafslund Ny Energi builds new business through acquisitions, organic growth and partnerships that can promote a renewable and fully electric future

# Sustainability in Eidsiva

Electrification, renewable energy, and smart solutions for consumer flexibility are important steppingstones towards solving one of the greatest challenges of our time – climate change. At Eidsiva our overarching goal is to be an enabler of sustainable cities and societies through electrification, and we want to be recognized for our contribution towards climate change mitigation.

In 2020, we conducted a thorough assessment of our sustainability work and processes with the aim of clarifying our role as well as our opportunities in the green energy transition.

Supported by an external consultant (KPMG) we engaged with both internal and external stakeholders to identify the sustainability areas of highest importance to us as an organization.

The full Eidsiva organization was involved, starting with the board of directors, and including all our business areas, to ensure ownership as well as engagement.

The 17 UN Sustainable Development Goals (“UN SDGs”) was used as a roadmap, and through our assessment we identified the goals considered to be most important to us, and where we believe we can contribute the most.

We identified SDG 11 – Sustainable cities and communities – as our primary focus. Many of the UN SDGs are interlinked, and to contribute to the achievement of SDG 11, we concluded that we must also focus on a number of additional SDGs, which are all highlighted below.





# Sustainability Focus Areas

As a result of the strategic process that we underwent in 2020, four focus areas within sustainability were identified, closely linked to the UN SDGs, and which now lay the foundation for our work going forward.

## Clear Green Voice

Eidsiva shall be an organization recognized for contributing towards climate change mitigation and electrification

Eidsiva will take a clear position in the green transition based on sustainable operations in our own business, increased customer focus, and sustainable innovation. This includes active communication of the sustainability plan and of Eidsiva's contribution internally and externally.



## Challenge Suppliers

Eidsiva will strive to make its suppliers more sustainable

We will contribute to increased sustainability throughout the value chain by challenging, helping, and supporting our suppliers in a more sustainable direction. Eidsiva's role includes overseeing routines, driving sustainable innovation in collaboration with suppliers, and improving competence in this area.



## Co-workers as Change Agents

Eidsiva aims to be the best place to work with regards to contributing to the green transition

Our co-workers should promote sustainability in everything they do. Eidsiva aims at ensuring a culture characterized by security, well-being, equality, and diversity. These ambitions will be achieved by increasing knowledge in our own organization and engaging co-workers so that everyone contributes to realizing the ambitions within the other three focus areas.



## Driver for Collaboration

Eidsiva shall initiate relevant partnerships and be a preferred partner

Eidsiva aims at being the preferred partner for leading players in sustainability. We will strengthen our role as a clear partner in our local region and explore the possibilities for strategic partnerships to strengthen the work with sustainability.



Additional information on the respective focus areas can be found on our website.

# Eidsiva and Green Finance

**To ensure we deliver on our goal of being an enabler of sustainable cities and societies, we are committed to making investments that contribute towards climate change mitigation and increased electrification. Renewable energy is a prerequisite for a greener future, and efficient infrastructure is critical to ensure we can take advantage of the increasing supply of clean energy solutions.**

Eidsiva has been in the green finance market since 2017 when we issued our first Green Bond, with the purpose of financing our commitments toward environmentally sustainable and climate resilient development. After the organizational changes in 2019, our initial Green Bond Framework was updated to mirror the new corporate structure and to also include Green Loans in the form of a Green Finance Framework.

The green finance market is in rapid development, and we are in 2021 again updating our Green Finance Framework to ensure we follow best market practice as well as adhere to the developing EU Taxonomy.

This Green Finance Framework (the “Framework”) is aligned with the ICMA Green Bond Principles,

issued in 2021, and the LMA/LSTA Green Loan Principles, issued in 2021, and has been prepared in cooperation with DNB Markets. The Framework covers the issuance of Green Bonds as well as Green Loans (hereinafter collectively referred to as “Green Finance Instruments”).

The Framework defines assets and projects that can be financed by Green Finance Instruments (“Green Projects”), and it also outlines the process to evaluate, select, track and report on such investments.

