

Transformer Health Assessment Report

TR-006: Zeta Backup Unit

Executive Summary

Parameter	Value
Status	<div><div></div>HEALTHY</div>
Health Score	92/100
Risk Level	Very Low
Scenario	Standby - Excellent Condition

Transformer Information

Attribute	Details
Transformer ID	TR-006
Name	Zeta Backup Unit
Location	Eastern Reserve Station
Rating	30 MVA
Voltage	33/11 kV
Age	4 years
Last Maintenance	2025-10-05
Next Scheduled	2026-04-05




Current Operating Parameters

Temperature Readings (Standby Mode)






- Top Oil Temperature: 28°C (Ambient)
- Winding Temperature: 30°C

- **Current Load:** 0% (Standby)

Oil Quality Parameters - Excellent

Parameter	Value	Limit	Status
Moisture Content	8 ppm	<25 ppm	 Excellent
Tan Delta	0.22%	<1.0%	 Excellent
Breakdown Voltage	72 kV	>50 kV	 Excellent

Dissolved Gas Analysis (DGA)

Gas	Concentration	Limit	Status
Hydrogen (H ₂)	25 ppm	<100 ppm	 Excellent
Methane (CH ₄)	15 ppm	<50 ppm	 Excellent
Acetylene (C ₂ H ₂)	0 ppm	<3 ppm	 Excellent
Carbon Monoxide (CO)	85 ppm	<300 ppm	 Excellent
Carbon Dioxide (CO ₂)	650 ppm	<2500 ppm	 Excellent

Assessment Summary

Overall Condition: Backup transformer in standby mode with minimal usage. All parameters well within limits. Recently commissioned unit (4 years) with excellent oil quality and no signs of degradation.

Risk Factors

- None identified

Recommendations

1. Maintain standby readiness procedures
2. Continue quarterly oil sampling
3. Perform annual energization test
4. Verify protection system readiness

Report Generated: January 12, 2026

Classification: Routine Monitoring - Excellent Condition