



småkraft®

SMÅKRAFT AS
SUSTAINABILITY REPORT 2019

Tesgjolo, Voss, Vestland



Ytre Alsåker power plant,
Ullensvang, Vestland

SUSTAINABILITY AT SMÅKRAFT



Småkraft is a producer of renewable energy. Our fleet of 110 hydropower plants is spread all across Norway and delivers a mean annual production capacity of 1,1 TWh, making Småkraft Europe's largest owner and operator within its niche.

Small-scale hydropower borrows water which naturally flow in the river and utilizes the topography of the landscape to produce renewable and sustainable electricity. A minimum water level is maintained in the original river and the water used to produce electricity is returned once it passes through the turbine. The electricity grid transports and distributes our electricity out to consumers.

The values created are shared with our stakeholders including owners, creditors & debt investors, local landowners, local municipalities, local societies and society in general. For more than 15 years, Småkraft has invested heavily in the generation of new renewable energy for the Nordic and European power markets. Our contribution to one of the biggest challenges of our time, the transformation to a renewable and sustainable society powered by renewable energy, is to continue our commitment to grow.

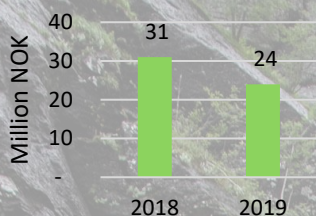
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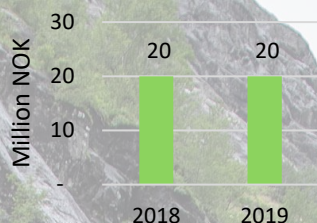
SMÅKRAFT AT A GLANCE

Payments to landowners



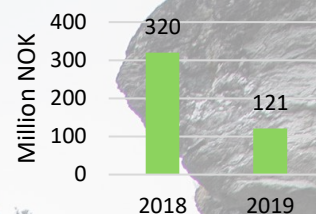
Paid landlease represents payments to landowners based upon the respective accounting period.

Payments to municipalities



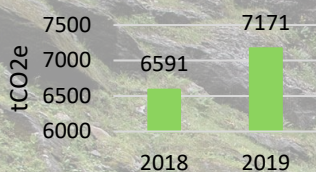
Paid property tax represents payments directly to the municipalities where the power plants are located.

Investments in powerplants



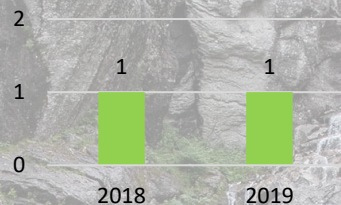
Investments in powerplants represent accumulated paid amounts to the sellers/ constructors of the powerplants.

CO2- reductions in tCO2e

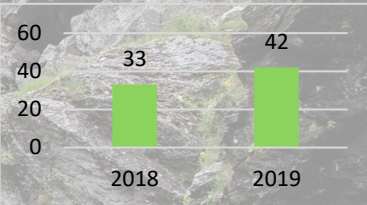


t CO2 e based on actual production during 2019 and 2018. This is the substitution effect of renewable energy.

Environmental incidents

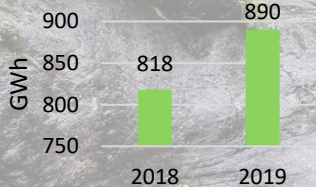


HSE- trainings



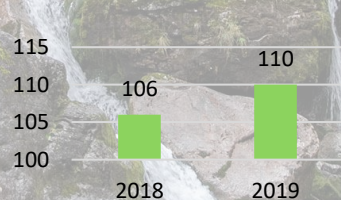
Operators having performed Health, safety and environmental trainings last 3 years.

Production



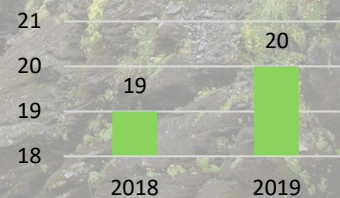
Production is defined as the amount of produced energy delivered into the grid

Number of power plants



Småkraft added three power plants in December 2019 and one in June 2019.

Number of employees



HIGHLIGHTS DURING 2019

JANUARY	FEBRUARY	MARCH
		Småkraft issued its first Sustainability Report .
APRIL	MAY	JUNE
		Småkraft listed its first Green Bond on the Green List on Oslo Stock Exchange. The loan was accepted to Euronext pan-European green list. Småkraft finalized the acquisition of Spilling hydropower plant.
JULY	AUGUST	SEPTEMBER
Småkraft signed a purchase agreement with NGK Utbygging AS. NGK Utbygging AS will develop Bordalselva hydropower plant, after which Småkraft AS will acquire and operate the power plant.		Småkraft achieved 5 out of 5 stars in the annual GRESB sustainability benchmark study. Småkraft achieved the second highest score among all renewable energy producers in Northern-Europe and achieved the highest score within climate reporting.
OCTOBER	NOVEMBER	DECEMBER
Småkraft held environmental and safety trainings for operators in Eastern Norway.	The Norwegian Daily Dagens Næringsliv rewarded Småkraft with 3 Gazelle awards . Dagens Næringsliv rewards Norwegian companies that experience sustainable growth.	Småkraft finalized the acquisition of the hydropower plants Røfsdalselva , Helgåa and Holen . Småkraft signed purchase agreements with Nordkraft about the Rusvik hydro power plant.

INTRODUCTION BY THE CEO

Småkraft continues to highlight how we work with sustainability. We show how our business influences people, society, animals and the environment, how we work to improve these influences and how we assess the related risks.



During 2019, we witnessed several discussions about how climate transition could be fair. Increasingly, we see that climate action will be costly. The global community is responsible for the greenhouse gas emissions. However, individuals and local communities bear the consequences and costs. Småkraft has a business model where the local families that live closest to our installations, our renewable power plants, also take part in the benefits.

The landowners who own the natural resource we utilize to create sustainable and renewable energy are our most important partners and our most important stakeholders. Landowners get to participate in value creation by receiving annual payments based on the earnings of the small power plant. Furthermore, the municipalities where our powerplants are based receive tax revenues directly from the small power plant, which can help finance local welfare. We use local construction companies to build the power plants and local expertise to operate the power plants.

When we in Småkraft manage to invest in new small-scale power plants, we create renewable energy with a fair distribution between the investor, the hosting municipality, the local business community and not least the landowners. We believe that Småkraft is a modern example and symbol of how we can bridge global and national needs for more renewable energy and value creation locally.

However, it is not enough today to have a renewable and sustainable business model. We are constantly experiencing increased expectations about how we act, how systematically we handle environmental impacts and, not least, how safely we manage to operate. Increased expectations mean that we as a company are constantly developing and improving.

Thus, we work more systematically than ever before with minimum water management and biodiversity. We develop our understanding of risk and try to implement more accurate and efficient measures. We increase the safety of our employees and third parties. But most importantly, we try to create as much renewable energy possible.

We can always do more. We can always do better. All measures and actions in a company like ours will be about priorities and risk assessments. Our Sustainability Report therefore strives to provide a representative picture of our business. We try to illustrate what we do, but we also try to show why we do it. This is basically demonstrating the outside world what kind of risk assessments we are doing, why we are concluding as we are doing, what kind of measures we are taking and what these measures mean.

We at Småkraft are proud of what we have achieved, but we are also aware that much work remains for the years to come.

CEO
Terje Vedeler

OUR GOALS

Why is sustainability important to our long-term goals?

Småkraft's long-term goal is to generate as much renewable energy as possible over time. To achieve this goal, we must utilize natural resources optimally without wasting energy unnecessarily. Finally, it is a goal, because society has given us as a company the privilege to intervene in nature. We need to respect this privilege by utilizing the natural resource as efficiently as possible.

"Småkrafts long term goal is to generate as much renewable energy over time by utilizing the natural resources gentle and efficient.»

To achieve our main objective, we must, over time, meet several sub-goals. Many of these sub-goals will be financial and are therefore discussed in our ordinary annual report. However, even more of the sub-goals are non-financial. They are ESG- factors: how we intervene with the environment (E), how we interact with the society (S) and how we govern (G) the business, so-called ESG factors. This sustainability report presents our long-term goals. It is an important supplement to our regular annual financial report.

Our sustainability report shows how we create values in the long run in an environmental and social context. We present some of our strategies and governance structures to achieve these goals, and some of the external long-term risks that may threaten the goals. We publish sustainability reports because we believe that this increases the basis for decision-making for investors, landowners, creditors and other stakeholders when considering our business.



Ytre Alsåker power plant,
Ullensvang, Vestland

HOW SMÅKRAFT WORKS WITH SUSTAINABILITY

Our model: Sustainable Growth

Småkraft has a long-term strategy called "2by22", a 2 TWh goal in production capacity by 2022. This contributes new renewable energy to support the Norwegian and European energy transition objectives. The power plants we build will contribute renewable energy for generations, and we invest with a generational perspective. Our power plants consider the needs of animals, plants and humans.

