TKI Upstream Gas Innovation Cluster 2016 for Offshore Energy

Publieke samenvatting / Public summary

Summary

Transitioning from traditional energy sources to stable, sustainable and cost-efficient energy sources is one of the challenges facing the Netherlands and other countries. Rather than decommissioning Dutch oil and gas offshore infrastructure, Shell, TNO and Siemens believe there is a better solution in the form of using existing oil and gas infrastructure in the North Sea for sustainable energy sources. KPMG therefore organised the North Sea Energy Challenge www.northsea-energy-challenge.com in 2016, around the reuse of existing oil and gas fuel infrastructure for renewable energy generation. This led to the formation of the ongoing North Sea Energy programme, which launched in 2017.

Background

Declining production in the Dutch offshore oil and gas sector means the focus in the North Sea is increasingly on dismantling platforms and cleaning up pipeline, subsea system and other associated infrastructure. At the same time, new infrastructure is being built for the generation of wind energy. An initial analysis of the challenges facing the oil and gas and offshore wind sectors shows that connecting them could create many opportunities for synergy and cost benefits. These connections could be physical in the form of constructing electrical connections between wind farms and offshore platforms and in the form of cooperation on maintenance, inspection, logistics, etc.

Projectinformatie / Project information

Projectnummer / Project number
TKITOET2016-02-UG
Subsidiebedrag / Grant amount
€ 25.000,00

Algemene informatie / General information

Penvoerder / Secretariat
TNO

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Project objective

The aim of the challenge was to map opportunities and obstacles, using an app and social media to generate ideas that would strengthen system integration in offshore energy. The challenge ran from 1 September to 30 October 2016. The question considered in the North Sea Energy Challenge was:

“How can we create synergy between the existing oil and gas infrastructure in the North Sea and tomorrow’s renewable energy sources to accelerate new energy systems?”

Project results

360 people from over 80 organisations joined the platform and 48 of them actively contributed to the challenge, posting 44 ideas. These ideas were further developed with some 131 additional inputs. The Challenge Team selected their top five most promising ideas, based on an online individual evaluation and a selection workshop. The five ideas selected were: Hydrogen Power Conversion, Power Kites and Tidal Energy Production, Algae and Methanisation Energy Production, Using Pipelines to Transport CO2 and Using Platforms as Central Energy Points.

The challenge further provided the basis for the subsequent ongoing 16-party strong North Sea Energy innovation programme, which launched on 15 May 2017. In parallel, an innovation network has been built to foster cooperation to exploit innovation opportunities: https://www.north-sea-energy.eu/.

The North Sea Energy programme comprises four work packages that look at specific research questions: “strategic spatial planning”, including balancing conflicting interests and identifying opportunities for smart links with existing infrastructure; “society and governance”; “physical network”, including realizing an integrated energy network in the Dutch North Sea; and “health, safety and environment”.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.
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