This Framework may over time be updated, however new versions of the Framework shall have no implications for the Green Finance Instruments issued under this version of the Framework.



# Use of Proceeds

An amount equal to the net proceeds from Green Finance Instruments issued under this Green Finance Framework will be used to finance a portfolio of assets and projects, in whole or in part, that contribute towards climate change mitigation and increased electrification.

Only such assets and projects that comply with the list of Green Projects below are deemed eligible to be financed by Green Finance Instruments. Net proceeds from Green Finance Instruments can be used for the financing of new assets and projects, as well as for refinancing purposes. New assets and projects are defined as ongoing Green Projects and those taken into operation after the issuance of a Green Finance Instrument.

For the avoidance of doubt, Green Finance Instruments will not be used to finance investments linked to fossil energy generation, nuclear energy generation, research and/or development within weapons and defense, potentially environmentally negative resource extraction, gambling, or tobacco.

## Alignment with Relevant Standards and Guidelines

With this Framework, our aim is to meet best market practices by adhering to relevant standards and guidelines in the green finance market. Each Green Project category has therefore been mapped against the different categories of the ICMA Green Bond Principles (“ICMA GBPs”), the relevant UN Sustainable Development Goals (“UN SDGs”) as well as the relevant economic activities included in the EU Taxonomy.

**The EU Taxonomy** provides a classification system for identifying environmentally sustainable economic activities. The Taxonomy Regulation, which entered into force in July 2020, states that to qualify as environmentally sustainable, an activity should 1) make a substantial contribution to the achievement of one or several of EU’s six overarching environmental objectives, 2) do no significant harm to the achievement of any of the other environmental objectives, and 3) meet minimum social safeguards.

Mid 2021, the first set of delegated acts providing technical screening criteria for two of the environmental objectives – **Climate Change Mitigation** and **Climate Change Adaptation** – were published. The references in this Framework

















are based on these delegated acts. As such, the Green Projects financed under this Framework align with the metrics and thresholds of the EU Taxonomy and have the potential to make a significant contribution to EU’s environmental objective of **Climate Change Mitigation**. As part of their Second Party Opinion Cicero Shade of Green has commented on the Taxonomy alignment of our Green Projects.

We acknowledge that metrics and thresholds in the EU Taxonomy may change over time. We will monitor the development, and if deemed necessary by Eidsiva this Green Finance Framework may be updated to further harmonise with the EU Taxonomy. In our annual Green Finance Report, we aim to provide additional information around EU Taxonomy developments that may be of relevance to this Framework and possible implications for our Green Loan criteria and activities.

Mapping against the relevant economic activities in the EU Taxonomy can be found in the table below, while further details regarding alignment with relevant technical screening criteria can be found in the Appendix.

## Green Projects

Green Finance Instruments issued under this Framework will finance and refinance capital expenditures and operating expenditures within the following Green Project categories. For operating expenditures, we will use a maximum look-back period of three years. Green Finance Instruments can also finance and refinance acquisitions of Green Projects as well as investments in share capital of companies with such assets and where the use of proceeds should be directly linked to the book value of the eligible assets owned by the acquired company, adjusted for the share of equity acquired.