Our growth needs to be sustainable for Småkraft to achieve these goals. Thus, we have several of the United Nations. Sustainability Goals integrated in our growth strategy.

In tune with nature

We will utilize the natural resources efficiently and get the most energy out of the land we use.

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Employee and contractor safety and health

Zero harm to employees and contractors, and a safe and healthy workplace.

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Creating values together with the communities

We create values together and for the local communities living next to the power plants.

Page 26



A skilled and committed workforce

We want to inspire, engage and develop all our people to reach their full potential.

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8 GOALS FOR SUSTAINABLE GROWTH

Biodiversity and ecosystems

We are working actively to minimize how our business affect the ecosystems where we are present.

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Fairness and diversity in the workplace

We seek diversity in competence and experience to solve complex challenges.

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Climate resilience

We want to understand how the climate changes affect our business and its surroundings.

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Climate action

We create new renewable energy pivotal to fight climate change.

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How do we develop sustainability over time

Historically, Småkraft has been a relatively small company in which a structured approach to ESG issues were lacking. With “2 by 22”, we have embarked on a 5-year journey to make sustainability risk based, structured and fully integrated into working processes, procedures and reporting structures. The work started with the release of a sustainability policy in 2017. The following year Småkraft focused on structuring processes, data gathering and increasing the reporting frequency and accuracy. This year, in 2019, our goal was to integrate sustainability in risk assessments, steering mechanisms and reporting.

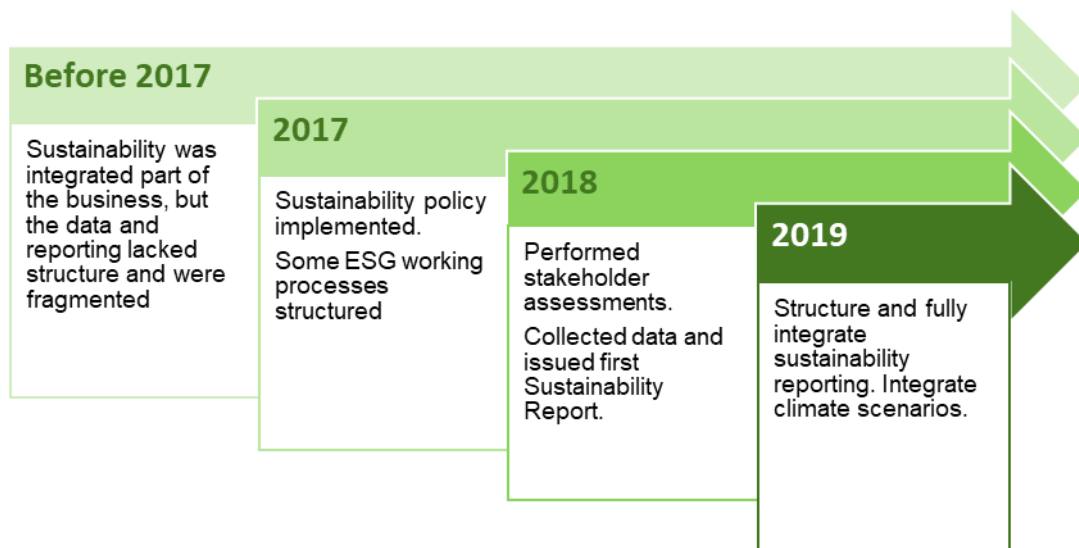
Småkraft's sustainability plan is based upon the United Nations' Sustainability Goals, which we believe are relevant to our business. They make it easier to recognize what the sustainability work in Småkraft entails

We have assessed who the stakeholders in our business are. They have been categorized and by frequently communicating with them, we have developed an understanding of typical ESG topics of their interests. In-depth interviews based on these, allowed us to arrive at a shortlist of areas of most importance to our stakeholders. An external consultancy firm was chosen to conduct the interviews to ensure objectivity. Lastly, a structured survey

“As shareholder of Småkraft, we welcome how the firm incorporates sustainability in its operations and decision- making processes. With only 20 employees, Småkraft demonstrates that even smaller organisations are able to ingrain the high levels of ESG- criteria in their everyday business. ”

Majority owner APG

was carried out internally to find out which sustainability matters were most important to our staff. The sum of these efforts highlights which subjects are most relevant in the ESG materiality assessment, and these form the framework of the continued work for the years to come.



UNITED NATION'S SUSTAINABILITY GOALS

Småkraft's assessment of the sustainability goals

Småkraft AS acknowledges the U.N. Sustainability Goals and their role in eliminating poverty, fight inequality and stop the climate changes within 2030. We see our business in a larger context, and our vision is that local and small initiatives accumulated, will add up to significant and material effects.



Therefore, we compare our business to the Sustainability Goals and build our ESG policies on theses. Småkraft has ambitious targets and is privileged to produce the cleanest form of energy. We actively steer the nature of our business to achieve several of the UN goals. These are:



Goal 5: Gender Equality
Goal 6: Clean Water and Sanitation
Goal 7: Affordable Energy for all
Goal 8: Decent Work and Economic Growth
Goal 9: Industry, Innovation and Infrastructure
Goal 11: Sustainable Cities and Communities
Goal 12: Responsible Consumption and Production
Goal 13: Climate Action
Goal 15: Life below water
Goal 16: Life on land

How Småkraft prioritises the sustainability goals

Småkraft is well positioned with as many as 9 of the goals integrated in the way we operate. Still, we recognize that some of the biggest challenges when working on Sustainability and ESG related matters are fragmented areas of responsibility, with lack of priorities & focus.

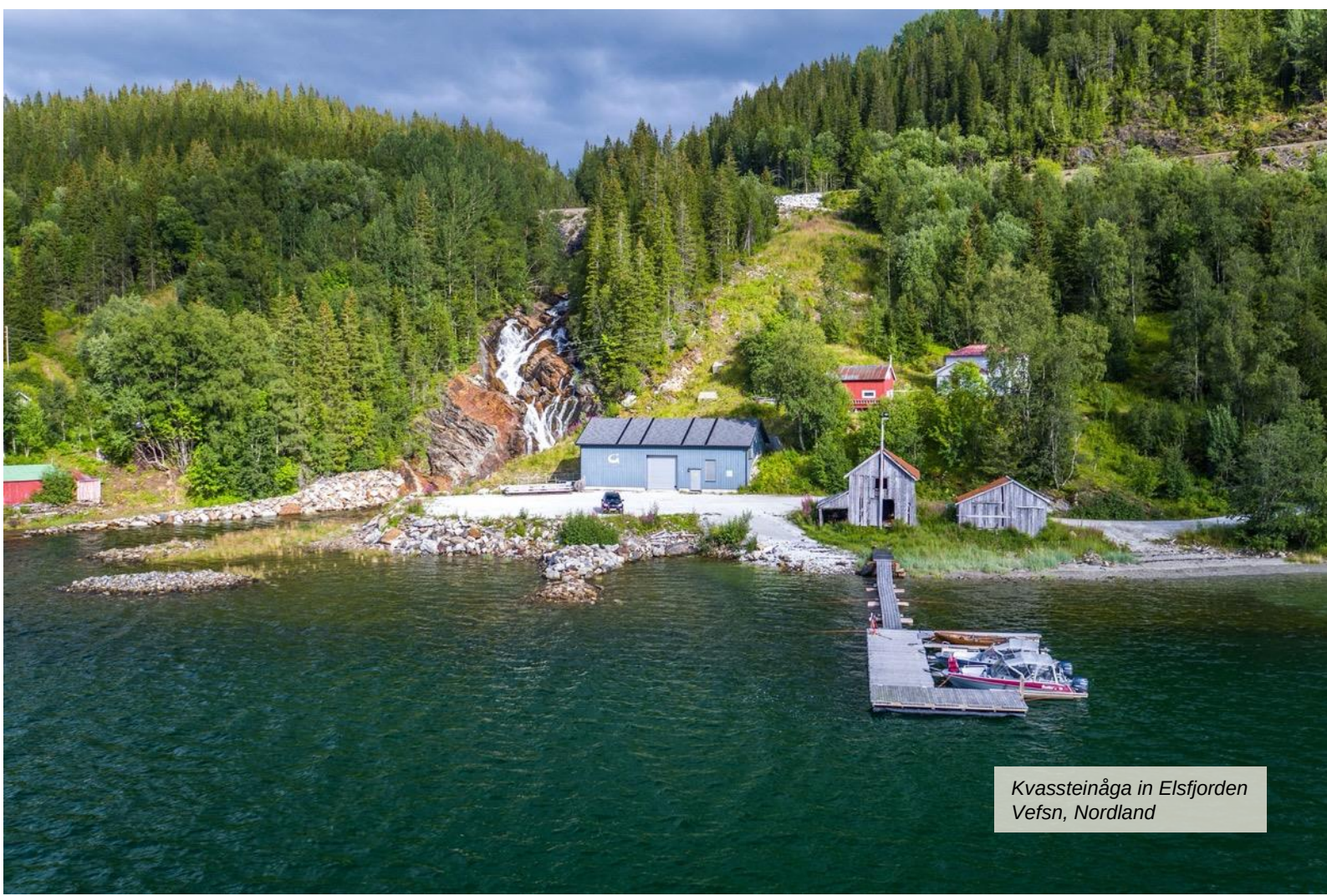
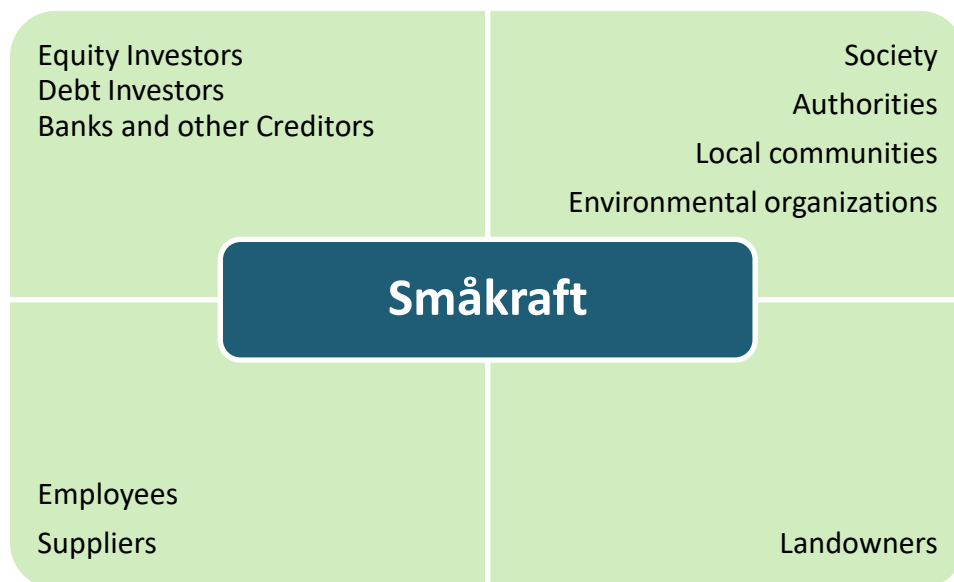
In our ESG policy, Småkraft has selected the 4 potential sustainable goals that are most important to us:

