

Green Finance Framework

December 2020



Akershus
energi

An Introduction to Akershus Energi

Akershus Energi AS (Akershus Energi) is a Norwegian energy company owned by the county of Viken. For many years, our core business has been the production of hydropower, but today we operate across several energy sources, including district heating and wind power. In addition, we have a separate division called the New Renewable and Infrastructure unit which is tasked with the development of projects, new business and business models within solar power, hydrogen production, data centres and real estate.

We have built and accumulated experience in renewable energy over almost 100 years. Our past is rooted in Viken county (formerly known as Akershus county), where we completed our first hydropower plant in 1922. Later, in the 1990s, we expanded into the transmission and distribution of electricity, a business which was sold in the early 2000s. Since then, Akershus Energi has been focused on energy production. Below, we further describe the business areas which are most relevant for the purposes of this Green Bond Framework.

Hydropower

Hydropower is the core of our business. Akershus Energi currently owns nine hydropower plants situated in Eastern Norway. Our first power plant, Rånåsfoss I, was completed in 1922, and in 1983 Rånåsfoss II was taken into operation. In 2016, significant upgrades were made at Rånåsfoss I, and the plant was effectively replaced and renamed Rånåsfoss III with significantly higher production capacity. As of 2020, we also have two other power plants by the Glomma river as well as plants in Skien, Halden and at the Andelva river. In addition we have ownership interests in ten other power plants together with other energy companies. Our partly owned power plants are located near the Glomma, Lågen and Hallingdal rivers and they make up just under half of our total annual average production of 2.5 TWh.

At the time of writing this Green Finance Framework, Akershus Energi is participating in the construction of the Tolga power plant in the far north of the Inland county. The project will be completed by the end of 2021 and will contribute a total of 205 GWh new renewable energy.

By the end of 2019, Akershus Energi's energy production corresponded to the annual electricity consumption of approximately 150,000 homes.

The hydropower business is operated through five wholly owned subsidiaries: Akershus Energi Vannkraft AS, Glomma Kraftproduksjon AS, Halden Kraftproduksjon AS, Skien Kraftproduksjon AS, Lågen and Øvre Glomma Kraftproduksjon AS and Øvre Hallingdal Kraftproduksjon AS.

District heating

We have a regional investment in district heating through the subsidiary Akershus Energi Varme AS. The district heating business has plants in Lillestrøm, Lørenskog, Årnes, Sørumsand and Skedsmokorset.

Traditionally, district heating has utilized waste heat from e.g. waste combustion. Our infrastructure does not include waste, but instead relies on waste heat from sewage, solar power, wood waste, electricity with certificates of origin, certified bio oil and heat from cooling of an indoor ski centre.

By relying on sustainable fuel sources, district heating can promote circular processes and cleaner energy. As the energy needs of cities and towns increase, the need for clean energy sources will also increase. Without district heating and district cooling, the increasing demand will have to be covered via the electricity grid, potentially increasing the share of unsustainable energy sources.

Wind

We began investing in wind power generation in 2020 as part of a strategy to broaden our renewable energy portfolio. In March 2020, Akershus Energi acquired the concession for Odal Vindkraftverk and construction started in May. The wind park will contribute another 526 GWh of new renewable energy through 34 wind turbines when it is completed at the end of 2021.

Investments are made through our wholly owned subsidiary Akershus Energi Vind AS. We aim to have traditional large-scale wind farms, preferably in our own district Viken/NO1 and where conditions are advantageous. For instance, where licenses have already been granted or at locations situated in supportive municipalities and with existing grid connectivity. In addition, we believe there is untapped potential in smaller-scale onshore wind power generation (<10MW), especially in collaboration and agreement with local communities, municipalities and industries.

New Renewable and Infrastructure

The New Renewable and Infrastructure unit is tasked with the development of projects, new business and business models within solar, hydrogen and local energy solutions. The unit is also responsible for Akershus Energi's involvement in real estate and data centres. The investments are channelled through the wholly owned subsidiary Akershus Energi Infrastruktur AS.

