

HISTORY

1970

Planning was started for utilising the power in the Alta/Kautokeino watercourse. Other outline plans had been prepared for utilising the power of the watercourse.

1974

Application for a concession from Statkraft. Processing of the concession application commences. The board of the Norwegian Water Resources and Energy Directive carried out site visits in the summer of the same year.

1976

Recommendation ready in December 1976.

1978

The bill from the Ministry of Petroleum and Energy was submitted on 10 March. The Norwegian Parliament approved the development plan for the Alta watercourse on 30 November.

1979

The detailed conditions for the development were set out in a Royal Resolution on 15 June.

1982

Because of the extensive demonstrations against the development, work on the construction road to the power station area did not start until the autumn.

The Alta development is the hydroelectric development which has attracted the most attention in both the political world and in public debate. The decision to develop the Alta/Kautokeino watercourse led to the most comprehensive case ever handled by the Supreme Court.

1987

Alta power station was commissioned in May and the official opening was celebrated on 3 September of this year.

SOME TECHNICAL INFORMATION

Power Station	Number of aggregates	Effect (MW)	Average production (GWh / year)	Share of ownership by Statkraft (%)	Entered into operation
Alta	2	150	625	100	1987



CREATING VALUE

Statkraft is Norway's largest land-based taxpayer. Our production activities generate significant wealth, which is returned to society through dividends, taxes and other public liens and charges. Statkraft also contributes actively to Norwegian society, providing financial support to sports & athletics, culture and other activities and good causes. Our social engagement is organised under the auspices of local clubs and associations and in close cooperation with the local authorities who host Statkraft's activities.

THE SOURCE

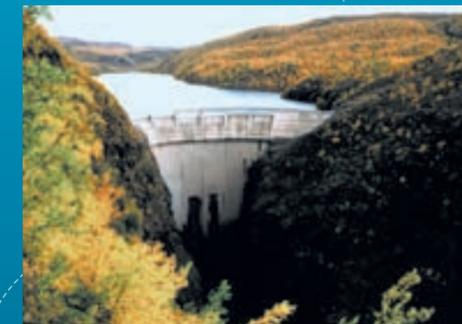
Hydroelectric power is clean and renewable – and is actually a form of solar power. Water that evaporates due to solar energy returns in the form of precipitation. Rivers and waterfalls are used for the production of power, and large dams store the water for later use.

Thanks to hydroelectric power, we need not base our supply of electricity on fossil fuels or nuclear power, as many other countries do. Norway is like an island of clean and renewable hydroelectric power in Northern-Europe.

Our country is built, literally speaking, by hydroelectric power. Our economic growth and progress corresponded closely with the building of power stations. Electricity was the most important production factor in the industrialization of Norway, which freed our country from being a poor and underdeveloped place on the outskirts of Europe. The great change took place after 1850, and gathered speed after the dissolution of the union in 1905 when Norway once again became an independent nation. Electricity was an important part of the foundation for the enormous economic growth which occurred, and at the same time, in the course of a half century, it would completely transform Norwegian homes. The wood-fired stoves with cooking plates in the kitchen and oil lamps were thrown out for good and replaced with electric stoves, panel heaters, lamps, electrical appliances and computers.



ALTA



REGULATION

The Alta/Kautokeino watercourse has its source in the far south of the Finnmark plateau, near the border with Finland.

The power station was constructed about 40 kilometres from the outlet of the Alta river. During the 170 kilometres to its outlet, the river receives infiltration from much of the Finnmark plateau. Salmon migrate up and down the lowermost 40 kilometres of the river. The power station utilises a fall of 185 metres from the 18 kilometre-long reservoir, Virdejavri.

The development covers the regulation of the Virdejavri lake as the only reservoir and the construction of the power station, and affects the stretch between the outlet from Ladnetjavri and the confluence of the Alta river and Joatkajokka.

A dam has been constructed to collect water for power generation. From the 125 metres high dam to the outlet from the power station, the river has been drained along a 2-kilometre stretch. This gives us a reservoir which is 18 km long and which, when it is full, dams 2.9 km². Here, the water is 15 metres higher than the natural water level in the Virdejavri. The quantity of water that we have dammed corresponds to no more than 6% of the water which flowed out of the lake in an average year before the dam was constructed.

