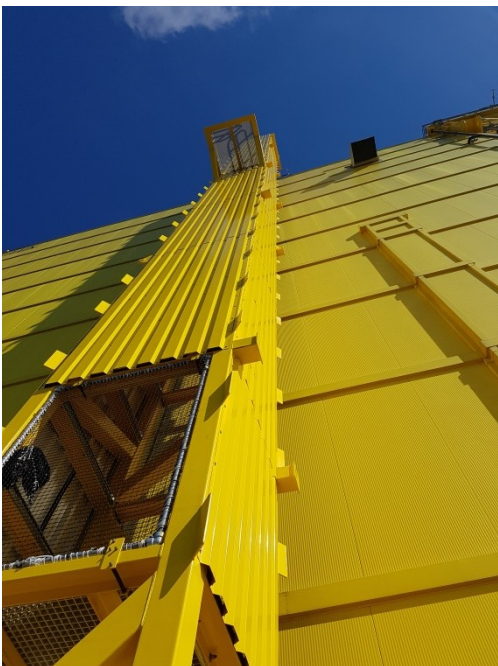


CABLE RISER INSTALLATION

IV-Oil & Gas awarded Conbit a contract for the lifting and installation of a cable riser protection frame on Tennet's Dolwin Alpha substation, located offshore in the German sector of the North Sea.

The protection frame is a 1.8 x 1.3 m steel column, over 36 meters in height and with a total weight of approximately 14.5 tonnes. The lifting procedure involved the use of a ballasted winch, a hinged upending procedure and the remote release of slings.



Picture: Cable riser frame in final position

PROJECT

- ✕ ENGINEERING
- ✕ PROCUREMENT
- ✓ INSTALLATION

Client

IV-Oil & Gas B.V.

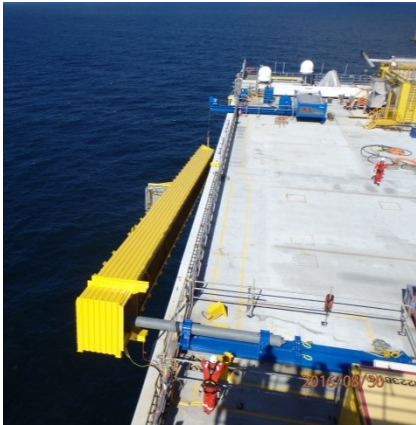
Year

2016

Project Name

Dolwin Alpha cable riser protection frame

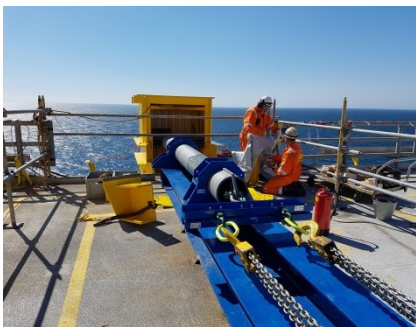




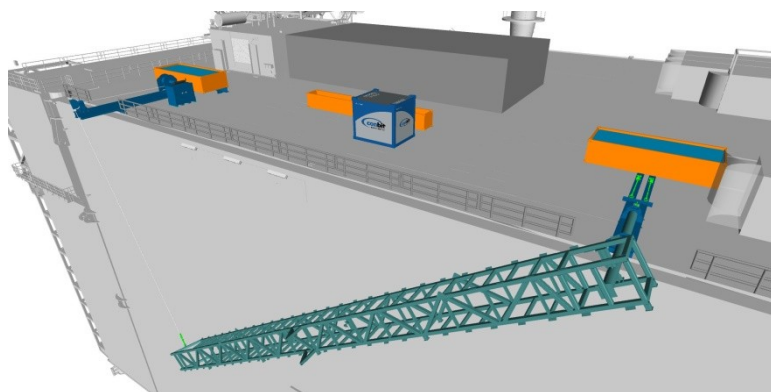
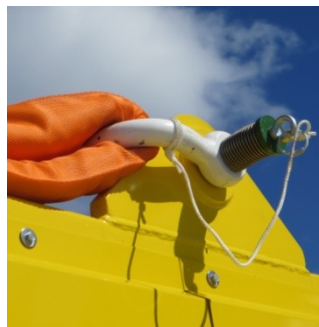
Picture: Upending procedure



Picture: Winch frame



Picture: Hinge frame and Remote release shackle.



Picture: 3d project approach

IV contracted Conbit because of our specialist lifting know-how, engineering capability and thorough work preparations. By involving Conbit at an early stage in the riser design process, a special installation method could be incorporated. The project was surveyed, certified and monitored by DNV.

UPENDING

The main challenge was upending the riser. As the platform's crane was inadequate to perform this task, we made use of the substation's height to upend the riser. By first sliding it out of the platform and supporting it at one end with a hinge point and then lowering it at the other end with a winch, it was slowly brought into the vertical position.

LIMITED WELDING

Our client wanted to keep welding of temporary structures to a minimum. The Conbit engineers devised a novel solution. This enabled us to limit the welding to only a few shear plates.

OVERBOARD WORKING

Overboard working normally requires additional measures to maintain safety, including a standby rescue vessel. Therefore, the client decided to prevent overboard working. As we were lifting overboard, we needed to remotely release our lifting slings. We used a remote release shackle to overcome this challenge.

AIRTIGHT WALL

Because the substation's outer wall is airtight, caution was necessary to ensure that the riser did not impact and damage it. Therefore, during the installation we decided to execute the upending procedure with extra clearance between the riser and the outer wall.

*"A WELL-PREPARED
PROJECT RUNS MORE
SMOOTHLY"*