

# Climate Action Plan for Hordaland 2010-2020

Short version of the Climate Action Plan for Hordaland 2010-2020



HORDALAND  
COUNTY COUNCIL



**” *Man-made climate change is the biggest political challenge we are faced with globally and locally. We must be bold and find new solutions!***

Climate change is a gradual process. Norway is beginning to feel the consequences, but other countries are more affected. Climate challenges are global and must be met through international agreements and with the use of national policy instruments. Action must be taken regionally and locally, and we must act now. We have no time to lose.

Research, knowledge and a change of attitude must be followed up by commitment and action in order to succeed. The Climate Action Plan for Hordaland 010-2020 has goals for reduced emissions of greenhouse gases, energy goals and goals for climate adaptation. The Climate action plan describes what we can do in our own county. In order to achieve results, the plan must be translated into practice. I hope it can boost motivation, commitment and activity in public and private enterprises and organisations, in business and industry and among individuals.

- **We need businesses that see the value of energy efficiency and environmental certification.**
- **We need citizens who are aware of their energy consumption and who contribute to reducing greenhouse gas emissions.**
- **We need courageous, committed politicians who actively advocate climate and environmental issues.**
- **We need entrepreneurs and local initiatives that see the possibility of new and more environmentally friendly solutions.**

Good luck!

*Torill Selsvold Nyborg*

Torill Selsvold Nyborg  
County Mayor

# Climate change and greenhouse gas emissions

The Climate Action Plan for Hordaland 2010-2020 was adopted by the County Council in June 2010. It has three main topics: 1) Greenhouse gas emissions, 2) energy and 3) adaptation to climate change. It is based on national policy and UN's Intergovernmental Panel on Climate Change (IPCC), which states that man-made greenhouse gas emissions must be reduced by 50-80% by 2050 if we are to avoid the most serious consequences of climate change. Mankind is facing a formidable challenge, and the people of Hordaland must share in the responsibility.

The measures are gathered in an action programme that is revised annually. The whole plan is available in Norwegian at [www.hordaland.no/klima](http://www.hordaland.no/klima).

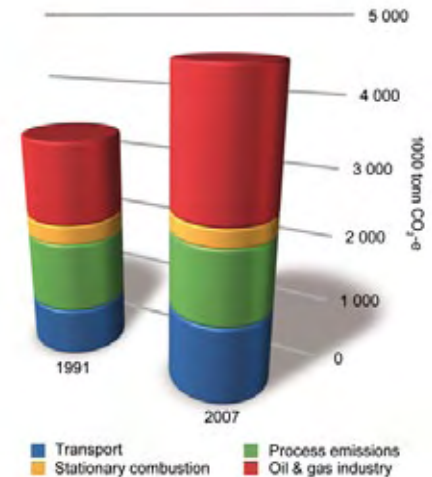
## Until 2100 Hordaland can expect:

- **An increase in temperature of 1.9-4.2°C**
- **A rise in the sea level of 67 - 78 cm (+/- 25 cm)**
- **Spring tides of up to 240 cm in exposed areas**
- **Up to 36% increase in precipitation**
- **Up to 50% increase in storm water per year in the coastal zone.**

This will affect biodiversity, food production, buildings, infrastructure, health and social conditions and may cause flooding and landslides. To combat rising temperatures and climate change, we must reduce the emission of greenhouse gases to the atmosphere (from burning coal, oil and gas; from deforestation etc.). The effect is calculated in CO<sub>2</sub> equivalents, where CO<sub>2</sub> = 1 CO<sub>2</sub> equivalent, CH<sub>4</sub> = 23 CO<sub>2</sub> equivalents and N<sub>2</sub>O = 310 CO<sub>2</sub> equivalents.

In 2007, Hordaland's greenhouse gas emissions were 4,516,000 tonnes of CO<sub>2</sub> equivalents, an increase of 35% since 1991 and 12% of all emissions from mainland Norway. The oil and gas industry and transport were the main sources of the increase.

The population of Hordaland's activities and consumption cause large emissions in other countries, and consequently our 'carbon footprint' is five times greater than the emissions that are measured regionally.