GREEN PROJECT CATEGORY	ICMA GBPs	EU TAXONOMY	UN SDGs
<p><b>Distribution of electricity</b></p> <p>Construction, installation, improvement, operation, repair, and maintenance of power grids for distribution of electricity (over and underground), smart grid solutions and smart meters, as well as other monitoring systems aimed at enabling reduction of energy consumption.</p> <p>Radial lines where end-user applies electricity in fossil fuel activities will not be eligible.</p>	<p>Renewable energy</p> <p>Energy efficiency</p>	<p>Transmission and distribution of electricity</p>	   
<p><b>Telecommunication networks</b></p> <p>Construction, installation (including trenching), improvement, operation, repair, and maintenance of fiber optic telecommunication networks and related technology/equipment to enable energy efficient, and digitalised solutions for smart homes and cities.</p>	<p>Energy efficiency</p>	<p>Activity not yet included, but relevant references have been included in the Appendix</p>	  
<p><b>District heating and cooling</b></p> <p>Facilities for district heating and cooling where at least 95% of the fuel comes from renewable sources such as locally sourced forestry waste and residues, recycled wood waste and waste heat from nearby industries.</p> <p>Infrastructure for distribution of district heating and cooling.</p>	<p>Energy efficiency</p>	<p>District heating /cooling distribution</p> <p>Production of heat/cool from bioenergy</p> <p>Production of heat/cool using waste heat</p>	   
<p><b>Renewable energy</b></p> <p>Development, construction, installation, improvement, operation, repair, and maintenance of (a) hydro power projects, where power density is above 5W/m2 or life-cycle emissions below 100g CO2e/kWh, or run-of-river plants without artificial reservoirs, and (b) wind power projects, and related infrastructure (such as dams, tunnels, buildings and roads).</p>	<p>Renewable energy</p>	<p>Electricity generation from hydropower</p> <p>Electricity generation from wind power</p>	 
<p><b>Clean transportation</b></p> <p>Infrastructure for zero-emission transport, such as charging infrastructure for electric vehicles and vessels.</p>	<p>Clean transportation</p>	<p>Infrastructure enabling low-carbon road transport and public transport</p> <p>Infrastructure enabling low carbon water transport</p>	  

# Process for Project Evaluation and Selection

To ensure the transparency and accountability around the selection of Green Projects, Eidsiva has established an internal Green Finance Committee responsible for the evaluation and selection process.

The Green Finance Committee consists of members from the Finance & Control division in Eidsiva. In addition, representatives from the business area relevant for a particular project will be included in the process of evaluating that project. All decisions will be made in consensus, and the environmental/sustainability specialist from the relevant business area will have a veto.

Only such assets and projects that comply with the Green Project criteria defined in the Use of Proceeds section of this Framework can be approved by the Green Finance Committee and become eligible to be financed with Green Finance Instruments.

In addition to the Green Project criteria of this Framework, a number of project elements have been identified that would require additional due diligence before being classified as Green Projects, even if meeting the Green Project criteria. These include:

- Projects located in or near biodiversity-sensitive areas
- Vehicles and equipment running on fossil fuel are excluded
- Projects that have received fines or requests for rectification by public authorities
- Projects not following recommendations for mitigating climate-related risks
- Projects which may lead to long-term lock-in of unsustainable energy sources
- Projects facing material opposition from local communities

The Green Finance Committee will keep a register of all Green Projects, and to ensure traceability, all decisions made by the committee will be documented and filed. The committee also holds the right to exclude any Green Project already funded by Green Finance Instruments, which is further described below under Management of Proceeds.

The Green Finance Committee is responsible for potential future oversight and updates of this Framework. Potential future updates of this Framework will have no impact on the Green Finance Instruments issued hereunder.



# Management of Proceeds

An amount equal to the net proceeds from issued Green Finance Instruments will be earmarked for financing and refinancing of Green Projects as defined in this Green Finance Framework.

The Finance] department of Eidsiva will endeavor to ensure that the value of Green Projects at all times exceeds the total nominal amount of Green Finance Instruments outstanding.

If a Green Project already funded by Green Finance Instruments is sold, or for other reasons loses its eligibility in line with the criteria in this Framework, it will be replaced by another qualifying Green Project as soon as practically possible. Net proceeds from Green Finance Instruments awaiting allocation to Green Projects will be held as cash or cash-equivalents (including short-term money market instruments, where such temporary holdings, to the extent possible, will be subject to the exclusions listed in the Use of Proceeds section above).

## Reporting

To enable investors and other stakeholders to follow the developments of our Green Projects funded by Green Finance Instruments, a Green Finance Report will be made available on our website. The Green Finance Report will include an **Allocation Report** and an **Impact Report** and will be published annually as long as there are Green Finance Instruments outstanding or until full allocation.

### Allocation Report

The Allocation Report will include the following information:

- Amounts invested in each of the Green Project categories defined in this Green Finance Framework and the share of new financing versus refinancing.
- Examples of Green Projects that have been funded by Green Finance Instruments.
- The nominal amount of Green Finance Instruments outstanding, divided into Green Bonds and Green Loans.
- The amount of net proceeds awaiting allocation to Green Projects (if any).
- Information on possible changes/developments in the EU Taxonomy regulation and delegated acts criteria that may be of relevance for our Green Project criteria.

