

Sub-sea electricity cable from Scotland to Norway planned

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(PhysOrg.com) -- A study into a proposed North Sea interconnector will examine the possibility of a sub-sea electricity cable linking Scotland and Norway, according to an announcement earlier this week in Aberdeen by Scotland's First Minister, Mr Alex Salmond.

Mr Salmond said an integrated grid would contribute to the European sustainable energy policy, and that connections from Scotland to Norway and mainland Europe were essential.

Mr Salmond announced the signing of the agreement between a subsidiary of Scottish and Southern Energy, SSE Interconnector, and three Scandinavian utilities to study the feasibility of building an interconnector to carry power between Scandinavia and the UK. He said the north-east of Scotland was the ideal location and this makes Scotland "ideally placed" to become the green powerhouse of Europe.

The Scandinavian partners to the agreement are Swedish utility company Vattenfall and Norwegian utilities Lyse, E-CO Energi, and Agder Energi. The jointly owned development company will be known as NorthConnect. Independent, not-for-profit group The Scottish European Green Energy Centre has contributed 50,000 Euros towards the search for the best route for the cable.

Scotland and Norway both have diverse and complementary ways of producing electricity, and an interconnector would allow them to share the resources and maximize supplies of low-carbon sources of electricity. Norway has flexible hydro-electricity sources, while Scotland has wind power sources, and so Scotland could import electricity on still days and export its excess on windy days.

The high voltage, direct current (HVDC) cable between Scotland and Norway would be capable of carrying 1,200 to 2,000 megawatts (MW) of electricity, and could be in place by 2020. Initial

estimates are that it would need to be between 550 and 700 km long. NorthConnect will spend the next few years analyzing the economic and technical viability of the project.

Head of Vattenfall's Asset Optimization and Trading department, Harald von Heyden, said NorthConnect would increase competition in regional areas and provide a more secure supply of [energy](#) with more stable [electricity](#) prices.

The UK is already connected to Ireland and France, and a sub-sea cable carrying 1,000 MW between the UK and the Netherlands will open in April this year. [Norway](#) has cables to Sweden, Denmark and the Netherlands, and a cable to Germany is under construction.

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