

The Norwegian chapter of IEEE Power & Energy and NAEE invites to the webinar

Northconnect – Technical and socioeconomic aspects
Thursday 7th of May 2020, 12:00-15:00
Webinar on Blackboard Collaborate

Chairman

Erick F. Alves, NTNU, IEEE Power & Energy, Norge

12:00 Welcome

Erick F. Alves / Jørgen Bjørndalen

12:05 Northconnect, technical aspects including special design issues

John Gleadow, Northconnect

The technical aspects of Northconnect's 1400 MW HVDC system will be presented together with some special design issues: minimization of converter and substation footprint on the Scottish side; dynamic overload capability and possible multi terminal options including an evaluation of a North Sea HVDC hub for electrification of oil and gas installations.

12:45 NorthConnect – NVE's overall assessment

Ellen Skaansar, NVE

NVE was commissioned by the Ministry of Petroleum and Energy to give an overall assessment of NorthConnect. This presentation will give an overview of NVE's report on the topic with emphasis on market effects.

13:25 Break

13:35 HVDC connections – challenges for system operation

Tom Tellefsen, Statnett

Today the Norwegian power system has 1700 MW of HVDC link capacity to Denmark and the Netherlands. 2800 MW HVDC capacity to Germany and England are under construction, resulting in a total HVDC capacity of ± 4500 MW. What are the operational challenges and how to handle them?

14:15 Integration via interconnectors: Climate effects

Torjus Bolkesjø, NMBU

General benefits related to integration of electricity markets and technologies; financial and climate impacts. In his presentation, he will provide a dynamic perspective.

14:55 Wrap-up

Background

The existing HVDC capacity from the Norwegian system is 1 700 MW, and it will increase to 4 500 MW when the projects NordLink (1 400 MW link to Germany) and North Sea Link (1400MW link to England) are commissioned by Statnett in 2020 / 2021. Also, NorthConnect, a joint venture between Lyse, Agder Energi, Hafslund E-Co and Vattenfall, has applied for licenses to construct and operate a 1 400 MW HVDC connection between Sima in Hardanger, Norway and Peterhead in Aberdeenshire, Scotland.

Within Norway, there has been a lot of discussions about the latter. On the economical side, a 2019 analysis by NVE indicates that NorthConnect would be economically viable but may increase energy prices and grid tariffs. On the technical side, another 4200MW of HVDC capacity would require up to 8400MW of additional regulating power in a worst-case scenario. How this impacts the electrical power system security? On the environmental side, what is the impact on renewable power development? Not least, non-TSO ownership is also a part of the discussion.

This webinar will shed light over these topics and give you updated information directly from the source.

Information

The seminar is free of charge for IEEE members and NAEE members. For non-members the fee is NOK 300,-. Contact person for the seminar is Erick Alves, erick.f.alves@ieee.org, cell. 932 61 518.

Registration and payment

Please visit the website "Deltager.no" through the link <https://www.deltager.no/PESNorthConnect20>
Registration deadline: 4th of May at 23:00.

IEEE is the leading professional association for the advancement of technology. With more than 400 000 members in more than 160 countries, IEEE is the world's largest technical professional society. The IEEE Power & Energy Society (PES) has the ambition to promote and share scientific knowledge about electrical power and energy. The Norwegian PES chapter substantiates this ambition by arranging technical seminars.

The IEEE membership yearly fee is 171 USD + 35 USD for PES. New members are awarded 50 % discount in the first year. Students have reduced fees. Please visit the [IEEE PES website](#) for more information.

Any questions? Please don't hesitate to contact the chairman Erick F. Alves, erick.f.alves@ieee.org

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Any questions can be directed to the chairman Jørgen Bjørndalen jorgen.bjorndalen@dnvgl.com