Goal 7: Affordable Energy for all
Goal 11: Sustainable Cities and Communities
Goal 13: Climate Action
Goal 15: Life on land



STAKEHOLDER ASSESSMENT

Several interest groups show interest in Småkraft and how we interact with our surroundings. Through dialogue, active engagement, meetings, feedback and discussions, we have identified the following Stakeholders:



Kvassteinåga in Elsfjorden
Vefsn, Nordland

MATERIALITY ASSESSMENT

Based upon the stakeholder assessment, Småkraft appointed an independent consultant firm to engage with stakeholders. We also performed a survey of employees in the company. These interviews and surveys are the foundation for the materiality assessment. The illustration below shows how important different ESG- topics are for internal stakeholders (employees) and external stakeholders (i.e. investors, creditors, landowners, authorities, other stakeholders in the small scale hydro sector, etc.). The topics are scaled in a matrix ranging from low to medium to high.

External stakeholders	High	Stakeholder dialogue Indirect economic contribution Energy consumption Green house gas emissions Corporate Governance Water quality	How our business affects local communities How we contribute to society Environmental risk assessments and action plans Society: risk assessments and action plans Human rights Training	Compliance: environmental regulations Climate- risks HSE Renewable Energy Biodiversity
	Medium			
	Low	Pollution Ethics and anticorruption Market behavior	Human rights and supply chain Environmental focus through the value chain	Good employer Pollution HSE in value chain Equality and diversity
		Low	Medium	High
		Internal		



ESG FOCUS AREAS

Based on the assessments, the following areas have been selected as most relevant for Småkraft. We give priority to, and focus work on these topics.

Environment:

Energy and Climate
Biodiversity
Emissions
Local Pollution

Social

HSE – own employees, partners and suppliers
Creating Values in Communities

Governance

Ethical behavior and anti-corruption
Gender Equality and Diversity



Urdsdalselva power plant,
Vefsn, Nordland

CHAPTER 1: ENVIRONMENT

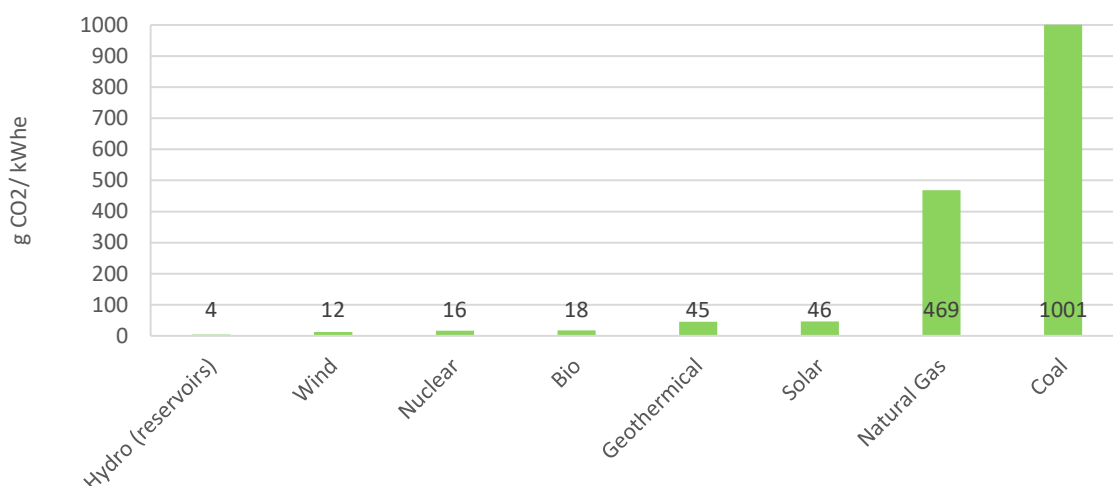


Energy and Climate

Our production

Småkraft produces renewable energy. With 4 gCO₂/ kWh, Hydropower is the technology with the lowest emissions over the lifetime of the powerplants. Hydropower plants have very long life expectancy compared to most other forms of energy production. Run-of- river hydro power plants are not included in the normal comparisons between the technologies¹. However, other more specific studies show that run-of-rivers have a mean gCO₂/ kWh of 5 being competitive to other renewable technologies. ²

Emissions from different technologies producing energy (50 percentile)³



Together with our partners, Småkraft develops new small-scale hydropower projects that produce new renewable energy in the Norwegian, Nordic and European Energy Markets. In line with Sustainability Goal 7, new renewable energy is the most important means to reduce climate change.

	2019	2018	Source/ Explanation
Produced Energy (GWh)	890	818	Energy fed into the grid
Production Capacity (GWh)	1 155	1082	Normal hydrological production capacity year-end
Småkraft's share of Production Capacity GWh	1 067	1 028	Normal hydrological production capacity year-end
Number of Power Stations end of year	110	106	
Installed Capacity end of year (MW)	364	348	

¹ Raadal, H.L., 2011a. Recommendations for GHG Accounting for Green Power Purchases. Memo sent by email to The GHG Protocol Initiative's work on GHG Power Accounting Guidelines, by Mary Sotos and Stephen Russell. April the 4th 2011.

² Raadal, H.L., 2011a. Recommendations for GHG Accounting for Green Power Purchases. Memo sent by email to The GHG Protocol Initiative's work on GHG Power Accounting Guidelines, by Mary Sotos and Stephen Russell. April the 4th 2011.

³ Moomaw, W., P. Burgherr, G. Heath, M. Lenzen, J. Nyboer, A. Verbruggen, (2011)

Energy Consumption

It takes energy to make energy. Småkraft needs energy to heat the power station, to power communication and to power important functions of the Group.

	2019	2018	Source/ Explanation
Consumed energy power stations (GWh) (Estimated)	1,18	0,85*	According to documentation from our main energy supplier
Consumed energy Headquarter (GWh) (Estimated)	0,08	0,08	According to documentation from our landlord
Total consumed energy (GWh)	1,26	0,93	
Consumed energy from district heating (GWh) (Estimated)	0,05	0,05	According to documentation from our landlord
Acquired and cancelled Guarantees of Origin (GWh)	1,5	1,0	Confirmed and verified by Axpo
Energy from non- renewable sources.	0	0	

* Småkraft does not have any system to measure consumed energy in the power stations in 2018 or 2019. We believe that the measured energy consumption is lower than actual consumption. Småkraft works to improve the measurements, and measured consumption in 2019 is more representative than in 2018.

Småkraft has brought and cancelled own Guarantees of Origin to track consumed energy. More information about this could be found under «Emissions».



Blådalselva power plant,
Masfjorden, Vestland

Biodiversity

Minimal water levels

Energy production from small-scale hydropower plants affects the local environment around the power station and installations. These are not a natural part of the surrounding environment, and some parts may act as physical barriers for the life in- and around the rivers.

