



The extension of the Fenno-Skan link (Fenno-Skan 2) is a response to the needs of the electricity market. The submarine cable will increase the electricity transmission capacity between Finland and Sweden by approx. 40 per cent and integrate the Nordic electricity market even more closely. The project will reduce temporary differences between Finnish and Swedish electricity prices which can result if interconnection capacity is insufficient. The interconnection will also reduce losses in the Nordic transmission grids and improve power system security. Fenno-Skan 2 is one of five prioritized cross-sections recommended by Nordel.

### News Corner

**Anne Ventola** was enrolled in Rauma site manager duties. Anne is in charge of site supervision and coordinates the safety matters. She reports to converter project manager Harri Nurminen.

**Rihtniemi-Rauma** overhead line 500 kV upgrade was commissioned in early December last year. The project consisted of conductor and insulator replacements including mechanical reinforcements of towers.



Converter related basic training commenced in Q4, one week both in Sweden and Finland. About 50 people participated in the training sessions.

**The electrode replacement at Lautakari** was commissioned in October. The old electrode made of copper will be demolished during year 2010.

**Rauma substation converter feeder bay** project was commissioned also in October 2009. Some relay and wiring dismantling works will be executed in the next annual outage of Fenno-Skan link.

### Project Status

After successful type tests in June **submarine cable** activities proceeded with copper conductor stranding, commenced in late November. We are expecting to have 97 km of tested cable on turntable at the end of year 2010.

**The converter station** activities have really kicked in the last half

of year 2009. Myriad of performance and network studies are on-going, engaging a lot of experts in Fingrid, Svenska Kraftnät and ABB.

Construction of **Dannebo-Finnböle** overhead line continues with foundation casting and steel structure assembling.

High voltage devices are being erected in **400 kV AC substation in Finnböle**.

*The Fenno-Skan 2 project is running according to the time schedule.*

### Key milestones 2010

- Start of converter site activities Q2/10
- Valve design ready Q2/10
- Finish subsea cable information type tests Q3/10
- Commissioning of Finnböle AC project Q2/10
- 97 km of subsea cable ready for shipment Q4/10



Construction works in Finnböle 400 kV AC switchgear, November 2009



KG Danielsson, Bo Pääjärvi, Dag Ingemansson and Harri Nurminen in converter meeting, Sundbyberg

Current Contract Information

Vendor	Project	Contract Value	Status
Nexans Norway, AS	Submarine Cable	150 M€	Production
ABB AB	Converter Stations	110 M€	Design/Production
Vattenfall Services Nordic	Dannebo-Finnböle OHL	23 M€	Construction
Siemens	Finnböle AC connection	7 M€	Construction
Infratek	Rauma AC extension	4 M€	Handedover
Empower and subsuppliers	Electrode extension	2 M€	Handedover
Eltel Networks and Nexans Benelux	Rihtniemi-Rauma B 500 kV OHL	5 M€	Handedover

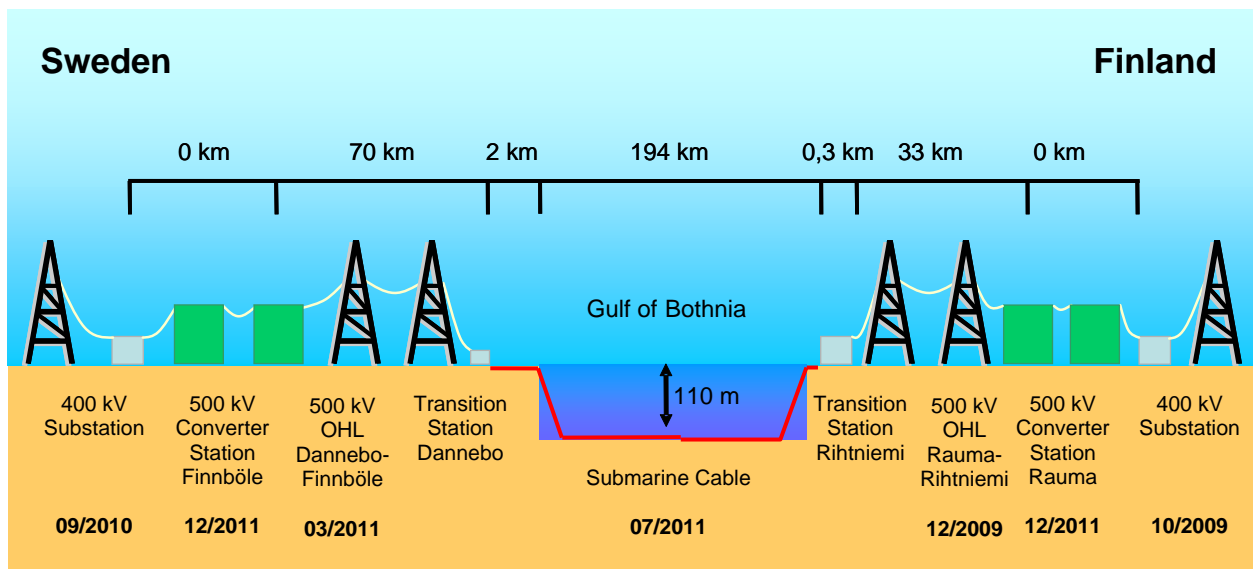
Project Time Schedule

	2005	2006	2007	2008	2009	2010	2011
Permissions Finland							
Permissions Sweden							
Specification							
Tendering							
Design of the vendor							
Construction and manufacturing							
Commissioning							

Fenno-Skan 2

- Capacity at the receiving end AC 800 MW
- Voltage 500 kV (DC)
- Current 1 670 A
- Overhead line in Finland 33 km
- Overhead line in Sweden 70 km
- Submarine cable 200 km
- To be commissioned by the end of 2011

The European Union has awarded TEN grant for the project.



Fenno-Skan 2 HVDC interconnection cross section

More information

<http://www.fingrid.fi/fenno-skan>

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