**Total emissions of greenhouse gases in Hordaland 1991-2007.**

Source: Statistics Norway

# Objectives

***Vision: The climate-aware county of Hordaland takes responsibility and creates sustainable solutions.***

## Greenhouse gas emissions:

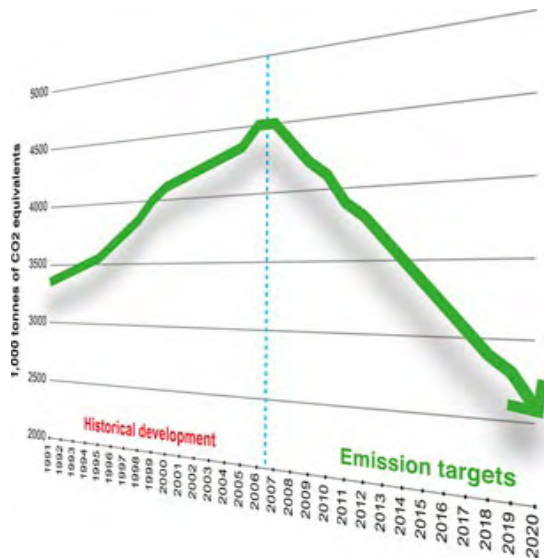
Greenhouse gas emissions in Hordaland shall be reduced by 22% by 2020 compared with 1991 and by 30% by 2030 compared with 1991.

## Energy:

Energy consumption shall be reduced and made sustainable through increased efficiency and the use of renewable energy. By 2030, the energy requirement for all purposes is to be supplied by renewable energy sources as far as possible, without losing biodiversity.

## Climate adaptation:

Hordaland shall be as well prepared as possible for climate change. Climate adaptation shall be based on the precautionary principle, research and knowledge about local conditions.



The figure illustrates a 22% reduction in greenhouse gas emissions in Hordaland by 2020. To achieve this, emissions must be reduced by 144,000 tonnes of CO<sub>2</sub> equivalents every year starting from 2008, an average annual reduction of 4,1%. From 2006 to 2007, total emissions were reduced for the first time, by 2%. If Hordaland is to reduce its climate footprint to two tonnes per inhabitant by 2050, national emissions, including those from offshore oil and gas, must be reduced correspondingly.

# Energy

A modern economy uses various forms of energy. Meeting the demand for energy and dealing with the impact of energy consumption is one of the world's greatest challenges today. There has been a steep rise in the demand for energy and the use of fossil fuels has a negative impact on the climate. From a climate perspective, we need to switch from non-renewable to renewable energy production wherever possible and we must also reduce energy consumption.

Virtually all Norwegian electricity production is hydro-powered. Hordaland has 15% of the national production. As part of an international energy market, we are committed to reducing energy consumption and to utilising the county's natural advantages to produce other renewable energy. It is a question of using the right form of energy for the right purpose. It is sensible to use thermal energy for heating and electricity for tasks that require more high-grade energy.

## Energy objectives:


**Energy consumption in Hordaland shall be reduced and made sustainable through improved energy-efficiency and use of renewable energy. By 2030, all energy needs, for whatever purposes, must largely be met through the use of renewable energy sources, without loss of natural diversity.**

## Strategies for more sustainable energy consumption:

- A Energy consumption in Hordaland must be changed so that it becomes sustainable and climate friendly
- B Energy consumption in Hordaland must as far as possible come from renewable sources of energy
- C Hordaland shall be a pioneer in the production of renewable energy
- D Hordaland shall have a robust, stable and flexible energy supply
- E Energy transmission from producers to consumers must take place in a manner that minimises energy loss



The Bergen based company, Sway AS, has been working with floating wind energy since 2001. The Sway float includes an extra long wind turbine tower weighted heavily below. It can be compared to a floating bottle partly filled with sand. This stable and relatively light construction allows for a large turbine to be placed on top of the floating foundations. The turbine is fixed to the seabed by a simple anchor.



**”** *Sway shows that Norwegian technology is a world leader within floating offshore wind turbines. We contribute to the production of more sustainable energy on the open sea.*

**Michal Forland, Managing Director Sway AS**

# Consumption and waste

Climate challenges will require major changes in consumption patterns, especially in wealthier countries. In Norway, private consumption has almost doubled in the course of the past 35 years. The amount of waste is also increasing. In 2007, each Norwegian produced 429 kg of waste, 100 kg more than in 1999.

