

Phoenix Rotor™ Frame 6B

Hybrid rotor with new and Certified Previously Operated (CPO)™ components certified for 200,000 FFH of remaining life



The lifespan of heavy frame gas turbine components is limited. Experience indicates that age-related risk, including forced outages, increases exponentially when gas turbine components are operated beyond their design life.

EthosEnergy's Phoenix Rotor™ is intended for rotors approaching or exceeding 200,000 Factored Fired Hours (FFH) or 5000 Factored Fired Starts (FFS) and is available as an exchange or fleet program.

Aligned to meet safety-critical TIL-1576 issued by the OEM, Phoenix Rotors $^{\text{TM}}$ are available in stock to minimize outage duration.

EthosEnergy has access to Siemens proprietary material property database and rotor design tools. Proven OEM design and materials are used for EthosEnergy Frame 6B Phoenix compressor and turbine rotor discs.

| KEY FACTS Phoenix Roto | KEY FACTS | Phoenix Roto |
|------------------------|-----------|--------------|
|------------------------|-----------|--------------|

Expected 200k FFH Rotor Life

Warranty EcoLife™

Risk
Ownership
EthosEnergy

Rotor Disc NiCrMoV or NiCrMoVNb alloy

Scope

Compressor rotor

- Unstack + restack compressor rotor
- Replace with new:
 - o Last 4 stages of compressor wheels
 - o All compressor blades
 - o Compressor through-bolts
- Remaining compressor wheels will be CPO
- Coat all bladed compressor wheels with 5380 DP equivalent

Turbine rotor

- Unstack + restack turbine rotor
- Replace with new:
 - o Stage 1/2/3 turbine wheels
 - o Stage 1/2 and stage 2/3 turbine spacers
 - o Turbine through-bolts
- Distance piece and aft stub shaft will be CPO
- Coat turbine rotor components with 2F1 equivalent