

Major outages on two of Pakistan's largest steam turbines

GOALS

- Improved efficiency
- Increased output
- Reduce operating costs

Bringing global expertise, flexibility and a local approach to steam turbine and generator maintenance services

 Power generation  Steam turbine & generator  Punjab, Pakistan

THE OPPORTUNITY

There's no place like home. That's what EthosEnergy's regional Sales Account Manager thought when we made our first visit to a thermal energy power plant in his native city of Mehmood Kot, in the Punjab region of Pakistan. The plant is home to two of the largest steam turbines in Pakistan. These twin-sister 365 MW units are owned and operated by Lalpir Power Limited and Pakgen Power Limited, which is part of the Nishat Group, one of the leading and most diverse business groups within the Middle East and Africa region. Since that first business trip in April 2018, we have enjoyed a close relationship with Lalpir and Pakgen. We received our first Request For Quote the same year and in September 2019 we performed a major outage of the Pakgen unit. That went well. And when the next major outage came around in 2023, this time for the Lalpir unit, the plant turned to us once again.



KEY FACTS

on site service

Onsite replacement and machining of all steam turbine seal strips

as-new condition

Vibration issue resolved to as-new condition

1-2 weeks

Outage reduced by 1-2 weeks

THE ETHOSENERGY PERFORMANCE

Local knowledge, global experience. There are different OEMs for the plant's steam turbines and generators. But in EthosEnergy, not only has the client found an international power plant maintenance company that speaks its language. It has found one with experience of working across multiple product lines and with equipment from multiple OEMs. Whatever the scope of work, whatever the issue, we can cover it. We disassembled the equipment, pulled out all the rotors, sandblasted various components, undertook extensive fact-finding investigations, and carried out all necessary repairs before reassembling everything. Our site and field services team – which stretched to 82 people on peak days – replaced 100% of the steam turbine's seal strips. There was one known issue before the outage: High vibration on bearing #5. It was in zone B, worryingly close to zone C. We found some potential causes and fixed the problem. On start-up, vibration was back within zone A, just as if the equipment were brand new.

THE IMPACT

Listening to requirements and accommodating changing needs with our flexible approach.

The outage lasted between 1st February and 28th March. By performing much of the work on site, we helped the client avoid the costs and inconvenience of an extra 1–2 weeks of outage, as well as make savings on delivery.

We also helped improve efficiency, lower running costs, and increase the unit's output.

We now hope to build on this platform of two successful outages and have already had fruitful discussions about the next one, this time for Pakgen.

We showed we not only understood our client's exact requirements, but we could adapt to its changing needs – at times, within the space of a single day.

