AURORA ENERGY SERVICES

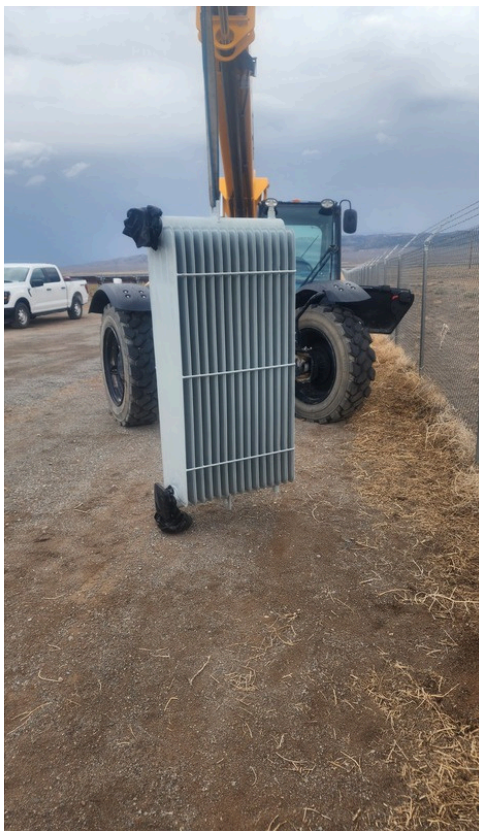
Electrical Services

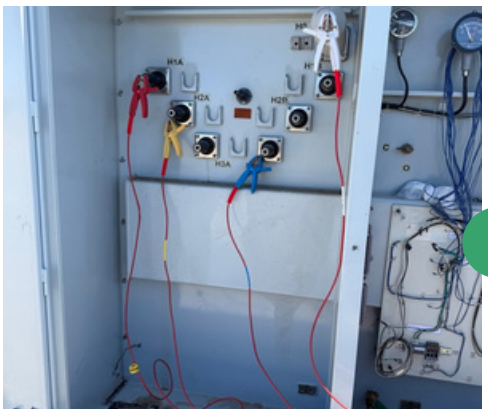
Radiator Weld-Leak Repair on a Utility-Scale Solar Site Transformer

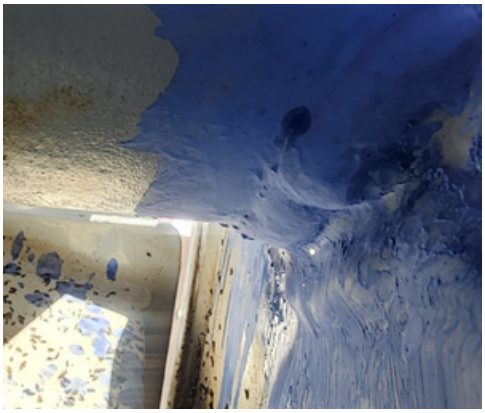
To diagnose the condition of critical transformer assets and safely repair a radiator weld leak using an efficient outage strategy that minimised downtime, protected equipment integrity, and reduced operational disruption.

Our Solution

- Performed comprehensive transformer diagnostic testing, including insulation resistance and turns-ratio analysis, to assess asset condition and identify electrical abnormalities.
- Confirmed the radiator weld leak using non-intrusive inspection techniques before developing a safe repair strategy for the affected transformer.
- Executed a planned radiator replacement during a scheduled outage, using a temporary radiator swap, specialist welding, and pressure testing, to minimise outage duration and safely return the transformer to service.







At a Glance

Challenges

- The transformer remained in service when the weld leak was first identified, requiring careful planning before isolation.
- The repair required precise coordination between electrical, mechanical, and specialist welding teams.
- Outage duration had to be minimised to reduce production losses for the renewable energy facility.
- Overnight working was scheduled to align repairs with the site's lowest generation period.

Value to client

Aurora's rapid mobilisation and innovative repair strategy enabled the transformer to be repaired with minimal operational impact. By diagnosing the developing fault before a catastrophic failure occurred and implementing a radiator swap solution during the planned outage, the team significantly reduced equipment downtime and production losses. The coordinated repair approach ensured the transformer was safely recommissioned following successful pressure testing and verification, demonstrating Aurora's capability to deliver complex electrical infrastructure repairs efficiently, safely, and with minimal disruption to critical operations.

Contact Us

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