To produce electricity, Småkraft utilizes some of the water that runs in the river. The remaining water flow in the original river, between the intake and the power station, will at times be lower than it would have been without the infrastructure development. This may affect the biodiversity in and around the river, hence our business has

“Our experience shows that Småkraft works seriously with biodiversity. In our river the number of fresh water pearl mussels has increased after we commissioned the power plant. ”

Land owner

impact on Sustainability Goal nr. 14 “Life on Land” and nr. 15 “Life in Water.”

Some of our hydropower plants are subject to minimum water flow regulations, given by the concession. This means that they must let a certain level of water flow in the original river, provided there is water available. Maintaining minimum water flow in the parts of the river affected by our operations, helps reduce the potential negative impact on biodiversity. For periods when the water flow in the river is too low to produce energy, and/or the excess of water is more than intake can

swallow, the river will flow with its natural water levels.

Our installations control the minimum water flow automatically at any given moment in time. The released water volumes per second are displayed at the power station along with the requirements set by the concession, also for by-passers to observe.

Småkraft has some plants that do not have minimum water flow requirements. These plants are either too old to qualify for such requirements, or the authorities did not deem it necessary. Still, on several of these, we have implemented mitigating measures. For example, by releasing additional water from the intake.

	2019	2018	Source/ Explanation
Registered incidents where water flow is below minimum water flow requirements	15	7	None of the incidents were deemed necessary to report. These incidents were all corrected within hours, or we compensated them by releasing extra water over the dams in the period with reduced minimum water flow
Reported violations	0	0	

Bypass valves

Many of our power plants have so called bypass valves. These installations prevent sudden reductions in water level in the river downstream, following abrupt power station stops. Without bypass valves there is a potential to trap fish or leave them stranded. Bypass valves may be a concessionary requirement, and the functionality of these is a priority for the supervisory authorities.

Other biodiversity measures

When developing new hydropower plants, Småkraft and our partners evaluate how our activities affect the biodiversity around the power plant. Typically, we gather assessments and studies from competent and objective consultancy firms. These analyses relate specifically to individual plants, since the surrounding environment will vary from case to case. The corresponding implemented measures will therefore also vary.

During the operational phase, changes in conditions are monitored and the need for implementing risk reducing initiatives is systematically evaluated.

Throughout 2019, our power plants were subject to the following measures:

- internal environmental audits

- environmental training of local operators
- controlled rinse floods
- scientific investigations
- cooperation with biologists to design and build eel- traps

The portfolio also counts a few hydropower plants with reservoirs. These reservoirs have set requirements for highest and lowest allowed water level. This is done to reduce the negative impacts on the biodiversity. Småkraft releases water to fish hatcheries on two of its power plants, namely Lauvsnes and Tau. During 2019, Småkraft faced two external environmental audits. These were at the power plants Holmen and Rasdalen.

Power plants with biodiversity importance	2019	2018	Source / Explanation
Power stations in protected watercourses	1	1	Hølera power station
Power stations in national important salmon watercourses	1	1	Holmen power station. Additionally, Rasdalen power plant and Furegardane power plant are located on rivers to the important salmon river Vosso
Power stations in conservation areas.	1	1	Holmen power station
Physical or economical displaced inhabitants	0	0	
Penalties because of violated rules and regulations	0	0	



Kvassteinåga power plant,
Vefsn, Nordland

Emissions

Our greenhouse gas emissions and how we work with these

As a producer of renewable energy, Småkraft's net emissions are negative. Still, isolated parts of our operations will have climate gas emissions.

Our power plants are spread all over Norway and travelling there often face us with large distances, inaccessible locations and challenging logistics. The normal means of transportation would usually involve a private or leased car, and/or a public airplane, which contribute to direct emissions. Such emissions are registered and assessed by us as an indirect consequence of our operations and is included as Scope 3- emissions.

The Småkraft operational model relies on competent operators, living close to our installations, who can operate and maintain the hydropower plant locally. This enables a fast response time. The need for our internal employees to travel to the power plants is reduced. Our operational do not travel to ensure the plants operate in the normal course of business. This helps reduce travel-initiated climate gas emissions, and costs.

One of the most important Småkraft measure is our continued work to automate and robotize our fleet. More autonomic plants reduce the need for manual visits, and further reduce the emissions of greenhouse gases.

Emissions from transportation

Transport	2019	2018	Source / Explanation
Km driven in car (according to paid car allowance)	54 377	60 155	Based on paid car allowance
Km driven (company car)	93 900	69 999	Based on driving registrations
Total km per car	148 277	130 154	
Km electric car	182	104	Based on paid car allowance
Km per airplane (Estimated)	199	399	We do not yet have systems to measure this reliably
Emissions (tCO ₂) from transport	2019	2018	Source / Explanation
Company cars or per car allowance	10,305	9,046	Calculated based on ssb- numbers from 2018 and personal cars in Norway. The 2018 numbers are adjusted, based on the updated emission numbers from SSB
Plane travel (Estimated)	21,094	42,294	We are not able to measure nor calculate emissions from aviation directly. We thus have assumed that our average travel goes from Oslo to Bergen with a SAS SK 737 700W with 141 seats. According to SAS and their CO ₂ calculator, this flight will have 106 kg CO ₂ e emissions per flight. We have used our measures about total flights and the assumptions above to calculate emissions
Total emissions	31,399	51,340	Estimated emissions

Småkraft's inevitable emissions

Emissions (tCO ₂ e)	2019	2018	Source / Explanation
Scope 1 – Direct emissions Emissions from producing electricity	0	0	
Scope 2 – Indirect emissions Emissions from energy consumption.	0	0	All consumed energy is documented renewable with guarantees of origin
Scope 3 – Other indirect emissions Emissions from transportation	31,4	42,9	Estimated indirect emissions based upon registered transport per car and estimated travel per plane
Total emissions from our business	31,4	42,9	
Total purchased climate quotas	-31,4	0	Compensated via the company Choose and CDM- certified Gold Standard Climate Quotas
Net direct and indirect emissions from our business	0	42,9	Before calculating the substitution effect of our own renewable energy

Småkraft AS has some unavoidable emissions producing renewable energy. We compensate these emissions using CDM-certified Climate Quota certificates.

Småkraft buys certified emission quotas from a small-scale hydro power plant in Laos




Purchase of Climate Quotas

Småkraft has some indirect emissions related to our business that we cannot avoid. To compensate for these emissions, we have purchased certified voluntary climate quotas corresponding to our estimated emissions in 2019.

We have chosen to buy certified climate quotas from a small-scale hydro power project addressing several of the sustainability goals most important to us. We have done this together with the company Choose and the small-scale hydro power project Xe Namnoy 2 - Xe Katam 1 in Laos. The project utilizes unregulated water flow in the rivers Xe Nam Noy and Xe Katam in the south of the country.






Calculation of climate gas emissions

We calculate climate gas emissions based upon energy consumption from transportation and installations and buildings. We classify these emissions in different types, depending on how we emit them. They are classified into Scope 1, Scope 2 and Scope 3.

Scope 1 and Scope 2 CO₂e- emissions in line with the GHG- protocol methodology. Scope 1 are direct emissions producing energy. Scope 2 are indirect emissions producing energy, i.e. energy consumption in the power plants etc. Scope 3 are indirect emissions related to our business. CO₂e- emissions are climate gas emissions where the different climate gases have been recalculated to the equivalent of CO₂- emissions. Emissions from transportation in rental cars, leased cars, company cars and aviation is included in Scope 3 this year, as Småkraft argues that these are indirect consequences from our business. Cancelling GoOs, the Group has reduced the emissions from consumed energy. Statnett cancels GoOs for the consumed energy for 2019 and the previous year. Electricity is a neutral energy bearer without direct emissions. The various sources that generate the power, however, have related emissions. The GoOs, that Statnett awards renewable energy producers in Norway, document that the groups energy production is based on Norwegian hydropower. We calculate the climate gas emissions from electricity based on a factor of 530 g CO₂/ kWh, which corresponds to the European production mix, in line with the Norwegian Water and Energy Authority (NVE) declaration of 2016.



Tveitaskaret hosts one of our power plants. The power plants are in densely populated areas. We depend on fossil fuelled cars to get to the power plant.

Local pollution

During 2019, Småkraft did not register any violations of the regulatory requirements on our power plants. We encountered one environmental incident, when we observed oil spill in the gravel pit. No oil was found in the river afterwards.

The business does not emit any significant ozone reducing pollution. We have therefore not prioritized data-gathering in this area.

	2019	2018	Source / Explanation
Serious environmental incidents	0	0	A significant incident were the effects are still visible one month after the incident.
Environmental incidents	1*	1**	Any incident that negatively influences the environment

* Oil- spilling in Knutfoss powerstation. Spilling was observed in gravel pit. Only small amounts observed and everything was collected and restored. No oil leakage registered in the river.