Solar Energy

Solar power will be an important part of the energy mix of the future. By investing in, and cooperating with, dedicated solar companies such as FUSen and Otovo, we wish to promote additional solar power development.

In 2013, Akershus Energi opened Norway's largest solar heating plant as part of the district heating plant in Akershus Energipark. Going forward, solutions for combining various clean energy sources will be necessary and we consider solar to be an important component for both electricity generation and district heating.

Hydrogen

Hydrogen is an important focus area for Akershus Energi. We believe hydrogen will become an integrated part of the transport and industrial sectors in the future and may also provide energy solutions for shipping and aviation. If Norway is to be electrified, large amounts of additional

electricity must be produced, and hydrogen could play a key role.

We acknowledge the distinction between "blue" and "green" hydrogen, where green hydrogen is produced through electrolysis of water combined with electricity and the biproduct is oxygen. Blue hydrogen will need solutions for carbon capture and storage to ensure environmental benefits. We believe both solutions will be of value to ensure that we create efficient infrastructure for hydrogen use within transportation. Green hydrogen is a good example of circular economy as it can be complementary to wind energy since hydrogen can be produced from wind power generation when electricity consumption is low. Additionally, the heat from the hydrogen electrolysis process can be utilized in our district heating.

Our ambition is to have one large-scale production plant for green hydrogen in place during 2021.

We are working in close partnership with companies such as Hyundai, Nel Fuel AS, H2 Energy AS and Greenstat AS to realize our ambitions.

Our View on Sustainability

When Akershus Energi was established over 100 years ago, our aim was to supply the local region with renewable energy and create value that would benefit society. This is still reflected in how we exercise our social and environmental responsibilities today.

We want to contribute to achieving the sustainability goals that are important for the future. As a large energy company and an important player in our community, we have the competence and opportunity to positively contribute to several of the UN Sustainable Development Goals. We follow the UN Global Compact's ten principles in the areas of human rights, labor standards, the environment and anti-corruption. For our suppliers, as part of the Eco-Lighthouse certification (see below) we also require them to sign off on compliance with the above mentioned labor standards

In addition to producing renewable energy in a sustainable way, we work actively to reduce greenhouse gas emissions. We do this in several ways. At our power stations, for example, waste from the rivers is collected annually, and we have established routines to avoid discharges to water, soil and air. In our district heating plants, we have worked to eliminate the use of fossil fuel and to replace it with certified bio oil of high quality. We closely monitor the CO₂ and NO_x emissions from our plants to ensure compliance with strict requirements. All our electricity consumption is bought with guarantees of origin to ensure the promotion of renewable energy sources. Circular economy is a central part of our strategy to ensure maximum use of all available resources and making sure nothing goes to waste.

We have identified a number of the UN Sustainable Development Goals as being of highest relevance to us, and where we believe we can make the greatest contributions, as further described on the following page.



SDG 7: CLEAN ENERGY FOR EVERYONE

We have been producing power from water for almost 100 years. We are in the process of introducing solar, wind and other renewable energy resources on a large scale. Clean energy for all is not just a sustainability goal we work to achieve: it is enshrined as a vision for us. We know that the energy solutions of the future are 100% based on renewable energy, and the interplay between utilization and production of energy.



SDG 9: INNOVATION AND INFRASTRUCTURE

We are developing our business from a pure energy producer to being a broad energy company. A new strategy has been outlined/framed/established, and the key elements are innovation and infrastructure. We will continue to produce clean energy, but our growth will also take place in new renewable forms of energy, and the infrastructure and distribution of energy.



SDG 11: SUSTAINABLE CITIES AND SOCIETIES

We have a holistic view of society, industry, transport and agriculture and therefore our innovations are aimed at facilitating a circular economy. We want to be able to live ample and sustainable lives without compromising nature or natural resources



SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

In the future, we will be an important player in the circular economy. Essential resources such as waste heat from sewage, waste and residual products from the forest must be reused for energy purposes. Nothing should go to waste. This applies both internally and externally; we will contribute to efficient management of natural resources and reduce wastage and waste from our own operations, at the same time as we will support industry, transport and society at large in finding sustainable solutions. Routines for purchasing and use of resources coupled with sustainability will be an integral part of our reporting.



