CASE STUDY

[MIDEL®]
SAFETY INSIDE

ESTER TYPE: MIDEL 7131 synthetic ester

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CESC Ltd is a power utility in the Kolkata region of India. More than 122 years old, it handles the entire span of electricity business in the region including generation, transmission and distribution. It serves more than 3 million consumers including domestic, industrial and commercial users.

CESC operates on a wide range of assets in power generation and distribution. There are more than 8,000 distribution transformers in the system, the majority of which are rated between 315 and 500 KVA. CESC has been installing Dry Type transformers in densely populated areas since 1990. Today, around 25% of those assets owned by CESC are Dry Type Transformers.

Sustainability is an important part of CESC's philosophy. According to its ESG report "Electricity plays a pivotal role in our society and it supports economic growth and humanr development. The long-term value of which is dependent on our sustainable vision towardr

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[SITUATION]

As an alternative to fire prone mineral oil transformers and costly dry type transformers, CESC explored the use of fire safe and environment-friendly ester fluid filled transformers as a solution. In discussing the transformers placement and operating temperatures with the MIDEL technical team, the benefits of using MIDEL 7131 in place of mineral oil became clear. CESC made the decision to retrofill two of its on-site transformers with MIDEL 7131.

The transformers for this project were positioned in a plastic factory and a manufacturing workshop requiring additional precautions for fire safety and environmental protection for such densly populated areas. The ability to operate under high temperatures was also a key factor in the decision making process due to the challenge of transformer operation in factory conditions within a hot climate.

[RESULT]

After rigorous testing by CESC, the two transformers were installed for full operation. They now contribute to the reliable service that CESC is committed to providing its customers in Kolkata.

The MIDEL team worked very closely with CESC officials to demonstrate how MIDEL 7131 could provide enhanced levels of fire safety and environmental protection for transformers. Moreover, the proposal made financial sense because the transformers will now have a longer operational life and will perform at a higher level than before.

The use of MIDEL ester fluids in this project supports the following UN Sustainable Development Goals:

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