** Oil- spilling from excavator at Ursdalen Power Plant. No oilspill observed in the river.

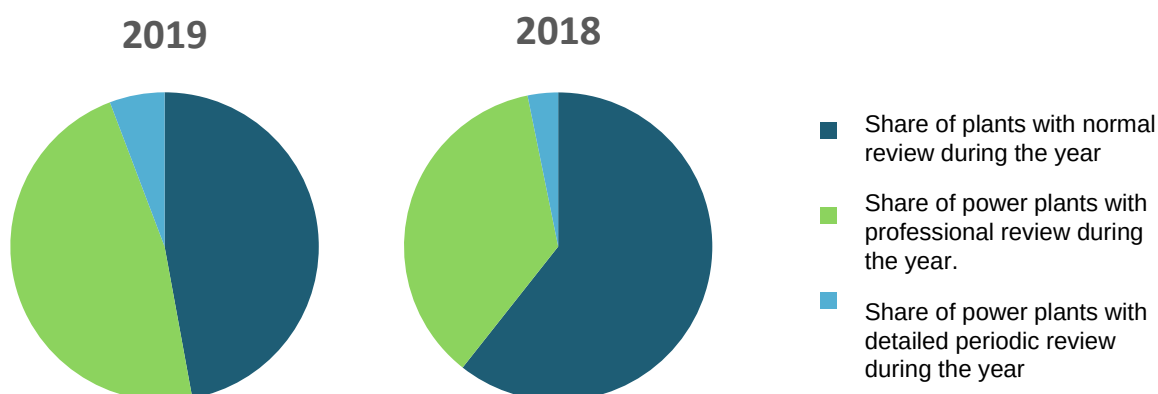


Årvik power plant,
Ullensvang, Vestland

Environmental reviews and audits

Småkraft conducts annual environmental inspections at all our power plants.

- Inspecting if the penstock pathway is revegetated.
- Inspecting if the areas around the intake, power station and other land used during the construction phase revegetates naturally.
- Inspecting any specific environmental concerns from the concession- or planning phase. Such concerns could be specific local concerns about fish, river pearl mussels, or other biological topics.
- Inspection of specific environmental concerns we have observed when operating the power plant, such as new unwanted species or similar.
- Measurements and audits of minimum water flow
- Inspecting the terrain, leakages and unnatural water in the ecosystems around the power plant.



Watercourse technician (VTA) performs an annual audit in one of the rivers

Land use

Small power plants need to utilize land area. This is especially true during the construction phase, where one must intervene in nature to build the power plant, construction roads and pipelines. Land use represents an impact on biodiversity. We are working to reduce the area intervention in the development and construction phase. After the power plant is put into operation, we follow up that the land revegetates, so that the total area intervention over the lifetime of the power plant is reduced as much as possible.



The pictures show land use of a construction road before and after resetting the revegetating.

Land use (daa = 1000 m2)	2019	2018	Source/ explanation
Temporary land use* (Estimated)	2 352	2 538	Land use that over time will reset and revegetate
Permanent land use* (Estimated)	132	117	Land use that will not reset and revegetate during the lifetime of the power plant
Total land use*	2 485	2 655	Total land use

* It is very demanding to measure land use exactly. Småkraft has chosen to calculate the land use in connection with the construction of intake, power station, pipeline, landfill / bulk outlet, rig area, roads and grid connection based upon the detailed plans in the granted concession. Much of the area will be affected to a greater extent during the construction of the power plant and the first years thereafter. This applies, for example, to the penstock, which will revegetate after a few years. In our assessments, land use goes from temporary to permanent within 10 years after the power plant is put into operation. We believe that this is a conservative assumption, and that land use is in fact somewhat lower.



The photo shows the penstock in Ryssdal power plant. The penstock and its pathway now are fully revegetated

CHAPTER 2: **SOCIAL**



HSE – our employees, suppliers and third parties

Småkraft owns and operates power plants which utilizes kinetic energy from the water to produce electricity of different voltages. Without proper safety measures the hydropower plants may impose serious danger on our own employees, partners, suppliers and third parties.

We train our own employees and associated partners in the areas of health, safety and security. Småkraft employees participate in regular training courses and the company arrange training sessions for third party operators. We have safety routines and regularly report on health and safety related issues.

During 2019, Småkraft has continued to update routines with regards to its Health, Safety and Environment-framework (HSE) and reporting structures. We do this to make sure that we have unified routines. Particular focus is paid on routines and reporting frequencies by our suppliers and operators.

When it comes to third party, Småkraft builds physical and psychological barriers to dangerous areas in and around our hydropower plants. We install fences, tolls, signs, locked doors, alarm systems and information posters.

During 2019, we have implemented safety measures such as:

- Built new fences and upgraded old ones.
- Built other physical barriers
- Installed alarm systems to warn about changes in water flow
- New and more informative signs and posters
- Training sessions for selected operators within the fields HSE and environment.
- Training of own personnel
- Audits
- New processes, routines and reporting methods

	2019	2018	Source/ Explanation
Employees	20	19	
Average sick leave	3,9%	0,9%	During 2019 Småkraft has faced long- term sick leaves, having large effects on average sick- leave numbers
Employees that will retire the next five years	5%	0%	
Employees that will retire the next 10 years	10%	10%	
Operators who have performed training courses the last three years	42	33	Småkraft has a long- term goal that one operator per plant (110 operators) has performed training courses over the last three years
Numbers of reported HSE-incidents	56	25	During 2019, Småkraft has continued to work on new reporting routines. An increasing number of reported HSE-incidents demonstrates an improved safety awareness

How Småkraft creates value locally

Småkraft's installations may have negative impact on the water in the river, and this could potentially damage tourism and outdoor life. The appearance of the hydropower plants could be visually disturbing in areas without other human made installations. They could also be of hindrance to people wanting to utilize the area affected by our infrastructure.

Småkraft reduces these negative consequences as much as possible. We monitor requirements in the concession and do our utmost to make sure that our hydropower plants fit into the surroundings in a good way. Still, some negative consequences are inevitable for the local society.

"APG are a global, long- term responsible investor, providing pensions to 4,7 million Dutch citizens. By fairly sharing the fruits of our investments with land- owners, municipalities and local businesses, we aim to contribute to the well- being of stakeholders and development of local communities. "

Majority Shareholder APG



Therefore, one of Småkraft's main goals, is to share the values we create with the communities. This is closely related to the sustainability goal nr. 11 «Sustainable cities and societies». We pay out land lease to the landowners of the rivers that we use to produce energy. This is done through private lease

agreements. We also pay property tax to the local municipality, which provides services for local residents, and local suppliers are used to develop new projects. We recruit first line operators from the local community

Specific actions Småkraft has done during 2019 include:

- Financial support of selected social initiatives
- Halted the operation of a power plant to make river rafting possible for a period
- Implemented security measures to allow public swimming upstream the intake
- Worked to improve and standardise our communication with landowners.
- Participated in openings of power stations and had dialogues with landowners

"Småkraft will, in its nature, have a negative impact on local conditions. For us as landowners, it is important that such consequences are addressed seriously. Småkraft does. We believe It is important that the landowners who feel the negative consequences on daily basis, get positive values from the power plants, as well. This is the core of the Småkraft- model."

Andreas Råheim, landowner Hølera power plant

Numbers in EUR	2019	2018	Source/ Explanation
Paid property tax to the local municipality	2,068,000	2,135,000	Annual report
Paid land lease to landowners	2,439,000	3,253,000	Annual report



*Skarvåga power plant,
Vefsn Nordland*

Dam safety

Småkraft is responsible that our facilities comply with the authorities' requirements for community safety. Our dams, intakes and penstocks must be safe, and we need to prevent damage to people, to the environment and to properties. We assess the risk and categorize all power plants in different risk categories.

Small scale hydro power plants face various requirements during the planning-, construction- and operational-phase. Småkraft employs and contracts skilled personnel qualified to satisfy such requirements.

Inspections and audits on our power plants include:

- Dam and intake safety inspections
- Penstock- and tunnel safety inspections
- Functional testing of closedown mechanisms for tunnels and penstocks
- Functional testing of sockets and overflows
- Inspections of leaks from ponds, pipes, penstocks and drainages
- Inspections and assessments of hazardous areas at our power plants
- Inspections of special conditions at the relevant power plant
- Inspections of auxiliary facilities from the construction phase of the power plant
- Inspections of signs and other security measures for visitors and third party at the power plant.

Both internal Småkraft procedures and external requirements set requirements to these audits with regards to both how they are performed and how often.

We reassess the classification of the facility every 15 or 20 years. These reassessments contain a complete safety review.

During 2019, NVE (The Norwegian Water Resources and Energy Directorate) did not perform any external dam audit at any of Småkraft's facilities.



Dam and intake, Holmen power plant, Voss/ Aurland, Vestland

CHAPTER 3: **GOVERNANCE**



Ethics and anticorruption

Doing the right thing and transparency

At Småkraft, we believe that ethical business is about doing the right things. To make the right choices, both in strategic decisions, as well as in the sum of all the decisions made by our employees on a daily basis. That is what makes up the culture of the company.