SDG 13: STOP CLIMATE CHANGE

If the goals set in the Paris Agreement are to be achieved, the world must quickly switch to forms of energy based on clean, renewable energy sources. Akershus Energi only operates with clean, renewable energy. We will continue to be a driving force to develop solutions necessary to cover the energy demand of the future.



SDG 15: LIFE ON LAND

Our hydropower production falls under "life on land" and is perhaps the area where we can make the strongest contribution. Our production must take into account both large societies and nature conservation interests without sacrificing biodiversity. We must ensure a healthy environment for the species who populate the rivers we use for our hydropower production and will actively contribute to better migration conditions for fish at our power stations



SDG 17: COOPERATION TO ACHIEVE THE GOALS

As we see it, this is perhaps the most important goal in order to achieve any of the other SDGs. Cooperation across economic sectors and industries, private and public, is absolutely essential if we are to achieve the climate goals. Innovation works best when bright minds with different perspectives pull together constructively towards a common goal. Akershus Energi will actively seek partnerships and collaboration, both with companies, municipalities and society as a whole, because knowledge and problem solving is the key to a common future where we live in harmony with nature.



Eco-Lighthouse Certification

During 2020, we have received an Eco-Lighthouse certification (“Miljøfyrtårn” in Norwegian). The Eco-Lighthouse certification is Norway's most well-known and recognized scheme for environmental work in companies and enterprises in both the private and public sector.

The process behind becoming Eco-Lighthouse certified is all-encompassing. Among the requirements in which the certification is based, it is important to have a good HSE Safety Management system, which we always have as our first priority. To remain certified, we must document and report our environmental impact. There is also a recertification every three years. The scheme poses a number of demands, namely that we should reduce and sort waste and increase the transparency of energy use. We must also choose eco-labeled goods in the contexts we can, be it the Nordic Ecolabel, the Keyhole label or the Debio label. Miljøfyrtårn is the first national scheme that is recognized by the EU, and can serve as a step towards further certifications, such as ISO 14001 / EMAS.