### Impact Report

The Impact Report aims to disclose the environmental impact of the Green Projects financed under this Framework.

Impact reporting calculations will, to some extent, be aggregated, and depending on data availability, be made on a best intention basis. For projects under construction, calculations may be based on preliminary estimates.

The impact assessment may, where applicable, be based on the metrics listed below:

#### Distribution of electricity:

- Increase/improvement in distribution capacity
- SAIDI (System Average Interruption Duration Index)

#### Telecommunication networks:

- Kilometres of installed fibre optic network
- Number of new fibre optic network customers

#### Clean transportation:

- Number of installed charging stations for electric vehicles and vessels

#### District heating and cooling:

- Energy generation capacity (MW)
- Actual annual energy generation (MWh)
- Annual reduction and/or avoidance of GHG emissions (tCO<sub>2</sub>)

#### Renewable energy:

- Energy generation capacity (MW)
- Actual annual energy generation (MWh)
- Annual reduction and/or avoidance of GHG emissions (tCO<sub>2</sub>)

# External Review

## Second Party Opinion

Eidsiva has obtained a pre-issuance Second Party Opinion from Cicero Shades of Green to confirm the transparency of this Green Finance Framework and its alignment with the ICMA Green Bond Principles and the LMA/LSTA Green Loan Principles, published in 2021. The Second Party Opinion also includes an assessment of the alignment of our Green Project categories with the criteria in the EU Taxonomy.

The Second Party Opinion will be made available on our website, together with this Green Finance Framework.

## Post issuance verification

An independent auditor appointed by Eidsiva will provide a limited assurance report confirming that an amount equal to the net proceeds from issued Green Finance Instruments has been allocated to Green Projects as defined in this Green Finance Framework.

This report will be made available on our website.



# Appendix:

## Alignment with the EU Taxonomy

Based on our mapping of Green Project categories in this Green Finance Framework against economic activities in the EU Taxonomy, we are here elaborating on the alignment of our Green Projects with the technical screening criteria in the EU Taxonomy delegated act for Climate Change Mitigation published in April 2021.

### 4.9 TRANSMISSION AND DISTRIBUTION OF ELECTRICITY

**Environmental Objective:** Climate Change Mitigation

#### 1) Arguments for ensuring substantial contribution to Climate Change Mitigation

The EU Taxonomy states that transmission and distribution infrastructure or equipment meeting any of the following requirements are considered to meet the criteria:

- Transmission and distribution infrastructure or equipment that is part of the interconnected European system, i.e. the interconnected control areas of Member States, Norway, Switzerland and the United Kingdom, and its subordinated systems; or
- more than 67% of newly enabled generation capacity in the system is below the generation threshold value of 100g CO<sub>2</sub>e/kWh measured on a life cycle basis, over a rolling five-year period; or
- the average system grid emissions factor is below the threshold value of 100g CO<sub>2</sub>e/kWh measured on a life cycle basis, over a rolling five-year average period.

Infrastructure dedicated to creating a direct connection or expanding an existing direct connection to a power production plant that is more greenhouse gas intensive than 100g CO<sub>2</sub>e/kWh measured on a life cycle basis is not considered compliant.

**Eidsiva's investments in transmission and distribution take place in Norway where approximately 98% of the power production comes from renewable sources, almost exclusively based on hydropower. According to data from the Norwegian Energy Regulatory Authority (NVE), the CO<sub>2</sub> emission factor in 2020 was 8 gCO<sub>2</sub>e/kWh<sup>1</sup>. Therefore, Eidsiva's Green Project criteria for Transmission and Distribution is considered aligned with all three criteria above.**

#### 2) Arguments for ensuring no significant harm towards other environmental objectives

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, having a waste management plan in place for end-of-life reuse and recycling, ensuring limited impact from electromagnetic radiation and making environmental impact assessments to limit negative impact on biodiversity and ecosystems.