Småkraft is founded on the principle that we share resources with stakeholders. To us it is fundamental that we act transparently with landowners, authorities, investors and creditors. We share information about the choices we make, how we are thinking, as long as this does not interfere with our commercial interests. Stakeholders do not necessarily need to agree on all the conclusions we make, but they should at least understand where we come from.

“Småkraft understands that being big comes with responsibility. They recognize this, and they behave well. Småkraft shares with other stakeholders. They contribute in several ways, such as research on how climate change can affect small hydro power production, knowledge about taxation in our sector or knowledge about grid connection- topics. ”

Stakeholder in the small hydro- sector

Anticorruption

There are several aspects about doing the right thing. We do what we say we will do, and honour the agreements we make. We contribute to an efficient small-scale hydropower market by sharing in-house resources and competencies with our stakeholders, but also with the entire sector. We do not exploit our dominant market position.

Småkraft has implemented internal control and governance mechanisms to reduce the possibility for fraud.

During 2019, Småkraft has experienced several attempts on “CEO- fraud”, where employees at the company receive fake e- mails with false and misleading directions. None of these attempts were successful.

Småkraft has not registered any corruption, where the company, employees or partners have been involved.

Market behaviour

With almost 20% of the Norwegian small-scale hydropower plants, Småkraft is an important market participant in the Norwegian small-scale hydropower segment. In our sector negative market behaviour would relate particularly to acquisition and landowner processes. In sales processes, Småkraft always try to accommodate the sellers preferred methodology to ensure a fair competition, and in landowner processes we seek a transparent communication with all involved parties.

Småkraft has not faced any fines or other restrictions because of violated rules or regulations when it comes to market behaviour.

Diversity and gender equality

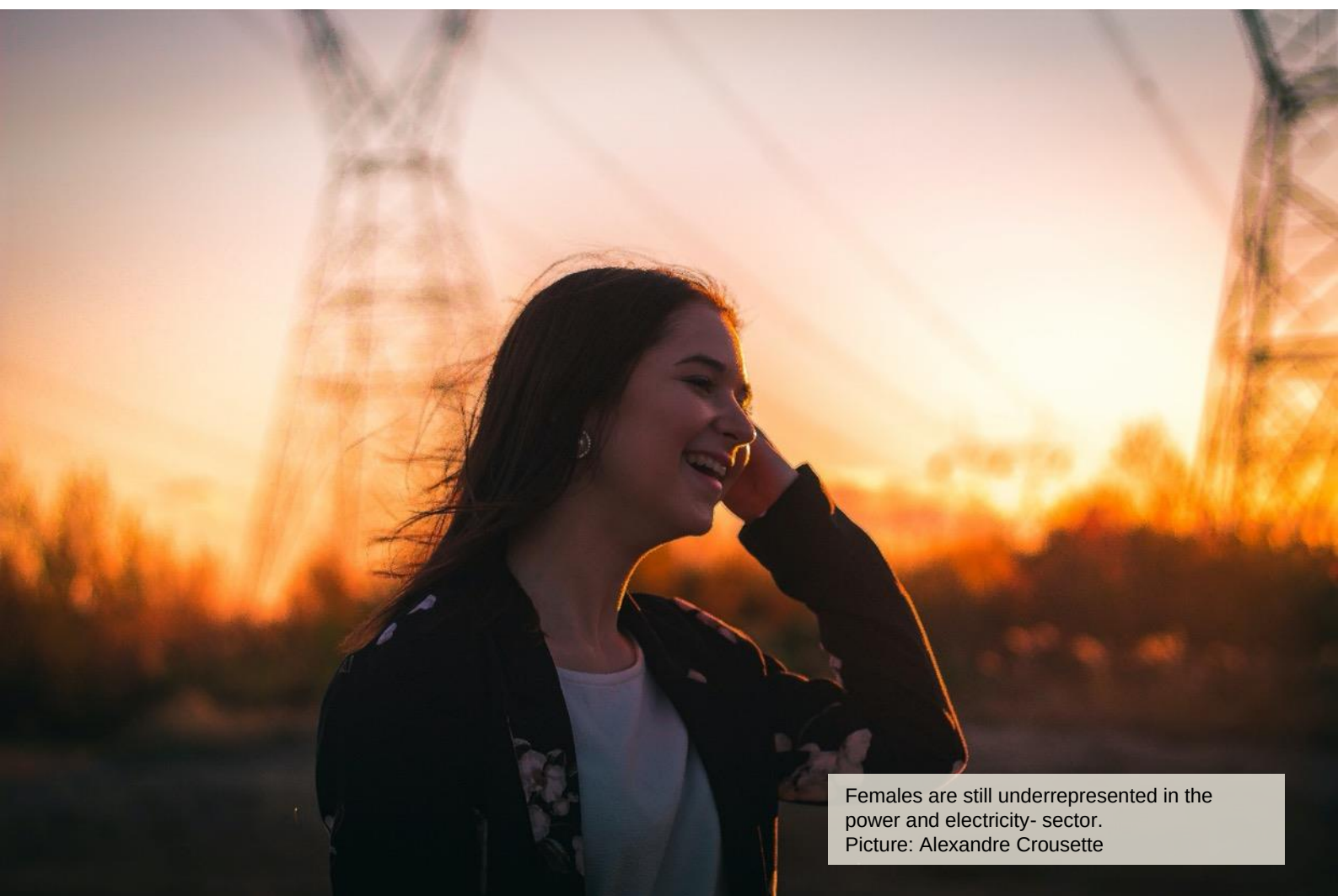
At Småkraft, we rely on the collective competencies of our employees and partners. We believe that diversity in background, interests and knowledge is important to form the best team possible to solve the tasks we face.

The power sector in general, and specifically the small-scale hydropower, has over time been dominated by men. Småkraft has an ambition to work against this imbalance, but we acknowledge that we still have a long way to go.

Previously, we have tried to encourage female candidates to apply for positions in the company, but we have observed that male applicants far outweigh the female ones. This also holds true for informal requests for employment.

As a result, Småkraft now works on introduction/trainee programs for graduating candidates. This combined with our strategy to increase our visibility, we believe will improve diversity

	2019	2018	Source / Explanation
Share of females in the Board of Directors	20%	20%	1 board member out of 5
Number of female (male) employees in the company	2 (11%)	2 (11%)	
Female operators	4	4	
Female (men) among new employees	0 (1)	0 (2)	



Females are still underrepresented in the power and electricity- sector.
Picture: Alexandre Croussette

CHAPTER 4: CLIMATE RISK



Introduction about climate risk

2018 and 2019 clearly showed how a renewable company such as Småkraft faces consequences of climate changes. 2018 had a long and cold winter and then a very dry summer. Both seasons negatively affected the level of water running in our rivers, and the production in 2018 was low compared to a normalized year. Throughout the year power prices were high in all price areas because of the low hydrological balance. 2019 was different than 2018, but we faced a very cold spring and a late spring flood. When the temperatures rose rapidly, snow evaporated instead of flowing through our turbines. Furthermore, November was one of the driest Novembers ever in large parts of Norway.

Climate changes are unpredictable, and it is very hard to evaluate which scenarios and events will occur during the lifetime of our business. Still, we try to assess and describe climate risk from our perspective.

Our climate risk reporting describes how Småkraft could be affected by future climate changes. All assessments and descriptions of risks and possible events are subject to great uncertainty. We emphasize that we in the following risk assessment do not describe all risks and not necessarily all climate risks either.

“As a long-term investor, it is for us crucial to understand how climate change is to affect our investments. We encourage Småkraft to carry on with their contribution to the European energy transition and are pleased the firm pro-actively reports on sustainability metrics.”

Majority Shareholder APG

Physical risk

Our definition:

«Risk for physical events because of climate changes»

Physical risk – Acute risk

Our definition:

“Risk for acute events because of extreme weather that have negative impact on our financial position”.

Småkrafts installations convert large physical powers into electricity. Extreme floods impose increased pressure on our power plants. Such extreme situations may cause harm to the power plants. Power stations may stop, we may lose production and we may face costs to get the power station back in operation. Financial risk following such events normally will be limited, as private and public insurances cover the losses. However, if damages because of flooding over time increase, the insurance premiums may rise. This has a small impact on our financial position.

Physical risk – Chronical risk

Our definition:

«Risk that long-term changes in weather and climate have negative impact on our financial position.”

Småkraft depends to a large extent on rain to produce energy. Changes in precipitation patterns and temperatures may affect both our production and the prices in the Nordic energy market. Climate changes could potentially lead to cold winters and dry summers, which may affect our production negatively. Climate changes could also lead to more extreme rain and/ or snow melting, which would increase the water loss over our dams. However, another consequence could be warmer winters and/ or wetter summers, which would have a positive effect on our production and our achieved price discount.