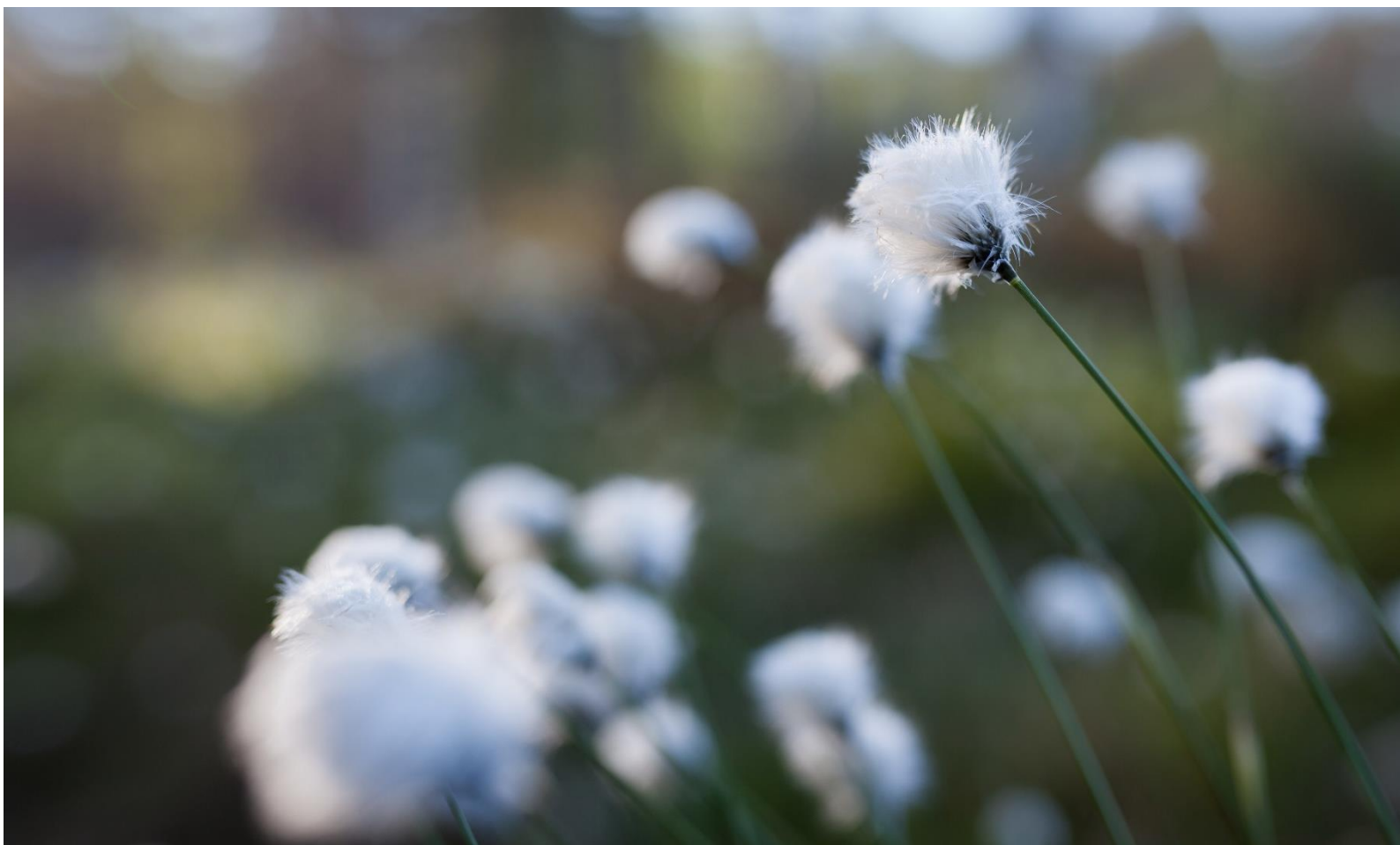
Akershus Energi and Green Finance

Investing in the green energy transition is vital if we are to reach the Paris Climate Agreement and several of the UN Sustainable Development Goals. This Green Finance Framework (the “Framework”) enables Akershus Energi to issue Green Bonds and Green Loans (collectively referred to as “Green Finance Instruments”) to finance investments in renewable energy as well as infrastructure enabling the transition to a low-carbon and climate-resilient society.

This Green Finance Framework is aligned with the ICMA Green Bond Principles and the LMA/LSTA Green Loan Principles, both published in 2018, and has been prepared in cooperation with DNB Markets.

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.

Each Green Finance Instrument issued under this Framework should in their relevant transaction documentation refer to this 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 promote the transition towards low-carbon and climate-resilient development.

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 less than 12 months prior to 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 defence, potentially environmentally negative resource extraction, gambling or tobacco.

Green Finance Instruments issued under this Framework will finance and refinance investments and related expenditures within the following **Green Project Categories**, all connected to renewable energy. Each category, with its respective criteria, is further described on the following page.

- Renewable energy projects including hydropower, wind power and solar power
- Hydrogen production facilities and related infrastructure
- District heating and cooling facilities and related infrastructure

Alignment with relevant standards and guidelines

Akershus Energi's aim is to meet best market practice 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 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 economic activity should; make a substantial contribution to the achievement of one or several of EU's six overarching environmental objectives,
- do no significant harm to the achievement of any of the other environmental objectives, and
- meet minimum social safeguards.

Accompanying the EU Taxonomy Regulation, delegated acts with technical screening criteria for specific economic activities are to be published for the six environmental objectives. In November 2020, draft 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 drafts. The delegated acts are expected to be formally adopted in December 2020. Based on currently available information, we believe the Green Projects financed under this Framework align well 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**. We have not performed a formal assessment and cannot guarantee alignment, but we aim to provide relevant information to enable investors to make informed decisions. We also note that metrics and thresholds may still change, and may also change over time. It is our aim to monitor the development, and when deemed necessary by Akershus Energi, this Green Finance Framework may be updated to further harmonise with the EU Taxonomy.