Greenhouse gas emissions from waste in Hordaland remained at a constant level from 1991 to 2007 (0.2 million tonnes of CO<sub>2</sub> equivalents). The objective is to minimise emissions of greenhouse gases from all waste. However, a big share of the emissions from our consumption is not included in the statistics for Hordaland because we largely consume imported goods, produced in other countries.

To achieve a more climate-friendly consumption, we need to learn more about the products we consume. Producers and consumers must be made aware of the impact of their activities on energy consumption and climate.

## Consumption objectives:

**Consumption in Hordaland shall be dominated by goods and services with the lowest possible environmental impact, energy consumption and greenhouse gas emissions. By 2013, the growth in the consumption of environmentally harmful products shall be lower than the county's population growth. As from 2020, our total consumption of harmful products shall be reduced.**



Photo: BIR

## Waste objectives:

**Waste generation shall increase at a significantly lower rate than the economic growth rate. The amount of waste for recycling shall be increased to 80% by the end of 2020.**

## Strategies to reduce greenhouse gas emissions from consumption and waste:

- A: Environmental labelling of goods and services
- B: Environmental certification of public undertakings
- C: A reduction in the amount of waste
- D: More recycling of materials and energy recovery from residual waste
- E: Follow-up of existing policy instruments



Photo: BIR

**”** *It is not hard to think in an environmentally friendly way. Sorting waste is child’s play at Søre Skogvei nursery school.*

**Lisbeth Iversen, Commissioner for Urban Development,  
Climate and Environmental Affairs, Municipality of Bergen**

**The Municipality of Bergen has over 16,000 employees and is the largest employer in the region. The City Council has decided to introduce environmental leadership in its own companies by green certifying all its departments. Starting with the town hall in 2009, all the departments, rest homes, schools and nursery schools will follow. The municipality’s climate and energy action plan includes a specific environmental policy.**



# Buildings

Buildings account for one third of all man-made emissions of CO<sub>2</sub> worldwide – mainly as a result of energy consumption. In Norway, buildings account for 40% of the total energy consumption and 50% of the electricity consumption. The objective is to reduce the need for heating and replace direct electrical heating by heat from new renewable energy sources and/or heat pumps. This way, we can free electricity for other purposes where high-grade energy is needed.

Hordaland has about 350,000 buildings (2005). Of these, 137,000 are residential houses with a combined living space of 26.5 million m<sup>2</sup>. The living area per person has increased by almost 50% from 1990. In Hordaland, the average energy consumption per household is 154 kWh per m<sup>2</sup> (2007). This is below the national average, due to the mild climate in Western Norway.

Hordaland County Council owns 376,000 m<sup>2</sup> of buildings, with an average energy consumption of 150 kWh per m<sup>2</sup>. The objective is for energy efficiency to contribute to a reduction in energy consumption in buildings owned by the county council of 1% by 2013, 12% by 2020 and 37% by 2030.

## Objectives for buildings:

**Energy consumption in buildings in Hordaland shall be reduced by 20% by 2020 compared with 2007.**

## Strategies for reducing greenhouse gas emissions from buildings:

- A: Energy efficiency measures, energy conversion, use of more climate friendly materials
- B: Better knowledge and information
- C: Implementation of measures in buildings owned by the county council



Sjur H. Rørlie is managing director of the building company Johs. E. Øvsthus at Voss. The company builds passive and environmentally friendly houses. The compactly designed house (SHELTER type) is made of climate neutral materials – mainly wood. No plastic, foam or other oil based or energy intensive materials have been used. The house is built of hygroscopic (moisture balancing) materials and uses natural ventilation.



” *The house has a compact design and is made of environmentally neutral materials. Electricity consumption is only 4600 kWh per year due to use of solar and wood power as the main sources of energy.*

**Sjur H. Rørlien has moved into his active house in Voss**

# Land use and transport

In 2007, emissions in Hordaland from transport amounted to approx. one million tonnes of CO<sub>2</sub> – a quarter of the county's emissions and an increase of 22% since 1991. The growth in traffic is affected by population growth, changes in the structure of business and industry and the pattern of housing development. The region of Bergen has the biggest growth in Hordaland, both in terms of population and jobs.