Transition risk

Our definition:

«Risk that the transition to a low carbon society in line with the Paris- agreements ambitions have negative consequences for our business.”

Transition risk – Politics and regulations

Our definition:

"Risk that climate changes lead to changes in regulations that affects our business in a negative way."

In the Norwegian and Nordic Power market today, the CO₂- quotas and coal prices have large impact on the power prices. Especially, prices on the CO₂- quotas is affected directly by politics and regulations. Changed quota curves affect the CO₂- prices and this affects the power prices.

If acute and chronic risk related to our power plants increase over time, new regulations may affect our power plants. This may impose need for investments and financial effects.

Transition risk – Technological changes

Our definition

"Risk that new technological solutions affect our business negatively."

Climate changes create new commercial opportunities that may result in new technological innovations and disruptions. Renewable and clean energy is one of the most important areas to achieve the ambitions of the Paris- accord and large resources are spent to create new technological solutions to solve the world's increasing need of energy. New and more cost- efficient technologies may potentially outcompete old solutions like small-scale hydropower.

Transition risk – Market Changes:

Our definition:

"Risk that the market Småkraft operates in change negatively because of climate changes."

We sell renewable electricity from renewable sources. This leads to three revenue streams. 1) Revenues from sale of power. 2) Revenues from sale of el- certificates. 3) Revenues from sale of Guarantees of Origins. When people are more aware of the climate changes, it is not unlikely that the value of renewable energy increases. We believe that it is less likely that the market for renewable energy is changed because of climate changes. However, we emphasize that there are many other factors that affect our markets other than climate changes.

Transition risk - Reputation:

Our definition:

"Risk that climate changes affect Småkraft's reputation negatively."

As our business already is aligned with the Paris- accord ambitions, we believe this risk is less relevant for Småkraft.

Liability risk

Our definition:

"Risk that Småkraft faces liabilities with connected negative economic consequences arises because of decisions (or lack of decisions) related to climate politics or climate changes."

Småkraft already operates in line with the Paris- accord ambitions. We believe that our activities contribute positively to achieve the climate goals.

Extreme weather and especially floods may affect our installations. Irrespective of weather and climate situations, Småkraft is responsible for maintaining security during dam and penstock breaches and other critical events

How Småkraft works with climate risk

Physical damages to our installations and/ or other property

All Småkraft power plants, except one, have an approved risk classification, that states the risk related to the particular plant. The power plant without risk classification is currently in a classification process.

A concession sets a risk classification based on objective criteria and assessments. Old power plants have classification based on application during the last ten years. Especially three items affect the risk classification: 1) danger to life and health, 2) danger to other infrastructure because of breach of dam, penstock or other damages, and 3) danger to environment and third-party property.

Based on this classification, Småkraft performs supervision of the installations with different frequency and competence. We carry out extraordinary inspections at special events. Based on the classification from the concession, external auditors from the authorities carry out audits of the power plants every 15th to 20th years. In connection with these audits, Småkraft have third party consultants carry out updated flooding assessments. These take into account climatic changes in the rivers. If the internal assessments or external supervisions conclude that new measures are necessary, Småkraft will prepare and implement such measures. Småkraft also evaluates that the classification is correct at both internal and external reviews.

Revenue loss because of volatile and extreme water flow

Småkraft is currently working on a new dynamic risk policy, which to a greater extent than before takes into account increased short term volatility in water flow and in the price picture. This risk policy aims to reduce the risk of loss of income as a result of short- term volatility in the water flow and in the price picture. This work has been going on throughout 2019.

Småkraft has also reviewed all its power plants to investigate whether there are power plants that are particularly well suited, topographically, for making regulatory reservoirs. Such will be able to increase the expected annual output of the power plant with only limited interventions in the nature. This is because we plan to use natural reservoirs upstream the intake to store water during periods of high-water flow. We will also obtain higher prices with such regulation reservoirs, since that will allow us to release the water when there is more need for energy and thus higher prices

This assessment was started in the second half of 2018. As of 31 December 2019, Småkraft has identified about 5 power plants which may qualify for regulatory reservoirs. As of 31 December 2019, we have applied for the possibility of regulation at two of these power plants and have constructed one reservoir. Both have received a positive decision, but one has been appealed to the Ministry of Petroleum and Energy. Småkraft plans to carry out work on these installations over the next three-year period.

Småkraft has also considered adapting the capacity of power plants to be able to absorb larger volumes of water flow, but as a rule, the pipe gate is the limiting factor. It will therefore not be economically appropriate to increase capacity. In Småkrafts last license applications, however, Småkraft applies for higher capacity to absorb larger volumes of water in flooding seasons.



Together with various scientific institutions, Småkraft looks at how climate changes may affect the water patterns in Norwegian rivers in the years to come. While this work has not yet been concluded, it suggests that temperatures and the water flow in general has increased over the years and will continue to increase. Increased water flow may lead to higher production in the winter, but it also may lead to more floods that we are not able to utilize. Småkraft will continue to work with these matters and investigate how we could transfer the general scientific results to our specific power plants.

Income loss due to extremely wet years with low power prices

Småkraft is well equipped to cope with particularly wet years with associated low power prices due to our underlying financial model. Our new risk policy has a clear goal of ensuring that downside protection in such scenarios will continue to be embedded. .

Risk of changed licensing conditions because of climate change

Småkraft continuously follows up on changes in our facilities, changes around our power plants and changes in the water flow in the rivers. Småkraft believes it is well prepared for changes in license terms by proactively following up and tackling changes in and around the power plant, which can affect the power plant over time.



Climate changes affect the normal seasonal fluctuations and how the water flows in the rivers.

Climate scenarios for Småkraft power plants

Collaboration with the University of Bergen

Our power plants will produce renewable energy for future decades. It is important for us to understand how much water there will be in the rivers in the future, and how much we will produce in the years to come. Climate change affect the climate and rainfall throughout Norway. Different geographical and climate zones will face different changes. We expect large individual variances. Since spring 2019, Småkraft has worked together with the Geophysical Institute in Bergen to understand changes in production at different powerplants. Our goal is to gain good understanding on how unregulated power plants in Norway will change over the next 60 to 80 years.

Applied method

We have simulated how climate changes will affect the production in the period 2021 – 2081 compared to the time series used when the respective power plant was granted a license.

We have extracted publicly available scenarios from 10 different research institutes, all of which have modelled the climate of the future. All of these models are based on an RCP 4.5 scenario. RCP 4.5 means that the greenhouse gas concentration in the atmosphere will increase somewhat by 2060, but that they will stabilize by the end of the century. This scenario calls for a sharp reduction in greenhouse gas emissions, where emissions can only increase slightly until 2040, but then have to decline. From 2080, emissions must be stabilized at a level corresponding to 40% of emissions in 2012. On a global scale, a temperature- increase of around 2.5 degrees Celsius is calculated under this scenario.

For each individual power plant, we have used the watermark that was used to applying for a concession. The watermark is bias- corrected against all of the ten scenarios we have extracted for future simulation of the individual watermark. This means that we adjust future runoff based on observed real historical runoff.