Mapping against the relevant economic activities in the Taxonomy Report can be found in the table below, while further details and references to respective metrics and thresholds can be found in the Appendix.

Green Projects

Investments to promote the green energy transition, such as direct investments in renewable energy sources as well as production of renewable and low-carbon fuel and heat as well as necessary infrastructure. This also includes acquisitions of such projects as well as investments in share capital of companies with such assets, where we have significant operational influence 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	UN SDGs	EU Taxonomy
Renewable energy projects Investments, and related expenditures, directed towards the development, construction, installation, improvement, operation, repair and maintenance of renewable energy projects, including hydropower with life cycle emissions below 100g CO ₂ /kWh, wind and solar power.	Renewable energy	<div>7 AFFORDABLE AND CLEAN ENERGY</div> <div>13 CLIMATE ACTION</div> <div>15 LIFE ON LAND</div>	Electricity generation from hydropower Electricity generation from wind power Electricity generation using solar photovoltaic technology
Hydrogen production Investments, and related expenditures, directed towards the production of green hydrogen, as well as related infrastructure.	Renewable energy	<div>7 AFFORDABLE AND CLEAN ENERGY</div> <div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div>13 CLIMATE ACTION</div> <div>17 PARTNERSHIPS FOR THE GOALS</div>	Manufacture of hydrogen
District heating and cooling Investments, and related expenditures, directed towards facilities and related infrastructure for district heating and cooling where at least 95% of the energy comes from renewable energy sources, such as waste heat from sewage, solar power, wood waste, electricity with certificates of origin, certified bio oil, as well as facilities for recovering and distributing waste heat from nearby industries.	Renewable Energy/ Energy efficiency	<div>7 AFFORDABLE AND CLEAN ENERGY</div> <div>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</div> <div>13 CLIMATE ACTION</div>	District heating/cooling distribution Production of heat/cool from bioenergy Production of heat/cool using waste heat

Process for Project Evaluation and Selection

To ensure the transparency and accountability around the selection of Green Projects, Akershus Energi has established an internal Green Finance Committee, being responsible for the evaluation and selection process. The Green Finance Committee consists of members from the Management, Operations and Finance teams in Akershus Energi, and all decisions will be made in consensus.

Only such assets and projects that comply with the Green Project criteria defined in the Use of Proceeds section of this Framework are eligible to be financed with Green Finance Instruments. 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 Green Finance Committee 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 also in charge of potential future oversight and updates of this Framework.

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 Akershus Energi will endeavor to ensure that the value of Green Projects at all times exceed the total 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, we will strive to replace such project by another qualifying Green Project.

Net proceeds from Green Finance Instruments awaiting allocation to Green Projects will be managed according to Akershus Energi's overall liquidity management policy, and may be invested in short term money market instruments or held as cash.



Reporting

To enable investors, lenders and other stakeholders to follow the development of the 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 be published annually as long as there are Green Finance Instruments outstanding.

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).

Impact Report

The impact report aims to disclose the environmental impact of the Green Projects financed under this Framework. Impact reporting will, to some extent, be aggregated and depending on data availability, calculations will be made on a best intention basis. The impact assessment may, where applicable, be based on the metrics listed below.

- Annual energy generation capacity from hydropower, wind and solar (MWh)
- Annual energy generation capacity from district heating (MWh)
- Actual annual energy generation (MWh)
- Annual reduction and/or avoidance of GHG emissions (tonnes of CO₂e)
- Volume of hydrogen produced

External Review

Akershus Energi has obtained a 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 2018. The Second Party Opinion will be made available on our website together with this Green Finance Framework.

An independent auditor appointed by Akershus Energi will on an annual basis provide a limited assurance report confirming that an amount equal to the net proceeds from issued Green Finance Instruments have been allocated to Green Projects.