Land is a non-renewable resource. The soil stores large amounts of carbon, and agricultural land, undeveloped and recreational areas play an important role in the overall climate account. Climate concern is an important argument in favour of protecting these areas in municipal land-use plans.

## Objectives for land use:

**Land use in Hordaland shall be efficient, reduce the need for travel, encourage the use of more environmentally friendly means of transport and prevent the destruction of valuable areas.**

## Transport objectives:

**Emissions from mobile sources in Hordaland shall be reduced by 20% in 2020 compared with 1991. Emissions from road traffic shall be reduced by 20% in 2020 and by 30% by 2030, compared with 1991.**

## Strategies to reduce greenhouse gas emissions from transport:

- A: More efficient land use
- B: Digital communication
- C: More public transport and more environmentally friendly transport
- D: Restrictions on road traffic
- E: Reduce emissions from vehicles



Department of Transport and Communication at Hordaland County Council is responsible for the county's public transport, the county roads, ferries and boat connections. The department has overall responsibility for traffic safety in Hordaland. The county council's company "Skyss" plans, purchases and markets the public transport services governed by Hordaland County Council.



” *As Director of Transport and Communication  
I will work to introduce a competitive public  
transport system in order to meet our climate  
challenges and reduce local air pollution levels.*

Anne Iren Fagerbakke,  
Director of Transport and Communication,  
Hordaland County Council



# Business and industry

Emissions from business and industry account for approx. 70% of all emissions in the county and increased from 2.29 to 3.14 million tonnes of CO<sub>2</sub> equivalents from 1991 to 2006 – an increase of 37%. Statoil Mongstad is the source of the biggest emissions: 1.7 million tonnes of CO<sub>2</sub> equivalents in 2007.

Business and industry play a key role in reducing greenhouse gas emissions, by developing new technology and reducing energy consumption. The Climate Action Plan for Hordaland refers to the oil and gas industry, industry and mining, agriculture, fisheries and aquaculture.

## Objectives for business and industry:

**Enterprises in Hordaland shall have low greenhouse gas emissions and low energy consumption per unit of production in relation to the industry to which they belong. Through innovation and creativity, these enterprises shall contribute to the development of sustainable solutions to climate issues.**

## Strategiar:

- A: More environmentally friendly production in Hordaland
- B: Climate friendly development of fisheries and aquaculture in Hordaland
- C: More climate friendly agricultural production in Hordaland



Tryg Forsikring is the second largest nordic insurance company with offices in Denmark, Norway, Sweden and Finland. The main office is in Ballerup outside Copenhagen. Of the 1550 employees the company has in Norway, 850 are based at the Norwegian head office in Bergen. The company history can be traced back to 1728 and the first Norwegian office was established in Bergen in 1880 under the name "Vesta". The company changed its name to Tryg in August 2010. The well-known Bergen trademark of the life ring was taken on by the entire company Tryg.

” *Our extensive use of video meetings gives many rewards; video meetings give us unlimited and effective meetings, employees no longer have to travel and they save the environment and make us great savings.*

**Kjerstin Fyllingen, Managing Director, Tryg Forsikring**



# Technology

Technological development and new technological solutions are important means to reduce greenhouse gas emissions. Norway has a particular interest in, and expertise relating to, carbon capture and storage (CCS), wind power (especially at sea), pellets and clean-burning stoves, biofuel, solar cells, hydrogen technologies (fuel cells), heat pumps and low-emission vessels. We need to secure long term research and development in these fields.

## Technology objectives:

**Use the existing expertise and develop new competence to contribute to meeting the climate challenges.**

## Strategies:

- A: Technology development and research
- B: Transition to new technologies
- C: Knowledge and recruitment



Eidesvik Offshore is a modern, innovative company operating ships within supply, seismology and subsea. Several of their vessels have been designed by their own project development team in cooperation with customers and ship designers. The company was the first in the world to develop and run a cargo ship on natural gas. The company operates 21 ships throughout the world and the main office is at Bømlo.

