CASE STUDY

CCS Network (ME) Ltd

Dungeness — metalwork trial

SITE	DATE OF APPLICATI	POLLUTION TYPE
Dungen 400 kV substati	15 Septem 2020	Water and saline air on painted metalwork

EQUIPMENT
A section of roller shutter and a section of gutter

The challenge

Salt air at Dungeness does not stop at the insulators. On a section of roller shutter on the north side, and a section of gutter on the south side facing the sea, the anti-corrosion paint was estimated at more than 10 years old. Ultraviolet light had weakened it and it had cracked, so moisture had reached the steel.

The solution

Loose rust and paint were scraped and wire-brushed, and the surfaces were wiped with solvent. An RTV silicone anti-corrosion coating was applied by air-assisted spray to a section of the shutter and a section of the gutter.

The result

The trial application was completed. CCS planned to inspect the test areas after one year.



Before



After

Long-term performance

SURVEY DATE	CUSTOMER	POLLUTION TYPE
28 September 2021	National Grid	Saline

EQUIPMENT
400 kV insulators, including SGT1

On 28 September 2021 CCS surveyed the 400 kV insulators. Dungeness is an exposed coastal substation, and salt on the porcelain is a flashover risk. The insulators carry RTV silicone HVIC. On SGT1 the same day, hydrophobicity was typically HC1 to HC2, and it held better on the south and east faces than on the north and west. CCS recommended an overcoat with RTV silicone HVIC. The photograph shows those in-service coated posts.



In service

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