Triveni TURBINES

Industry Case Study

Geothermal Power Plant

Case Studies:

Enhancing 16MW Geothermal Turbine Performance Client Overview

Old Rotor Design

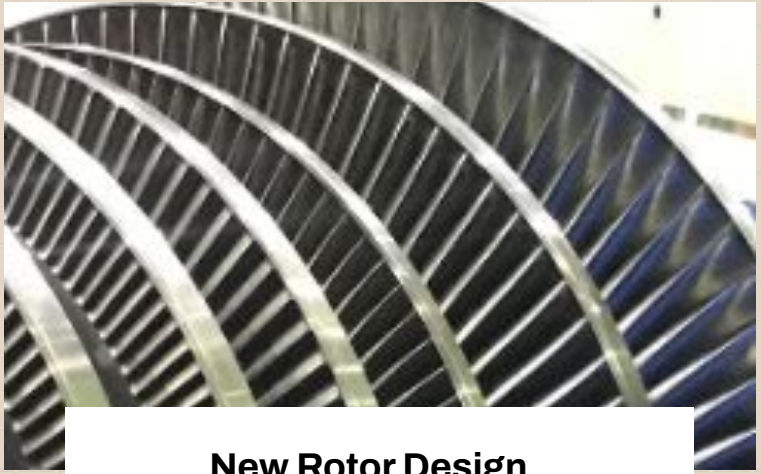
Our client, a prominent player in the geothermal energy sector who was running a turbine of America's origin, was confronted with persistent challenges related to erosion and corrosion, and depleting the life of rotor material significantly hampering the performance of their 16MW geothermal turbine.

Client Challenges
The client faced a triad of formidable issues:

(i) Frequent Erosion in Blade Tenons:
(ii) Cavity Formation in High-Pressure Gland Areas:
(iii) Rotor Material Enhancement:

Engaging Triveni Turbines

After a meticulous evaluation of potential solutions and partners to address these challenges, our client made a strategic decision to engage Triveni Turbines. This decision was driven by Triveni Turbines' notable expertise in rotor remanufacturing and its inherent strength as an Original Equipment Manufacturer (OEM).



New Rotor Design

Solutions

- Integral Shroud Design
- Enhanced Rotor Material
- Coating Application
- Precision Shot Peening

Benefits

- Prolonged Turbine Lifespan
- Augmented Reliability.
- Heightened Plant Efficiency
- Enhanced Availability

In conclusion, the profound expertise of Triveni Turbines in rotor remanufacturing, coupled with innovative design adaptations, successfully resolved the erosion, corrosion, and material challenges faced by our esteemed client in the geothermal energy sector. This collaborative endeavor not only extended the operational life of the turbine but also significantly elevated the overall efficiency and dependability of the geothermal power plant, playing a pivotal role in advancing a sustainable energy future.

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Thank you.