” *Eidesvik is revolutionising shipping with our gasdriven vessels and onboard fuel cell technology. Gas as fuel reduces CO<sub>2</sub> emissions by 20% and fuel cells halve the CO<sub>2</sub> emissions from the onboard electricity supply in relation to other vessels.*

Johan Fredrik Meling, Managing Director, Eidesvik ASA



# Climate adaptation

Climate change affects society as a whole. The various levels of administration, sectors and enterprises must map, plan and implement measures to prepare us for the impacts of climate change. FylkesROS Hordaland 2009 (the risk and vulnerability analysis) assesses our vulnerability to climate change based on what we know today. The analysis must be further developed as new knowledge is acquired. We must apply the precautionary principle to areas in which we have inadequate knowledge. The impacts of climate change must be seen in conjunction with economic and social change.

## Climate adaptation objectives:

**Hordaland shall be as well prepared as possible for climate change, and climate adaptation shall be based on the precautionary principle, research and knowledge about local conditions.**

## Climate adaptation strategies:

- A: Development of knowledge
- B: Securing of buildings, roads, other infrastructure and biodiversity
- C: Climate adaptation of naturebased industries
- D: Implementation of climate adaptation in work on public health and social conditions.

# Cooperation

In Hordaland, we will cooperate to solve climate challenges. The establishment of a climate network for Hordaland will help to implement the plan. The Planning and Building Act and the Act relating to Public Procurements are important legal policy instruments to ensure that the plan is complied with.

The government contributes financially through measures such as purchasing emission allowances and imposing carbon tax. The proposed scheme for government purchasing of local carbon allowances, put forward by the Norwegian Association of Local and Regional Authorities (KS), is good and should be adopted.

## Strategies for reducing greenhouse gas emissions through cooperation:

- A: Implement the Climate Action Plan for Hordaland
- B: Develop and use new policy instruments and technology
- C: Knowledge, competence and cooperation, with particular focus on young people

**” Climate change will result in more extreme weather conditions and create a greater danger for landslides and avalanches. The County Governor will cooperate closely with the County Council and the municipalities in order to introduce good climate adaptation initiatives in our region.**

**Lars Sponheim, County Governor in Hordaland**

**As the state's regional authority, the County Governor plays an important role in climate work related to the municipalities. In 2009 the County Governor in Hordaland carried out an up to date risk and vulnerability assessment for Hordaland. Climate change is a central issue in the report "FylkesROS Hordaland 2009".**

# Overview of the targets

## ENERGY

Strategy: Targets:

<b>A</b>	<b>1</b>	Energy consumption in households, public undertakings and the service sector shall be reduced by at least 20% in 2020 compared with 2007. Improved energy efficiency shall be the first choice.
	<b>2</b>	Energy consumption in industry shall be made more efficient. Energy consumption per unit produced should on average be reduced by at least 20% in 2020 compared with 2007.
	<b>3</b>	Waste heat from industry shall be made available as a source of energy for other activities.
<b>B</b>	<b>4</b>	Hordaland shall use the right type of energy according to its purpose. In new buildings larger than 500 m <sup>2</sup> , at least 60% of our heating needs shall be met through alternatives to direct use of electricity and fossil fuels, and by 2020, this share shall be increased to 80%.
	<b>5</b>	The use of oil and natural gas for stationary purposes shall be reduced by 80% by the end of 2013 (compared with 2007) and be completely phased out in 2020.
	<b>6</b>	The biofuel plant in Rådalen is an important step in the work of replacing oil-fuelled heating systems in the most densely populated part of Hordaland. The county council will therefore make active efforts to ensure that more waste is sent to BIR's plant.
	<b>7</b>	The public sector should make active use of its role in ownership of businesses so that they prioritise climate friendly initiatives.
<b>C</b>	<b>8</b>	Hordaland will stimulate the development, production and use of new renewable energy sources. Expertise, research and education in the energy field shall be strengthened. Measures must be put in place to ensure development, production and access to markets/end users.
	<b>9</b>	Hordaland shall produce energy from renewable sources while minimising conflicts concerning land use. The county's natural diversity, recreational areas and valuable landscapes shall be taken into consideration in accordance with the county's sub-plan for small hydroelectric power plants.
	<b>10</b>	Rationalisation and modernisation of existing hydroelectric power plants.
<b>D</b>	<b>11</b>	The capacity and operation of the power grid must secure supply of electricity in Hordaland. It must also be possible to decrease peak demand in order to reduce the risk of power outages due to overloading of the power grid during certain periods.
	<b>12</b>	All new buildings larger than 500 m <sup>2</sup> shall be low-energy or passive buildings and have water-borne heating.
	<b>13</b>	Test projects for building low-energy and passive houses shall be encouraged in suitable areas.
<b>E</b>		Targets are currently under consideration.

