

1. Project description

This project shall ensure that the existing natural gas pipeline infrastructure in Denmark is converted to transport of a mixture of hydrogen and natural gas. This project shall open the marked for transport of hydrogen by pipeline in Denmark and since in its neighboring countries. This marked does not exist today, as no specification exists on allowing hydrogen in the pipeline system and the consequences for the end users are not well established by allowing a mixture of natural gas and hydrogen in the existing pipelines. Likewise, the production of green hydrogen is uncompetitive and as of today there is no capability available to produce the 100 MW of green hydrogen needed to test the capabilities of the existing gas infrastructure to carry a mix of natural gas and hydrogen. This project shall construct a 100 MW electrolysis plant, connect it to the existing gas infrastructure to test the limits of the gas pipeline infrastructure.

Strandmøllen is an industrial gas producer with more than hundred years in the marked of producing and selling industrial gases. The company extensive experience with hydrogen and has been an operator of an electrolysis plant in operation since 1964. The company has experience in construction hydrogen systems and operating electrolysis and fillings plants for hydrogen. The company is a Seveso III company with a valid license and safety management system in place for the large scale production of hydrogen.

Please select which part of the value chain for hydrogen your project focuses on (select one or more, where applicable):

| | | | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Production | Transmission | Industrial application | Mobility | Energy | Housing application | Other |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

2. Partnerships and spillover effects

This project has identified the need of the following partners and spillover effects:

Electrolysis producer: The project is in need of an electrolysis producer, which can show the ability to produce electrolysis systems/cells on a large scale with minimum requirement of operating expenditures and maintenance requirement. The value chain part would be production of equipment for electrolysis plants.

Gas pipeline infrastructure stakeholder: The project is in need of an gas pipeline infrastructure stakeholder to ensure that the product can be fed directly to pipeline. The value chain part would be transmission.