Appendix: The EU Taxonomy

Based on the mapping of the Green Project Categories against economic activities in the draft delegated acts of the EU Taxonomy, we have below elaborated on the relevant metrics and thresholds for assessing possible alignment.

Electricity generation from hydropower

EU Environmental Objective: Climate Change Mitigation

NACE codes: D.35.1.1 and F42.22

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU Taxonomy introduces a threshold for facilities to operate at life cycle emissions lower than 100g CO₂e/kWh, declining to 0g CO₂e/kWh by 2050. According to the IPCC¹, CO₂ emissions from hydropower vary greatly depending on project and location, with a global median around 20g CO₂e/kWh.

Akershus Energi has not performed a GHG life cycle assessment on our hydropower facilities, however according to a study² performed in 2019 by the Norwegian Institute for Sustainability Research (NORSUS) on Norwegian hydropower, where two of our plants were included, indicates average emissions of around 3.3g CO₂e/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 a colder climate, which leads to limited extra methane emissions from algae growth which could develop in the water storage basin where the climate is warmer.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with hydropower highlighted by the EU Taxonomy include emissions to water and generation of waste during construction, as well as impacts on biodiversity associated with fragmentation of ecosystems and changes to habitat, to hydrological and hydrogeological regimes, water chemistry, and interference with species migration pathways as a result of the establishment of the installation and its operation.

For all hydropower projects, we perform environmental impact assessments and we implement plans to ensure minimal negative impact throughout the asset's life cycle. During operation, we take necessary mitigation measures such as conducting impact assessments on fish in the rivers and we construct two-way water passages for fish to wander upstream and downstream past our power plants. 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).

Electricity generation from wind power

EU Environmental Objective: Climate Change Mitigation

NACE code: D.35.1.1 and F42.2.2

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU Taxonomy introduces a threshold for facilities to operate at life cycle emissions lower than 100g CO₂e/kWh, declining to 0g CO₂e/kWh by 2050. Wind power is currently exempt from performing a GHG life cycle assessment, subject to regular review in accordance with the declining threshold.

Arguments for ensuring no significant harm towards other environmental objectives

¹ https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter7.pdf

² <https://norsus.no/wp-content/uploads/AR-01.19-The-inventory-and-life-cycle-data-for-Norwegian-hydroelectricity.pdf>

The main negative environmental impacts associated with wind power highlighted by the EU Taxonomy are related to nature conservation at a local level.

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.

Electricity generation using solar photovoltaic technology

EU Environmental Objective: Climate Change Mitigation

NACE codes: D.35.1.1 and F42.2.2

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU Taxonomy introduces a threshold for facilities to operate at life cycle emissions lower than 100g CO₂e/kWh, declining to 0g CO₂e/kWh by 2050. Solar PV is currently exempt from performing a GHG life cycle assessment, subject to regular review in accordance with the declining threshold.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with solar PV highlighted by the EU Taxonomy are related to nature conservation at a local level.

For all solar energy projects, we perform environmental impact assessments and implement plans to ensure minimal negative impact throughout the asset's lifecycle. We follow national laws and regulations, where environmental impact as well as impact on biodiversity and surrounding areas will most likely be important requirements for attaining necessary licenses. Regulations in this area are not yet detailed by the authorities. We also explore opportunities for more efficient use of land, together with relevant partners, where solar parks could be combined with for example agriculture.

Manufacture of hydrogen

EU Environmental Objective: Climate Change Mitigation

NACE code: 4/ C20.1.1

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU Taxonomy presents a threshold where life cycle GHG emissions should be 80 % lower than for a fossil fuel comparator of 94g CO₂e/MJ. Carbon capture can be utilized to meet the threshold, if the captured carbon is transported and stored in line with the relevant Taxonomy criteria.

Akershus Energi is focused on production of green hydrogen, based on renewable energy sources. In addition, hydrogen contributes to circular processes as it can be complementary to wind energy since wind production is often high when consumption is low. Additionally, the heat from the electrolysis process can be utilized in our district heating.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with hydrogen production highlighted by the EU Taxonomy include polluting air emissions, water usage and the generation of waste.