**Eidsiva complies with Norwegian Water Directorate (NVE) requirements and the Norwegian Waste Regulation ("Avfallsforskriften"). Eidsiva has frame agreements with certain recipients for waste which ensures recycling of valuable material. Material with little residual value is delivered to a certified recipient which handles the waste appropriately.**

<sup>1</sup> [Hvor kommer strømmen fra? - NVE](#)



## **-.- Telecommunication networks**

**Environmental Objective:** Climate Change Mitigation

### **1) Arguments for ensuring substantial contribution to Climate Change Mitigation**

The EU Taxonomy does not yet include metrics and thresholds for Telecommunication Networks, but the Technical Expert Group included in their final report from March 2020 to the EU Commission a recommendation to undertake work on a number of activities within the Information and Communication sector, among other Telecommunication Networks<sup>2</sup>.

In their recommendation, the TEG highlights the importance of energy efficiency measures as the energy demand rises, to ensure a substantial contribution to climate change mitigation. The TEG discusses that this could either be via a “best-in class” approach, where for example networks in the top 10% in terms of energy efficiency in their network category could be eligible, or by an alternative approach, focusing on an improvement in energy efficiency compared to a baseline. Activities in scope could include upgrading of telecommunication networks to new generation as well as energy efficiency and management in existing telecommunication networks.

**Efficient telecommunication services are a prerequisite for smart city and home solutions. Telecommunication networks based on fiber optic technology has the possibility to reduce energy consumption compared to alternative technology, and high-speed digital communication can also reduce the need for transport. The energy consumed using twisted cables to transmit data is around 10W while fiber optics consumes around 1.5W, and a study indicates that the difference in power consumption between fiber optics and twisted cables increases with the speed of data transmission (Gbit/s) <sup>3</sup>. Efficient network connections between Norway and other countries and continents also means necessary data centres can be placed in Norway where energy consumption and cooling can be based on renewable energy sources.**

### **2) Arguments for ensuring no significant harm towards other environmental objectives**

The TEG recommendation from March 2020, nor the current EU Taxonomy, include any relevant metrics or factors for assessing potential harm towards other environmental objectives.

**Where practically possible, Eidsiva carries out installation of fibre optic networks together with other infrastructure providers, using the same trenches, ensuring minimal impact on surrounding environment. We also engage with our partners to ensure recovery and recycling of electrical components. For offshore cables, additional care is taken to minimise potential negative impact on seabed and local ecosystems.**

<sup>2</sup> [Technical annex to the TEG final report on the EU taxonomy \(europa.eu\)](https://ec.europa.eu/euro-observatory/en/technical-annex-to-the-teg-final-report-on-the-eu-taxonomy)

<sup>3</sup> Source: [Prysmian-study-on-Energy-Consumption.pdf \(europacable.eu\)](https://www.europacable.eu/wp-content/uploads/2020/03/Prysmian-study-on-Energy-Consumption.pdf)

#### **4.15 District heating /cooling distribution**

**Environmental Objective:** Climate Change Mitigation

##### **1) Arguments for ensuring substantial contribution to Climate Change Mitigation**

The Taxonomy states that construction and operation of pipelines and associated infrastructure for distributing heating and cooling is eligible, if the system uses at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy and heat.

**Eidsiva's Green Project criteria for District Heating and Cooling states that at least 95% of the energy used should come from renewable sources such as forestry waste and residues, recycled wood waste and waste heat from nearby industries.**

##### **2) Arguments for ensuring no significant harm towards other environmental objectives**

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, preserve water quality and avoiding water stress, use equipment that represent best available technology, and minimise impact on biodiversity and ecosystems.

**Eidsiva follows national laws and regulations, where environmental impact as well as impact on biodiversity and surrounding areas are important requirements for attaining necessary licenses. We do not operate in areas with water scarcity.**

**Eidsiva Bioenergi is certified in line with ISO 14001, meaning that in addition to what is required from a regulatory perspective, environmental impact is an integrated part of the company's business model and facility risk assessments.**

#### **4.24 Production of heat/cool from bioenergy**

**Environmental Objective:** Climate Change Mitigation

##### **1) Arguments for ensuring substantial contribution to Climate Change Mitigation**

The EU Taxonomy criteria focus on ensuring that forest biomass is not derived from unsustainable production.

