

# EstLink2

## Newsletter

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GENERATING OPPORTUNITIES



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EstLink 2 – new transmission link between Estonia and Finland will integrate the Baltic electricity market closer to the Nordic market and increase the supply security of electricity in the Baltic Sea region by increasing the total transmission capacity between Estonia and Finland to 1,000 megawatts.

### GENERAL INFORMATION

- Owners: Elering AS and Fingrid Oyj
- Budget: ca 320 M€
  - Owners investments: ca 220 M€
  - EU grant: max 100 M€
- Capacity: 650 MW
- Rated voltage: 450 kV
- Technique: HVDC, Monopolar LCC with an insulated return
- Total length: ~ 170 km
- Submarine cable: ~145 km
- Overhead line in Finland: ~14 km
- Underground cable in Estonia: ~12 km
- Commissioning: in the beginning of 2014



EstLink 2 cornerstone laying ceremony on 16th of November 2011. From the left: Taavi Veskimägi, Juhan Parts, Krista Kiuru and Jukka Ruusunen.

### NEWS CORNER

#### ALL THE STUDIES AND TESTS ARE ALMOST COMPLETED

EstLink 2 system studies are completed, type and routine tests are ongoing both for HVDC converter stations and cables. The factory acceptance cable tests will be completed in summer 2012 and converter station factory acceptance tests by the end of 2012. Equipment installation is scheduled to be started in 2012.



Valve testing in Nürnberg, Germany

#### CIVIL WORK IN ESTONIA AND FINLAND STARTED EARLY 2012

Even if the works in Anttila and Püssi substations were started already in 2011 the main civil work activities related to the cable route preparations, converter station construction works and DC overhead line were started in early 2012 and continuing as scheduled.

#### CORNERSTONE LAID AT PÜSSI IN ESTONIA (NOVEMBER 2011)

In the cornerstone laying ceremony the laying was done by Juhan Parts, Estonian Minister of Economic Affairs and Communications, Krista Kiuru, the Finnish Minister of Housing and Communications, Jukka Ruusunen, President and CEO of Fingrid, and Taavi Veskimägi, CEO of Elering. The event presented the official start of EstLink 2 civil works.

For the cornerstone event an animation video to introduce the project was prepared and also separate website was launched.

Find out more on [estlink2.elering.ee](http://estlink2.elering.ee).

### MAIN ACHIEVEMENTS

- Civil works and cable route preparation are ongoing both in Estonia and Finland
- Overhead line construction works are ongoing in Finland
- Converter station main studies completed and equipment tests are ongoing
- Installations of AC substations are ongoing both in Estonia and Finland

### KEY MILESTONES 2012

- Completion of HVDC cable manufacturing and installation of marine and land cables
- Completion of civil works and start of installations at Püssi and Anttila converter stations by Siemens
- Completion of overhead line construction works in Finland by ETDE
- Completion of AC substations both in Estonia and Finland by Siemens and Empower



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## ESTLINK 2 CABLE INSTALLATION IS SCHEDULED TO TAKE PLACE IN AUTUMN 2012



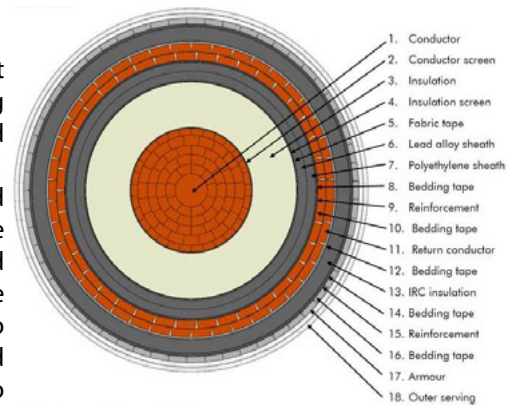
EstLink 2 marine cable installation vessel C/S Nexans Skagerrak in the cable factory in Halden, Norway

EstLink 2 cable installation is planned to be performed from August 2012 to December 2012 by Nexans Norway AS. Before the cable installation starts a pre-lay survey will be performed in summer 2012. Also the preparatory works in near shore areas like horizontal directional drilling to Estonian landfall and possible rock clearance works in near shore areas will be carried out in summer 2012. Marine cable installation will be carried out in two campaigns of approximately 75 km each. The laying of marine cable is scheduled to be started from Estonian

landfall (Aseri) in August 2012. After the completion of the first installation campaign, the trenching operations will be started and completed by the end of September. The installation of the second campaign is dependent on marine cable manufacturing and is scheduled to be started in November 2012. Cable pull-in to Nikuviken, Finland is going to take place in the end of November and all jetting operations are scheduled to be completed by the end of December 2012.

### SOME FACTS

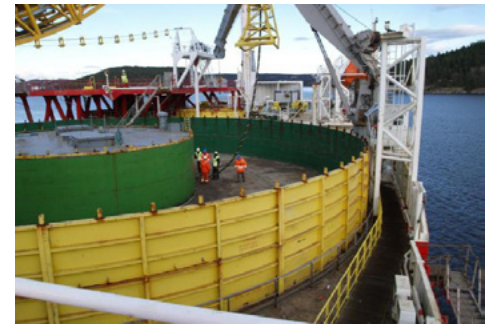
- Weight of the marine cable is approx 76 kg/m
- EstLink 2 marine cable pole conductor and metallic return conductor are integrated in the same cable
- One offshore cable joint
- Cable installation vessel is C/S Nexans Skagerrak with the carrying capacity of 7000 tonnes
- The weight of one campaign is around 5,800 tonnes
- Cable burial method is water jetting both in offshore and nearshore areas



EstLink 2 marine cable cross-section drawing



Typical floating operations



Turntable of the installation vessel



EstLink 2 marine cable route

EstLink 2 cable crosses with several power cables, telecommunication cables and gas pipelines in the gulf of Finland. Prior to the construction of crossings the crossing agreements with crossed cable owners will be signed.

### MORE INFORMATION

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Mr. Mega Watt from EstLink 2 animation