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. We do not operate in areas with water scarcity and by focusing on green hydrogen we minimise the risk of air pollution. When searching for potential production sites, we

focus on areas with existing grid and transport connectivity and where there may already be industrial production in place.

District heating/cooling distribution

EU Environmental Objective: Climate Change Mitigation

NACE code: D.35.3.0

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU 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.

At least 95% of the energy used in Akershus Energi's district heating comes from renewable and energy efficient sources such as waste heat from sewage, solar power, wood waste, electricity with certificates of origin or from certified bio oil as well as heat produced from nearby industries.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with district heating/cooling highlighted by the EU Taxonomy are related to the construction, such as impact on local ecosystems, emissions and use of hazardous material. For the operation phase, potential negative impacts are considered low.

Most of our infrastructure is located in urban areas, where the environmental impact is lower. In addition, construction typically only takes place where there is already another construction in progress, and if we were to have an impact on agricultural or undeveloped land, soil will be restored after the infrastructure is in place. From our suppliers, we demand efficient pipeline insulation to minimise heat losses and high-quality components to maximise lifetime of our infrastructure assets. Waste from construction, such as asphalt and other masses, are delivered to approved waste sites.

Production of heat/cool from bioenergy

EU Environmental Objective: Climate Change Mitigation

NACE code: D.35.3.0

Arguments for ensuring significant contribution to Climate Change Mitigation

The EU Taxonomy states that agriculture and forest biomass used for production of heat and cool should comply with relevant criteria in the EU Directive on the promotion of the use of energy from renewable sources (Directive 2018/2001). In regards to greenhouse gas emissions, savings should be at least in line with the methodology of the same EU Directive.

Over the next three years, possible investments in production of heat/cool would most likely involve biooil and/or waste heat. We use biooil certified by REDcert. The REDcert scheme is one of several schemes recognized by the EU for demonstrating compliance with the sustainability criteria included in EU's renewable energy directive³. Under the recast Renewable Energy Directive (EU) 2018/2001, the EU sustainability criteria were extended to cover biomass for heating and cooling and power generation. Member States are required to transpose the new rules by 30 June 2021 and the voluntary schemes have to adjust the certification approaches to meet the new requirements.

The REDcert scheme was initially designed to satisfy the basic requirements of Directive 2009/28/EC, which is the predecessor to Directive 2018/2001. To retain EU recognition, schemes must adjust their certification approaches to

³ https://ec.europa.eu/energy/topics/renewable-energy/biofuels/voluntary-schemes_en

meet the new requirements by 30 June 2021. It is our understanding that REDcert is currently cooperating with BioEnergy Europe to adjust the certification to the new standards⁴.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with production of heat/cool from bioenergy includes pollution, impact on surrounding nature, as well as potential water stress. 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. We do not operate in areas with water scarcity.

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).

In Norway, combustion plants above 50MW are subject to emission limits set by the Norwegian Environment Agency (Miljødirektoratet). Our plant in Lillestrøm (Akershus EnergiPark) falls into this category. The emission limits from the Environment Agency for NO_x and dust are aligned with those in the EU Directive 2010/75, but do not include a limit for SO₂.

Our other plants 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 NO_x 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 NO_x. 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.

Production of heat/cool from waste heat

EU Environmental Objective: Climate Change Mitigation
NACE code: D.35.3.0

Arguments for ensuring significant contribution to Climate Change Mitigation

Over the next three years, possible investments in production of heat/cool would most likely involve biooil and/or waste heat. The EU Taxonomy states that activities producing heat/cool from waste heat are eligible.

Arguments for ensuring no significant harm towards other environmental objectives

The main negative environmental impacts associated with production of heat/cool from waste heat includes choice of material and components, ensuring limited emissions and high durability and recyclability, as well as impact on surrounding nature.

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.

⁴ <https://sure-system.org/en/article-news/8-news/58-sustainable-resources-verifications-scheme-sure-starts-operation.html>