**Eidsiva's Green Project criteria for District Heating and Cooling ensures that forest biomass is locally sourced, where Norwegian standards and regulations for forest management apply, ensuring sustainable sourcing.**

##### **2) Arguments for ensuring no significant harm towards other environmental objectives**

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, preserve water quality and avoiding water stress, ensure emissions no higher than those associated with best available techniques, and minimise impact on biodiversity and ecosystems. For pollution prevention and control, the EU Taxonomy refers to emission limits available in EU Directive 2010/75 for large plants (>50MW) and EU Directive 2015/2193 for smaller plants (1-50MW).

**Eidsiva follows national laws and regulations, where environmental impact as well as impact on biodiversity and surrounding areas are important requirements for attaining necessary licenses. We do not operate in areas with water scarcity.**

**In Norway, combustion plants above 50MW are subject to emission limits set by the Norwegian Environment Agency (Miljødirektoratet). The emission limits from the Environment Agency for NOX and dust are aligned with those in the EU Directive 2010/75, but do not include a limit for SO2.**

**The plants financed under this Framework are below 50MW in size and are subject to the Norwegian pollution regulation (Forurensningsforskriften in Norwegian, Chapter 27a). For plants 5-50MW, emission limits for NOX and dust are in line with the EU Directive 2015/2193 but the Norwegian requirements do not include limits for SO2. For plants below 5MW, the Norwegian regulation does not include emission limits for NOX. There is currently a proposal in place to adjust the Norwegian pollution regulation in line with EU requirements and therefore we expect emission levels to harmonise over time**

**Eidsiva Bioenergi is certified in line with ISO 14001, meaning that in addition to what is required from a regulatory perspective, environmental impact is an integrated part of the company's business model and facility risk assessments.**

#### **4.25 Production of heat/cool using waste heat**

**Environmental Objective:** Climate Change Mitigation

##### **1) Arguments for ensuring substantial contribution to Climate Change Mitigation**

Waste heat is an eligible fuel source according to the EU Taxonomy.

##### **2) Arguments for ensuring no significant harm towards other environmental objectives**

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, use equipment and components of high durability and recyclability and that represent best available technology, and minimise impact on biodiversity and ecosystems.

**We always demand the best available options from our suppliers, both in terms of technology as well as quality. We perform environmental impact assessments, and we implement plans to ensure minimal negative impact. We follow national laws and regulations, where environmental impact as well as impact on biodiversity and surrounding areas, are important requirements for attaining necessary licenses.**

**Eidsiva Bioenergi is certified in line with ISO 14001, meaning that in addition to what is required from a regulatory perspective, environmental impact is an integrated part of the company's business model and facility risk assessments.**

## 4.5 Electricity generation from hydropower

Environmental Objective: Climate Change Mitigation

### 1) Arguments for ensuring substantial contribution to Climate Change Mitigation

The EU Taxonomy requires that hydropower facilities have a power density above 5W/m<sup>2</sup>, or life-cycle emissions below 100g CO<sub>2</sub>e/kWh, or are run-of-river plants without artificial reservoirs.

Eidsiva's Green Project criteria for hydropower mirrors those in the EU Taxonomy. According to a report from the IPCC, CO<sub>2</sub> emissions from hydropower vary greatly depending on project and location, with a global median around 20g CO<sub>2</sub>e/kWh<sup>4</sup>. A study performed in 2019 by the Norwegian Institute for Sustainability Research (NORSUS) on Norwegian hydropower, indicates average life-cycle emissions of around 3.3g CO<sub>2</sub>e/kWh. In addition, the study notes that hydropower plants in Norway tend to be located at high altitudes where there is little vegetation as well as colder climate, which leads to limited extra methane emissions from algae growth with could develop in the water storage basin where the climate is warmer<sup>5</sup>.

### 2) Arguments for ensuring no significant harm towards other environmental objectives

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, ensure that all technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water, and minimise impact on biodiversity and ecosystems.

