



# SUCCESS STORY

## Alfanar Technical Services successfully commissions the largest transformer in the region.

Client: Saudi Electricity Company

### Scope:

**Transport, testing, and commissioning of 960 MVA Power Transformer**

Alfanar Technical Services (ATS) continues to be a trusted partner when it comes to handling complex maintenance projects. As the only Saudi company in the region capable of reengineering the largest rotary and static equipment such as transformers, motors, and generators, ATS performance is recognized and well appreciated by clients in the Utilities for high-capacity maintenance as well as for crisis management and emergency services.

The Saudi Electricity Company (SEC)'s large 904 MVA Generator TR recently went through an unplanned breakdown at their Jeddah Power Plant and led to a power grid crisis that affected power supply to the region. Following an initial survey, ATS determined that a major repair would be required to fix the Transformer over the span of several months. A spare 960 MVA Power Transformer was available at the SEC's Shuqaiq Power Plant, but to install it required various modifications. Alfanar Technical Services took up the challenge and immediately conducted a specialized compatibility study that covered the power system, relay co-ordination, and bushing replacement and utilized advanced and internationally standardized methods.



### The Journey

The largest challenge, however, was to transport the transformer from Shuqaiq to Jeddah, a distance that had to be covered both by land and sea. The team decided to shift the transformer to the Jizan Port after conducting a survey of the road and safety, municipality, port, and naval base; selecting a logistic partner; and formulating a dynamic and efficient plan. It is worth mentioning that the considering the mass weight and size of the transformer (470 tons), special roads, bypasses and bridges had to be laid.

As a full dismantling of the faulty 904MVA transformer took place, the 960MVA transformer was commissioned and charged successfully after passing all mandatory tests and checks. The transformer was then instantly placed on full load in accordance with SEC's 5 Star Safety Management System and the latest ISO requirements.

As a highly strategic project on both a local and regional scale, we maintained vigilant supervision of all project stages and enabled the SEC to witness the successful completion of each stage," said Eng. Amer Al Ajmi, Vice President-Sales & Marketing, Alfanar Construction. "We are proud to have fulfilled SEC's expectations by meeting all requirements in the shortest delivery time while maintaining the highest quality and safety standards.



The project marked a major milestone for Alfanar Technical Services, as it was one of the largest transformers in region and one of the most challenging success in this field to date.