

# Questions and Answers

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*This document contains the answers to the most commonly asked question about the PROMOTioN (Progress on Meshed HVDC Offshore Transmission Networks) project.*

## What is the background for the establishment of PROMOTioN?

To unlock the full potential of Europe's offshore resources, a coordinated approach to network infrastructure is urgently needed, in order to link offshore wind parks and onshore grids in coastal countries. For this purpose PROMOTioN will develop and demonstrate key technologies, a regulatory and financial framework and an offshore grid deployment plan for 2020 and beyond.

## What is the political context of the project?

The littoral states of the North Seas have signed a political declaration on energy cooperation, with the aim to create good conditions for offshore wind energy in order to ensure sustainable, secure and affordable energy supply in the region, facilitate and increase energy links and reinforce regional energy cooperation. The declaration focuses on maritime spatial planning, the development of a common infrastructural offshore regulatory framework, supportive financial frameworks and a coordinated approach for offshore standards and technical rules.

Background: The North Seas Countries' Offshore Grid Initiative (NSCOGI) was formed as the responsible body to evaluate and facilitate coordinated development of a possible offshore grid that maximises the efficiency and economic use of those renewable sources and infrastructure investments. Its Memorandum of Understanding which was signed in 2010 contributed in paving the way for the PROMOTioN project.

## What are the challenges facing the deployment of a common meshed offshore HVDC grid?

The main challenges the PROMOTioN project addresses are of technological, financial and regulatory nature. Technologically, there is the need for further research and development into more cost-effective and reliable converter technologies as well as effective grid protection systems. From a financial point of view, the lack of a coherent financing regime for offshore infrastructure development represents a major challenge. Lastly, the absence of a coordinated deployment plan and a regulatory framework, as well as missing agreements between manufacturers, developers and operators of the grid also represent current obstacles to the deployment of a meshed HVDC offshore grid, which the PROMOTioN project pursues to surmount.

## What are the main objectives of PROMOTioN?

PROMOTioN serves as the link between technology research, validation (testing) and the development of recommendations for meshed offshore grids.

Develop interoperable & reliable network protection

- Work towards technology interoperability & standardisation
- Recommendations for EU regulatory & financial framework
- Deployment plan & Roadmap for implementation up to 2050
- Full scale technology demonstrations of:
  - HVDC control & protection systems
  - Converter harmonic model validation
  - HVDC gas insulated switchgear
  - HVDC circuit breakers

## How is the project organised and managed, and which are its core components?

The project consortium which is coordinated by DNV GL includes 33 partners from 11 countries – all major HVDC manufacturers, TSOs linked to the North Sea, several wind turbine suppliers, offshore wind developers, leading academics, and consulting companies. A series of stakeholder workshops and events will be organised during the project phase to discuss the various technological and regulatory approaches.

The organisational structure of PROMOTioN is based on 16 work packages (WP), each looking into different aspects of the challenges mentioned earlier. They are closely interlinked and build upon each other.

## What is the timeframe of PROMOTioN?



PROMOTioN – Progress  
on Meshed HVDC Offshore  
Transmission Networks

This project has received funding from the European  
Union's Horizon 2020 research and innovation  
programme under grant agreement No 691714.

The project runs from January 2016 until December 2019.

## How is the project funded?

PROMOTioN applied for funding under the framework EU Horizon 2020 programme call 'Competitive Low-Carbon Energy' 5 (LCE 5). Currently it is the biggest energy project in the EU's Horizon 2020 Research Program. The total estimated cost is at roughly €51 million of which about €39 million come from EU contributions.

For more information do not hesitate to contact us at [info@promotion-offshore.net](mailto:info@promotion-offshore.net)



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