For all hydropower projects, we perform environmental impact assessments in the planning process and we implement plans to ensure minimal negative impact throughout the asset's life cycle. During operation, we perform a range of necessary mitigating measures to safeguard the environmental values in the surrounding watercourse. These measures include, but are not limited to, implementation of physical environmental measures in rivers and reservoirs such as habitat improvement measures for trout and salmon, improved methods for fish passage past hydropower plants and voluntary increased release of water (m<sup>3</sup>/s) in regulated rivers. All our facilities are also regularly subject to environmental supervision by qualified co-workers to ensure good environmental conditions and to assess the need for implementing new mitigating measures. We adhere to the EU Water Framework Directive and we follow national laws and regulations. Environmental impact as well as impact on biodiversity and surrounding areas, are important requirements for attaining necessary licenses, as detailed by the Norwegian Water Resource and Energy Directorate (Norwegian: Norges vassdrags- og energidirektorat).

<sup>4</sup> [ipcc\\_wg3\\_ar5\\_chapter7.pdf](#)

<sup>5</sup> [AR-01.19-The-inventory-and-life-cycle-data-for-Norwegian-hydroelectricity.pdf \(norsus.no\)](#)

### **4.3 Electricity generation from wind power**

**Environmental Objective:** Climate Change Mitigation

#### **1) Arguments for ensuring substantial contribution to Climate Change Mitigation**

Wind power is an eligible energy source according to the EU Taxonomy.

#### **2) Arguments for ensuring no significant harm towards other environmental objectives**

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, for offshore wind particular care to good environmental status should be considered, use of equipment and components of high durability and recyclability, and minimise impact on biodiversity and ecosystems.

**For all wind energy projects, we perform environmental impact assessments and we implement plans to ensure minimal negative impact throughout the asset's life cycle. We follow national laws and regulations, where environmental impact as well as impact on biodiversity and surrounding areas, are important requirements for attaining necessary concessions, as detailed by the Norwegian Water Resource and Energy Directorate (Norwegian: Norges vassdrags- og energidirektorat). This includes requirements on the construction and operational phases, as well as having concrete plans for decommissioning, including possible recycling and reuse of components and the restoration of land.**

## 6.15 Infrastructure enabling low-carbon road transport and public transport

Environmental Objective: Climate Change Mitigation

### 1) Arguments for ensuring substantial contribution to Climate Change Mitigation

The EU Taxonomy states that construction and operation of transport infrastructure that is dedicated to the operation of vehicles with zero tailpipe CO<sub>2</sub> emissions, such as electric charging points, are eligible.

### 2) Arguments for ensuring no significant harm towards other environmental objectives

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, risks of water contamination, noise and vibrations, waste generation and recycling from construction, and minimise impact on biodiversity and ecosystems.

**The infrastructure assets eligible under this Green Finance Framework mainly represent infrastructure where construction has already taken place, which means additional negative environmental impact is limited.**

## 6.16 Infrastructure enabling low carbon water transport

Environmental Objective: Climate Change Mitigation

### 1) Arguments for ensuring substantial contribution to Climate Change Mitigation

The EU Taxonomy states that infrastructure required for zero tailpipe CO<sub>2</sub> operation of vessels or a port's own operations are eligible, such as electricity charging, hydrogen-based refuelling, and shore-side electrical power to vessels at berth, subject to the infrastructure not being dedicated to the transport of fossil fuels.

### 2) Arguments for ensuring no significant harm towards other environmental objectives

To avoid potential significant harm to other environmental objectives, the Taxonomy highlights the need to consider climate-related risks, risks of water contamination, noise and vibrations, waste generation and recycling from construction, and minimise impact on biodiversity and ecosystems.

**If Eidsiva engages in construction and operation of shore power facilities these will only be constructed after thorough assessment and considerations of the placement of the site itself and the required power cables to avoid permanent and temporarily harm to the environment, as well as controversies with and opposition from the local community being exposed to the construction and operation of the facilities. We will also include suppliers and sub-contractors work and responsibilities in our assessment and have a set of environmental compliance criteria which suppliers and subcontractors must comply with.**

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