

Time saving & Risk mitigation Enhanced Casing Installation Technology

Publieke samenvatting / Public summary

Aanleiding

Despite the huge potential the exploitation of geothermal energy is still very limited in the Netherlands. This is mainly due to the high costs and severe risks of deep drilling operations, which also make the funding of these projects more difficult. Since 2008 WEP, HWT and Akiet have been working on the development of an innovative drilling technology, which is based on a clever, simplified version of casing while drilling (CWD) and high-end, lightweight composite casing. The technology was named Enhanced Composite Casing Installation (ECCI), and is characterized by risk-mitigation, short cycle time, high quality and cost efficiency.

Doelstelling

The main objective of the project is to enable a wider use of geothermal energy in the Netherlands through risk mitigation and cost reduction. After the demonstration and deployment of the full ECCI technology, deep geothermal energy will be commercially viable and within reach of many potential customers like greenhouses and district heating companies. The need for SDE+ subsidy will diminish. The ECI technology (including casing while drilling) will already bring many of the advantages of the full ECCI technology to the geothermal industry.

Korte omschrijving

HWT is responsible for the drilling technology, which can be applied with both steel (ECI) and composite

Projectinformatie / Project information

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Algemene informatie / General information

Penvoerder / Secretariat
Huisman Well Technology BV

Publicaties en materialen / Publications and attachments

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casing (ECCI) and will lead directly to risk mitigation and cost reduction. Akiet has developed a High Strength Composite Casing (HSCC) system, with fast and on-site connections. Due to an innovative rotational casting production process, the quality of glass fibre reinforced epoxy (GRE) tubulars is unprecedented. Consultation with the Dutch competent authorities has led to the conclusion that in view of the geological and technological risks it is undesirable to stack innovations in deep drilling operations. The high cost, significant risks, strict safety regulations and the demand for guarantees by the operators make it very hard, if not impossible, to find and execute a demonstration project.

Resultaat

Based on the precautionary principle, the new technology can only be demonstrated in a number of successive steps. The TRECIT project will be the first step, the installation of an approximately 2.5 km deep geothermal doublet, of which the reservoir sections will be installed with the Enhanced Casing Installation technology.

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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