## CONSUMPTION AND WASTE

Strategy: Targets:

<b>A</b>	<b>1</b>	All products, goods and services with a significant carbon footprint that are produced in Hordaland shall be environmentally labelled by 2020.
	<b>2</b>	At least 50% of imported products and goods shall be environmentally labelled in accordance with the international standard by 2020.
	<b>3</b>	By the end of 2013, accounts of greenhouse gas emissions during the transport phase shall be kept for all imported goods and products.
<b>B</b>	<b>4</b>	All public undertakings in Hordaland with at least ten employees shall be environmentally certified by 2020. At least 25% shall be environmentally certified by the end of 2013.
<b>C</b>	<b>5</b>	Waste generation shall increase at a significantly lower rate than the economic growth rate. As from 2020, waste production shall be reduced.
<b>D</b>	<b>6</b>	By the end of 2020, 80% of all waste shall be recycled.
	<b>7</b>	Residual waste from biogas plants shall be used as fertiliser and as far as possible replace synthetic fertilisers.
<b>E</b>	<b>8</b>	Follow-up on existing policy instruments.

## BUILDINGS

Strategy: Targets:

<b>A</b>	<b>1</b>	The use of fossil fuels in buildings shall be reduced by 80% by the end of 2013 and be phased out by 2020.
	<b>2</b>	The use of electricity to cover the heating needs in existing buildings shall be reduced by 10% by 2013 and 20% by 2020.
	<b>3</b>	In new buildings, at least 60% of the heating needs shall be met through alternatives to direct use of electricity and fossil fuels.
	<b>4</b>	The energy needs of all houses in Hordaland shall be reduced by 350 GWh by 2020.
	<b>5</b>	Promote the use and development of environmentally friendly materials, products and technical solutions with low levels of greenhouse gas emissions.
	<b>6</b>	Encourage the building of more passive and low-energy houses and the setting aside of suitable residential areas/building sites for this purpose.
<b>B</b>	<b>7</b>	Hordaland shall have a complete and operative expert community in the field of energy friendly buildings that can give advice on energy efficient solutions to homeowners, contractors and local authorities.
	<b>8</b>	Hordaland shall be the leading region in Norway in environmental housing development by 2020.
<b>C</b>	<b>9</b>	The county council's buildings shall serve as an example of environmental and climate friendly construction and renovation.

## LAND USE AND TRANSPORT

Strategy: Targets:

<b>A</b>	<b>1</b>	Soil resources play an important role in natural carbon storage and flood buffers and therefore must be protected.
	<b>2</b>	Support Hordaland's population centre structure.
	<b>3</b>	Hordaland's spatial planning challenges shall be resolved through competence building and cross sectoral cooperation.
<b>B</b>	<b>4</b>	By 2020, digital meetings shall replace at least 20% of work-related travel in Hordaland's public undertakings. By 2013, digital meetings shall replace at least 20% of the county council's work-related travel.
<b>C</b>	<b>5</b>	The number of public transport users in the Bergen area shall be increased by 50% from 2007 to 2020. Strategies and targets must be developed to increase the number of public transport users in the rest of the county.
	<b>6</b>	Trains shall be the most attractive means of passenger and freight transport between Bergen, Voss and Oslo.
	<b>7</b>	By 2020, rail transport of goods shall be doubled, sea transport shall be increased by 20% and road haulage shall be reduced correspondingly.
	<b>8</b>	By 2020, at least 20% of all passenger traffic between Hordaland and the rest of Southern Norway shall be switched from planes to buses and trains.
	<b>9</b>	By the end of 2020, the number of journeys on foot in the Bergen area shall be increased by 50% (from 19% in 2008). In the rest of the county, the number shall be significantly increased.
	<b>10</b>	The percentage of bicycle travel in the Bergen area shall be increased from 3% in 2008 to at least 10% of all travel in 2020. In the rest of the county, the percentage shall be significantly increased.
	<b>11</b>	In 2030, at least 70% of all movement of persons in the Bergen area shall take place by public transport or be based on renewable energy. In the rest of the county, car traffic shall be significantly reduced.
<b>E</b>	<b>12</b>	By 2020, at least 20% of all light vehicles shall be rechargeable motor vehicles. The rest shall as far as possible run on non-fossil fuel.
	<b>13</b>	All the county council's vehicles shall run on the most optimal fuels from a climate perspective.
	<b>14</b>	All heavy vehicles shall switch to more climate-friendly fuel solutions by 2020.
	<b>15</b>	All future tender competitions relating to public transport in the county shall include requirements for the use of renewable energy.
	<b>16</b>	Good incentive schemes shall be introduced regionally/nationally to speed up the work on carbon-neutral fuels such as electricity and biogas.
	<b>17</b>	The shipping industry in Hordaland shall start using the most climate friendly shipping technology and offer the most sustainable sea transport in the world by 2020.

## BUSINESS AND INDUSTRY

Strategy: Targets:

<b>A</b>	<b>1</b>	As many private businesses in Hordaland as possible shall be environmentally certified. At least 25% of the businesses with more than ten employees shall be environmentally certified by the end of 2013.
	<b>B</b>	<b>2</b> More climate friendly fisheries and aquaculture in Hordaland.
<b>C</b>	<b>3</b>	Better utilisation of the agricultural sector in Hordaland's potential for reducing greenhouse gas emissions and its ability to act as a sink for greenhouse gases.
	<b>4</b>	Development of separate measures to reduce greenhouse gas emissions in agriculture, cf. the Norwegian Pollution Control Authority (2005)

## TECHNOLOGY

Strategy: Targets:

<b>A</b>	<b>1</b>	The county council will use Innovation Norway's policy instruments, various research funds and seed capital schemes to support research and development of environmental technology in order to gain climate knowledge and improve the use of policy instruments. It is an objective to become the best in Europe in the use of fuel cells in various fields.
<b>B</b>	<b>2</b>	Hordaland shall at all times use the best available technology that produces the least emissions per produced unit.
<b>C</b>	<b>3</b>	Hordaland county council will encourage the study of natural sciences and climate change.

## CLIMATE ADAPTATION

Strategy: Targets:

<b>A</b>	<b>1</b>	Climate adaptation in Hordaland shall be based on relevant and updated knowledge.
	<b>2</b>	By 2020, existing public buildings, facilities and infrastructures in Hordaland shall be protected against the negative impacts of climate change.
<b>B</b>	<b>3</b>	With effect from 2013, new public and private buildings, facilities and infrastructures in Hordaland shall only be established in areas where there is no known risk of exposure to the negative impacts of climate change.
	<b>4</b>	Minimise the loss of biodiversity as a consequence of climate change.
<b>C</b>	<b>5</b>	Nature-based industries (agriculture, aquaculture, fisheries, renewable energy production and tourism) shall be prepared for climate change and reorganise/readjust as required.
<b>D</b>	<b>6</b>	Hordaland shall be a healthy, safe and inclusive region to live in regardless of climate change.

## COOPERATION AND POLICY INSTRUMENTS

Strategy: Targets:

<b>A</b>	<b>1</b>	Efficient cooperation on following up and implementing the Climate Action Plan for Hordaland.
<b>B</b>	<b>2</b>	Develop and make use of new policy instruments to achieve our climate objectives.
<b>C</b>	<b>3</b>	Young people in Hordaland shall be provided with such information, knowledge and competence as they may need to make environmentally friendly choices as consumers and future producers.

# HORDALAND





# HORDALAND COUNTY COUNCIL

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Section for Climate Issues and Natural Resources**

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