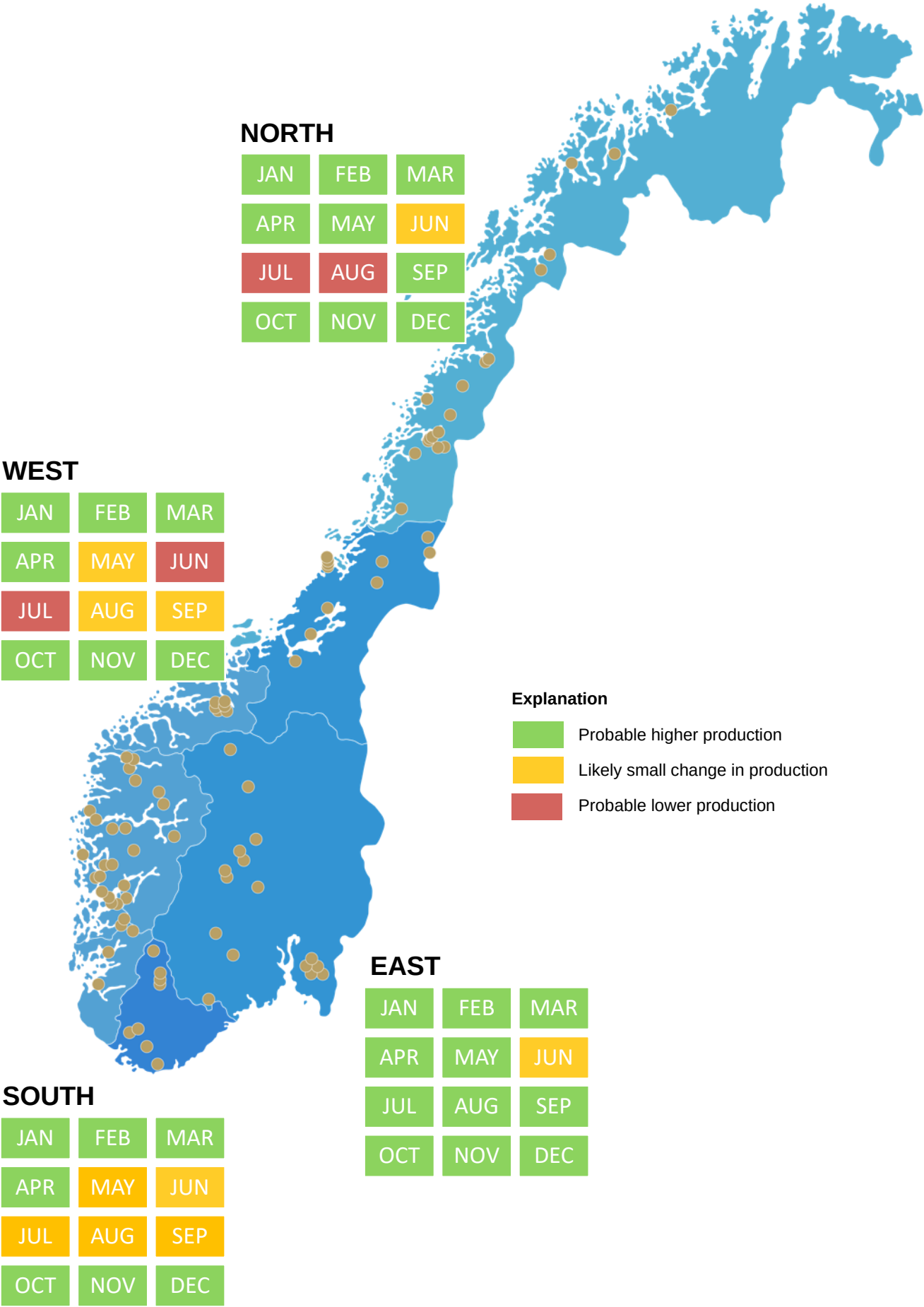
So far, we have simulated future production for 46 of our 110 power plants. We have then grouped the power plants into regional areas and compared expected future production in an RCP 4.5 scenario against historical expectations. We have categorized production changes within +/- 15% as "likely small change in production", production changes above + 15% as "probable increase in production" and production changes below -15% as "probable lower production".

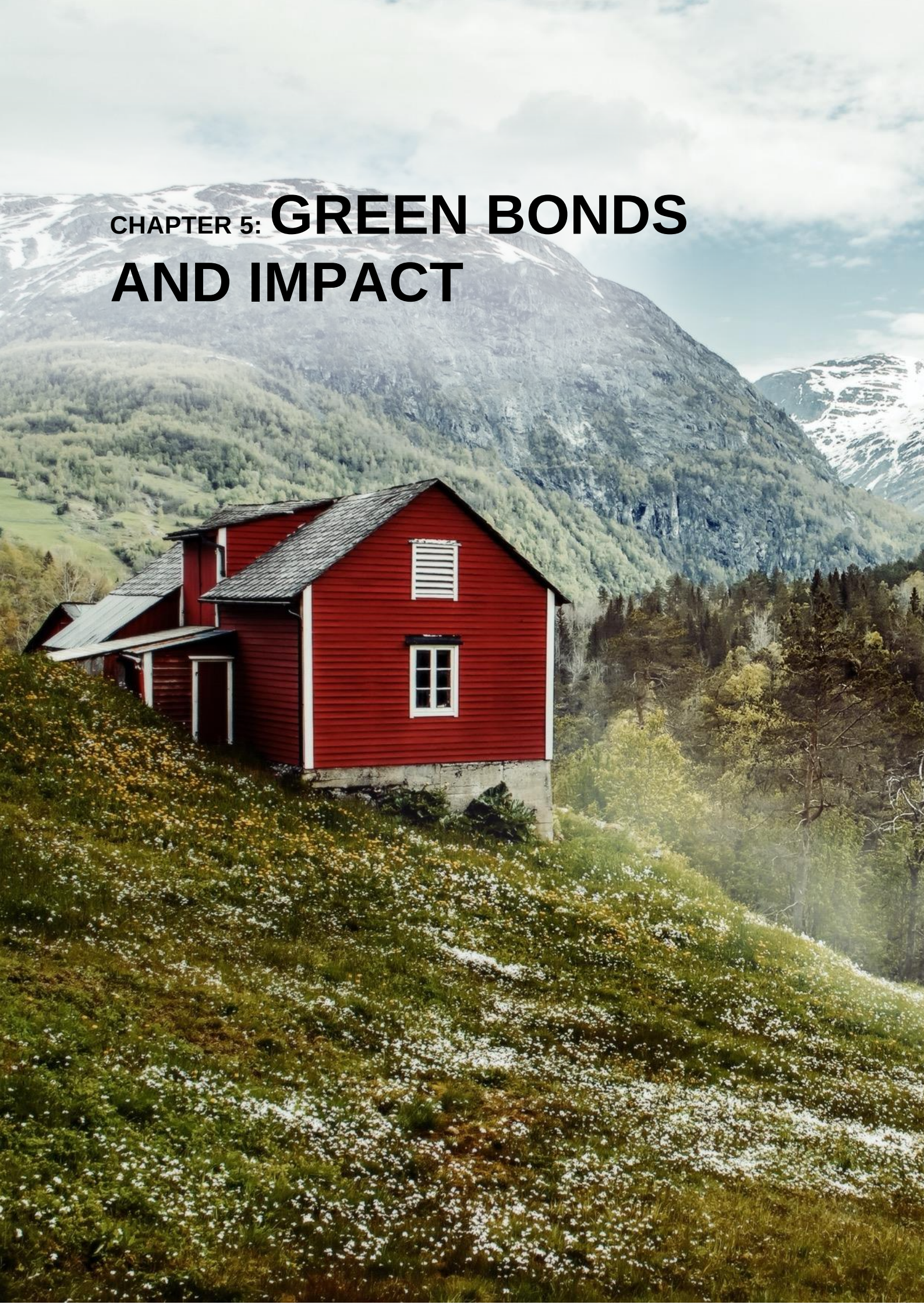
Scenario results

We consider our results as preliminary, and it is too early to draw full conclusions. We have produced the scenarios based upon considerable uncertainty: which climate scenario will actually occur globally? Are historical watermark measurements correct? Have we addressed flood losses and volatility properly? Several other factors and variables are uncertain, as well.

Overall, however, the results suggest that the RCP 4.5 scenario will result in more winter production due to milder climate and less snow in most parts of Norway, while spring and summer production will be lower due to more and longer drought periods. The snow melting is also coming earlier, and consequently the spring flood will come earlier in several places. However, there are large individual differences between the power plants.

Climate scenarios for the next 60 years by region





CHAPTER 5: **GREEN BONDS AND IMPACT**

Statement of invested amount financed by Green Bond loans at 31.12.2019

Loan	
Approved instruments in accordance with the Green Bond Framework.	50 MEUR
Non- approved instruments in accordance with the Green Bond Framework.	0

	Approximately amount	Total renewable energy		New renewable energy (investment after 2000)	
	MNOK	GWh	CO2- reduction	GWh	CO2- reduction
Total Investments	5000	1155	9 306 tCO2 yearly	1 054	8 492 tCO2 yearly
Green Bond share	50	157	1 265 t CO2 yearly	157	1265 tCO2 yearly



Ytre Alsåker power plant,
Ullensvang, Vestland

APPENDIX: FACTORS AND REPORT QUALITY

Report Quality

In 2019, Småkraft does not report according to GRI or other objective sustainability standards. We have tried to structure the report so that it will be as recognizable and comparable as possible.

The report covers all companies in the Småkraft- Group. The report is not externally verified to confirm that the data collected is in objective. However, information gathered for the report and dissemination of this report has been endeavoured in the best possible way. To the extent that background information is interpreted, this is done for the purpose of providing as accurate and relevant a view as possible of the particular situation. The data that form the basis for the reporting on the external environment are partly direct measurement data and partly self-reporting of aggregated figures, partly average calculations and some estimates. Where estimates have been made, the data is marked, and we have tried to make as accurate estimates as possible. However, because of interpretation, the data has varying degrees of precision.

Contact person for inquiries for the report is CFO, Erik Røysem Sterud.

Calculation factors emissions

	Emission	Source
Cars	69,5 g CO ₂ e/km	SSB: average CO ₂ -emissions for new cars in 2018 in Norway
CO₂e-emissions electricity production Norway 2016	16 g CO ₂ e/kWh	NVE 2016 declarations

Calculation factors

	Emission	Source
Yearly reduction Norwegian Hydro	8,0573 tCO ₂ e/GWh	Internal calculator built on GHG- protocol for calculating climate gas emissions
Expected reduction for the lifetime of the powerplant	322 tCO ₂ e/GWh *40	Internal calculator built on GHG- protocol for calculating climate gas emissions. Based on a conservative assumption that remaining lifetime on average is 40 year



Ursdalen power plant,
Vefsn, Nordland

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