CASE STUDY

CCS Network (ME) Ltd

Hinkley Point 275 kV — SGT6 hybrid application

SITE	CUSTOMER	DATE OF APPLICATION
Hinkley Point 275 kV substation SGT6	National Grid	July 2013

EQUIPMENT
SGT6 insulators, hybrid application

The challenge

Conventional spray puts RTV silicone HVIC on the porcelain and also into the air. On a substation that overspray is wasted material, and it lands on steelwork the customer then has to live with. The SGT6 trial asked whether the same coating could be applied without atomising it.

The solution

Electric pumps and a spray gun were used, with a tip chosen to deliver the coating onto the surface without breaking it into a mist. Each coat had to cure before the next, so the tool did not lift the wet film, and the work was slower than conventional spray. Undersides needed several passes. The tops of the sheds covered more readily. About 20% less material was used than with spray, because the overspray was eliminated.

The result

Hydrophobicity and adhesion were very good, and the required thickness was achieved. Surface finish was acceptable. The insulators carry a smooth light-grey film, applied with less product and without a cloud of overspray.



Finished coating



Finished coating

Long-term performance

SURVEY DATE	CUSTOMER	POLLUTION TYPE
18 September 2021	**National Grid**	**Saline**

The 275 kV coating schedule lists SGT 6 in July 2013, which is the date used above. On 18 September 2021 CCS surveyed that substation. Several circuits coated with RTV silicone HVIC had already had reliable maintenance-free protection, and some were coming due for an overcoat after 10 years in service. The site still uses water wash and hydrocarbon grease alongside the coating.

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