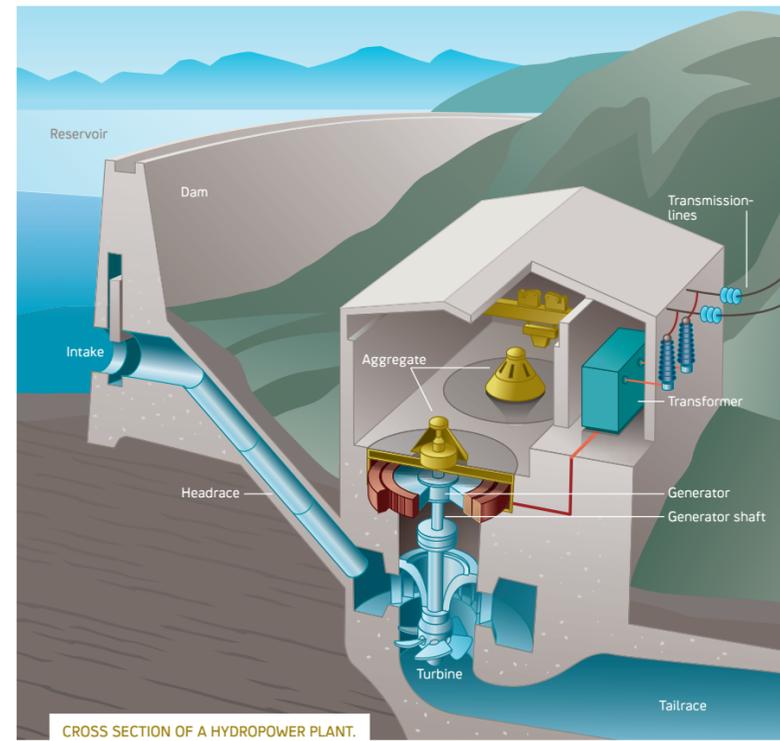


THIS IS HOW ELECTRICITY IS PRODUCED:

The water is collected in dams up in the mountains. It is then released through tunnels and shafts heading down towards the power station and the turbines. The water drives the turbine which spins the generator mounted on the same shaft.

In the generator the mechanical energy is converted to electrical energy. The voltage in the generators in Alta power station are 9.5 and 14 kV (kilovolt).

To reduce losses during transport from the power station to the consumer centres, the voltage is transformed up to 132 kV. Then the power is carried out to the national grid. Before the electricity arrives at your socket, the voltage is once again reduced to a level which suits the stove, washing machine and freezer.



CROSS SECTION OF A HYDROPOWER PLANT.

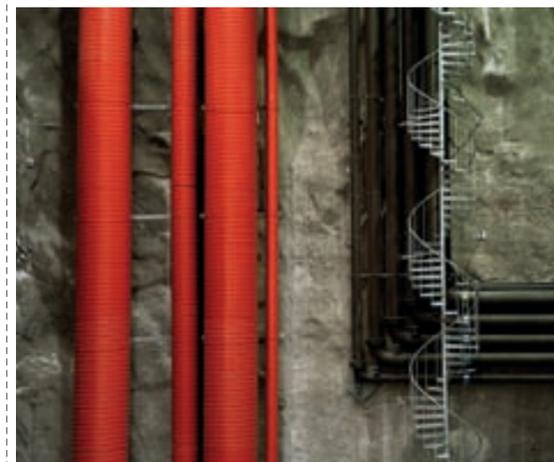
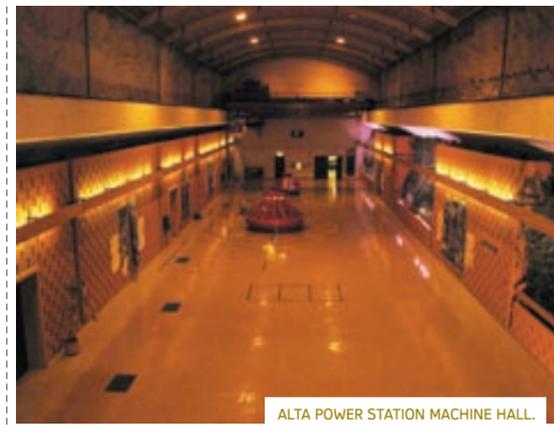
AREAS OF REGULATION



NATURE AND THE ENVIRONMENT

Recent power development schemes take into account environmental and landscaping requirements at a much earlier stage in planning than was the case for developments in previous years. Through a considerable effort in research and development, we also continuously implement measures during and after development to ensure that nature and the environment will be disturbed and affected to the least possible degree.

In order to improve conditions for fish in regulated watercourses, we try various measures. In some cases these are combined with the setting out of fry and juvenile fish. The construction of thresholds, planting and seeding are also done on a large scale. Wherever there is a need, tidying up after previous developments is done.



ARCHAEOLOGICAL INVESTIGATIONS AT VIRDNEJÁVRI.