Compact Ambient Sour gas Processing (CASPer)

Publieke samenvatting / Public summary

Aanleiding

Background The majority of natural gas fields in the world require some form of acid gas processing before the natural gas can be released to pipeline infrastructure. This necessary extra processing represents a significant energy cost which will be reduced by the CASPer technology by 30%.

Doelstelling

Project Objective Process design and experimental validation of bulk and deep removal of H2S from natural gas using supported amine sorbents in a pressurised fluidised bed. The two main drivers are overall reduction in adsorber equipment size (80%) and overall decrease in energy consumption (30%).

Korte omschrijving

Short Description of Activities The activities within the project are all aimed at de-risking the technology at the appropriate step on the Technical Readiness Level scale, to provide: • deep removal of H2S of natural gas streams (<3.5 ppm H2S in outlet) • stable operation of immobilised amine sorbent under suitable regeneration conditions (>1000 cycles, >1 bar partial pressure steam) • pressurised fluidised bed operation shown to be achievable (minimum 10 bar) • critical components and design constraints for technology identified The activities will drive implementation of CASPer in both existing gas fields, and gas fields that cannot currently be exploited because of size, location and/or level of contaminants.

Resultaat

Results This project will deliver a lab-scale proof-of-

Projectinformatie / Project information

Projectnummer / Project number
TEEI115008
Subsidiebedrag / Grant amount
€ 585.745,00

Algemene informatie / General information

Penvoerder / Secretariat
Stichting TKI-ISPT

Publicaties en materialen / Publications and attachments

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  Eindrapport TEEI115008

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principle of deep removal of H2S from (high pressure) natural gas using CASPer technology, aiming to lower energy and investment costs for deep removal of H2S. This project will de-risk the technology for pilot-scale implementation.

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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