



Nottveitelva

Nottveit kraftverk Modalen i Hordaland Norge

Oppdragsgiver (Client):
Sofienlund

Eier(e) (owners):
Einar Sofienlund 62,5 %
Svein Nøttveit, 37,5 %



Nøkkeldata (key figures):

- H 290 m bto
- Qm 1,0 m³/s
- Qt : 2,0 m³/s
- P : 5.000 KW
- E : 16 GWh
- Kostnad – 48 mill kr
- Kr/GWh – 3,0

Byggetid (construction time):
18 måneder (months)

Byggeår (year):
06/2011 – 12/2012

Idriftsettelse (commissioning):
12/2012

Finansiering (financing):
To be named (local bank)



Hydrologisk måledam



Reguleringsmagasin



Kraftstasjon nede ved gården

Brief project description

Sofienlund is the responsible engineer for the whole project comprising the following main key design elements: initial planning and concession application, conceptual design, detail design of intake dam and intake structure, penstock, powerhouse, tailrace channel, complete electro-mechanical works and high voltage 6,6/22kV transformer. We will also be responsible for the commissioning.

The project will be a storage reservoir project located on the western part of Norway. The small creek of Nottveitelva has an average water flow of about 0,99 m³/sec. The turbine scaling will be $Q_t=2 * Q_m$. There will be three storage reservoirs.

The dam site will be on a rock basis foundation in a V-shaped gauge. The dam will be constructed as a gravity dam with crushed stones and a ceiling with shot-crete on the water side and plastering on the air side. The intake dam will thus be about 30 da.

The new intake will be a concrete structure constructed as an integrated part of the new dam downstream the present dam. The volume of the intake reservoir is estimated to about 1,5 mill m³. The valve house is outlined above.

The waterways from intake will be through a 1150 m of buried ductile cast irons and ten a drilled micro tunnel of 450 m and in total about 1600 m penstock with DN 1000. The total gross head will be 290 m.

The powerhouse will be in a rock cavern about 50 m inside the rock.

The power grid is only 100 meters away and a 22 kV high voltage power cable will connect with the power grid.

Project team

Project manager	Einar Sofienlund,
Hydrology	Einar Sofienlund,
Civil engineer	Jann Biedilae,
Mechanical engineer	Bjorn Undrum,
Electrical engineer	Einar Sofienlund,
Site Engineer	Svein Nøttveit