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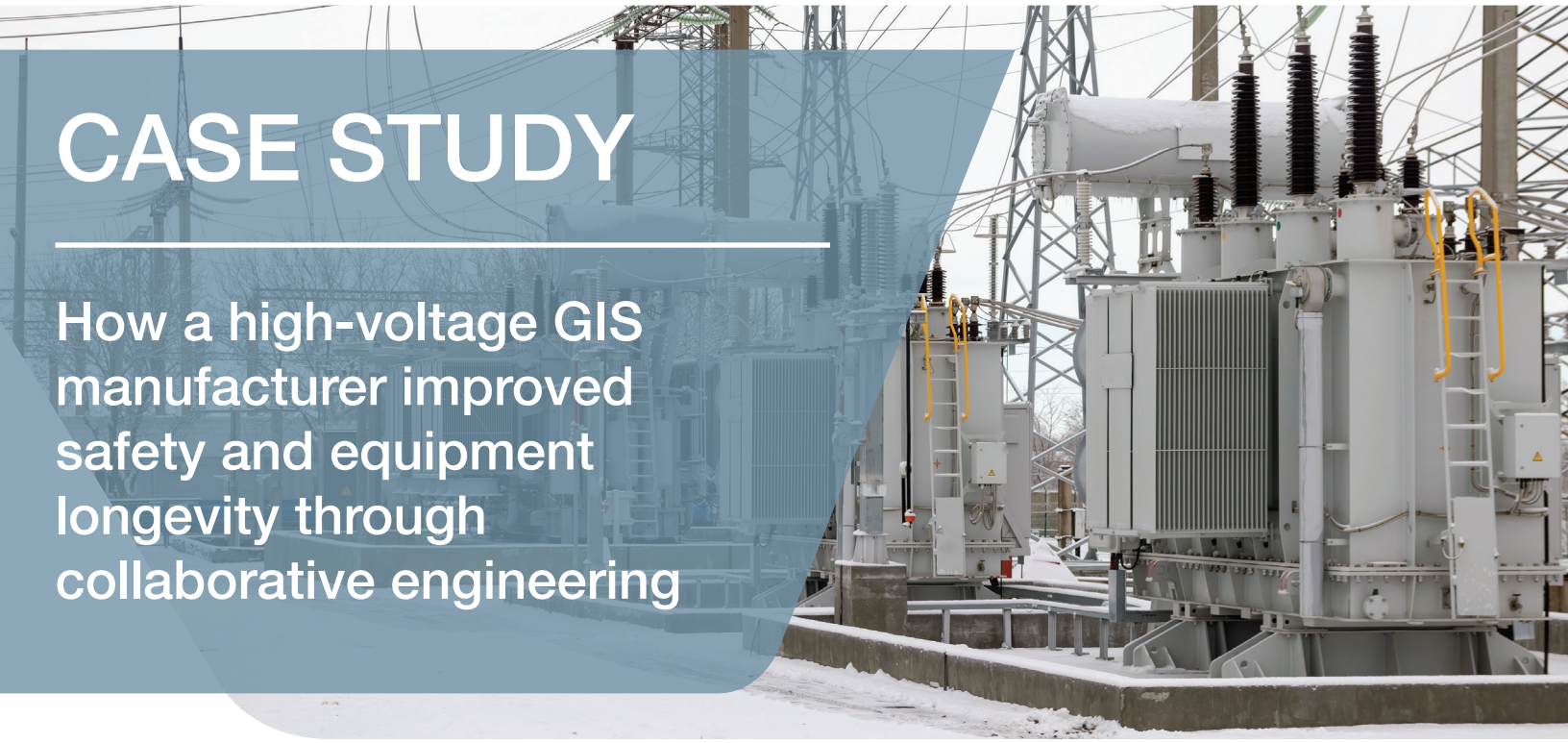
CASE STUDY

How a high-voltage GIS manufacturer improved safety and equipment longevity through collaborative engineering



SITUATION

A global manufacturer of high-voltage switchgear was looking for a way to stop the rupture discs on their units bursting prematurely. They wanted the discs to be ready when needed and only burst in a real emergency. They were hampered by not being able to identify the root cause of the problem and therefore specify a disc that would burst as required every time.

ACTION

By pooling knowledge with our Design Engineers, the manufacturer realized that the mating surface on the switchgear was not lining up 100% with the rupture disc support ring. The resulting strain on the disc was causing the premature failures. To solve this:

- The manufacturer revised their housing design process to ensure the mating surface design matched the rupture disc's interface requirements perfectly;
- Our Design Engineers modified the rupture disc's support ring design to offer more robust support;
- Together, we developed a comprehensive test program that included burst tests with the discs installed on the new housings.

RESULT

The new designs and test program confirmed the compatibility and robustness of the housing and disc interface. Since using the new designs, the manufacturer has been successfully making safe switchgear units, free from premature burst failures in outdoor conditions, for over a decade.

Collaborative working enabled a successful re-design of both the rupture disc and the switchgear housing

Contact us today for a no-obligation discussion on how you can optimize design and improve pressure safety across your switchgear units.

Our Design Engineers will work directly with your team, using their technical expertise and knowledge of industry codes to design a custom rupture disk solution that will meet your individual requirements and integrate perfectly with your equipment.