

SWIFT DEPLOYMENT OF SWITZERLAND'S EMERGENCY POWER - TRPP

BIRR - SWITZERLAND



BACKGROUND

Enhancing Switzerland's Emergency Reserve Capacity

Facing an energy crisis brought on by reduced winter hydropower generation, limited gas reserves, and the broader EU energy instability following the Russia-Ukraine conflict, Switzerland took decisive action. The country lacked emergency backup generation and urgently required a fast, reliable, and temporary solution.

The Birr TRPP (Temporary Reserve Power Plant) is a 250 MW facility utilizing eight dual-fuel turbines. The project was initiated by the Swiss Federal Energy Agency (SFOE) and implemented in collaboration with industry-leading turbine manufacturer & global energy technology provider and Prismecs.

KEY OBJECTIVES

Deploy a 250 MW Reserve Plant in 6 Months, The Swiss government's goal was bold and clear:



Rapidly deploy a mobile, high-capacity power solution



Ensure reliable integration into the national grid



Adhere to Swiss environmental and safety regulations






Be fully operational by February 2023, ahead of winter peaks



FROM CHALLENGE TO IMPACT

How Prismecs Delivered

	 Challenge	 Our Solution	 Impact
Accelerated Timeline	6-month deadline, no room for error	Deployed a seasoned TM2500+ team within weeks; fast-tracked BOP installation using modular bolted tanks	Commissioned on time , providing critical reserve power during a high-demand winter
Site Constraints	Limited space in a compact parking lot	Designed a tight-layout execution strategy to optimize space without compromising safety	Successfully installed 8 TM2500+ units with full auxiliary systems in limited space
Grid Integration	220kV connection built in months instead of years	Worked closely with Swiss authorities and global tech provider to align site and grid milestones	Achieved on-time grid connection , ensuring reserve power was grid ready when needed most
Environmental Impact	Residential proximity posed noise challenges	Implemented a 20-meter acoustic wall and noise mitigation strategies	Met Swiss noise regulations , ensuring community support and environmental compliance
Resource Mobilization	Skilled professionals needed on short notice	Mobilized a multicultural, multidisciplinary team experienced in turbine systems	Enabled rapid progress without delays, creating a collaborative work culture
Equipment Identification	Risk of confusion with identical assets	Implemented KKS coding to uniquely label and track every asset in CMMS	Eliminated ambiguity , cut search time for maintenance history, and improved reporting
Maintenance Classification	Inconsistent tracking hindered KPI visibility	Adopted EN-13306 standard to standardize maintenance types in CMMS	Generated reliable KPIs and insights to improve maintenance strategy
Inventory Management	Lack of tracking leading to inefficiencies	Deployed a CMMS-integrated inventory module with controlled part issuance and tagging	Enabled real-time stock visibility , avoided part misuse , and improved procurement planning



TRANSFORMATION ON THE GROUND

Prismecs' deployment was not limited to field execution. A full Computerized Maintenance Management System (CMMS) was implemented, creating a single source of truth for:



Asset lifecycle management



Compliance tracking & performance KPIs



Spare parts inventory & movement



Work order history and backlog visibility

MEASURING SUCCESS

100%

ZERO SAFETY INCIDENTS

100% safety achieved through Swiss-grade protocols

24/7

REAL-TIME OPERATIONAL VISIBILITY

CMMS digitization brought 24/7 system insights

On Time

DELIVERY

Project delivered on schedule despite extreme conditions



STRATEGIC MAINTENANCE GAINS

Standardized workflows, enabling long-term plant optimization



STRENGTHENED CLIENT TRUST

Trust and compliance elevated with strong regulatory alignment



DIGITALLY OPTIMIZED PERFORMANCE

Transparency, speed, and accountability achieved through digital transformation



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