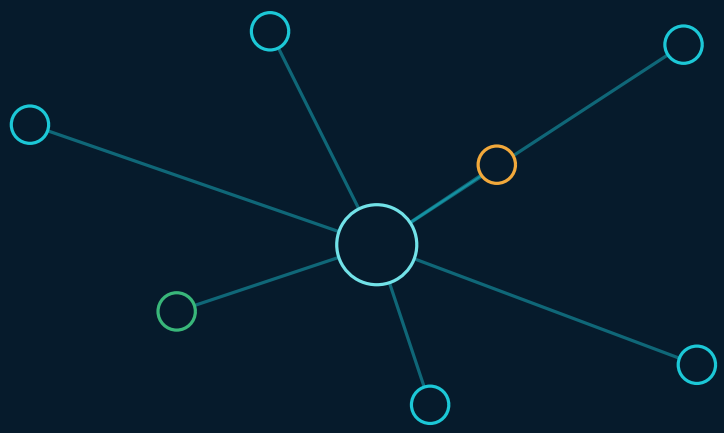
WATTECH
ENERGY

CORPORATE PROFILE | 2026

Engineering infrastructure that performs.

Electrical engineering. Energy systems. Infrastructure intelligence. Energy recovery.



WATTECH TECHNOLOGIES (PTY) LTD | REG. 2020/867881/07

South African engineering technology company

01 COMPANY POSITIONING

A ready engineering-technology company.

Wattech Energy combines engineering execution with proprietary products and operating software. The company is structured to assess infrastructure, engineer solutions, validate performance and support controlled deployment in real operating environments.

CAPABILITY

Electrical Engineering & Power Systems

Electrical integration, commissioning support, power-electronics maintenance and project execution across infrastructure and energy systems.

CAPABILITY

Solar & Hybrid Energy Systems

PV, storage and hybrid system architecture designed around site load, operating conditions, resilience and long-term project economics.

PRODUCT

HPPG Energy Recovery

Proprietary in-pipe hydroelectric energy-recovery platform for suitable pressurised water infrastructure and site-specific deployment opportunities.

PRODUCT FAMILY

Infrastructure Intelligence

GridSentinel, municipal optimisation and industrial process software that convert measurements and models into engineering operating decisions.

POSITIONING

Engineering capability first. Technology where it improves the o

Wattech is positioned as an operating engineering company with deployable solutions and pilot-ready technology - not as an idea studio. Every product is tied to a measurable infrastructure or operating problem.

02 DELIVERY MODEL

From operating problem to controlled implementation.

Wattech uses a staged engineering pathway that reduces uncertainty before a client commits to full operational integration.

01 Assess

Site, load, network, process and data review.

02 Engineer

Architecture, constraints, protection and design basis.

03 Simulate

Performance, control and economic validation.

04 Integrate

Meters, sensors, AMI, PLC, SCADA or historian links.

05 Commission

Shadow mode, pilot operation and controlled field testing.

06 Optimise

Performance tracking and iterative improvement.

DELIVERY PRINCIPLE

Use the infrastructure that already exists.

Wattech software is designed to sit above existing instrumentation where practical. New sensing is added only where the decision requires information that is not already available.

Conventional engineering capability with modern energy systems.

Wattech supports electrical infrastructure and distributed-energy projects with a practical, site-led approach.





ENGINEERING

Electrical engineering

Electrical panel integration, diagnostics, power-electronics maintenance, commissioning support and project execution capability.

ENERGY SYSTEMS

Solar & hybrid systems

PV architecture, equipment selection, storage integration, monitoring-oriented delivery and site implementation support.

Design around the actual operating environment.

Load, infrastructure condition, resilience requirement, available space and economics should shape the solution - not a generic equipment list.

04 HPPG ENERGY RECOVERY

Recover energy already inside the network.

The Hydro Pipeline Power Generator (HPPG) is Wattech's proprietary in-pipe hydroelectric platform for recovering usable hydraulic energy from suitable pressurised water infrastructure.



01

Hydraulic integration

Designed around pressure, flow, bypass, safety and the primary water function.

02

Electromechanical conversi

Turbine/impeller, generator, power electronics and monitoring architecture.

03

Deployment pathway

Site assessment, controlled pilot, performance logging and commercial scale-up.

COMMERCIAL POSITION

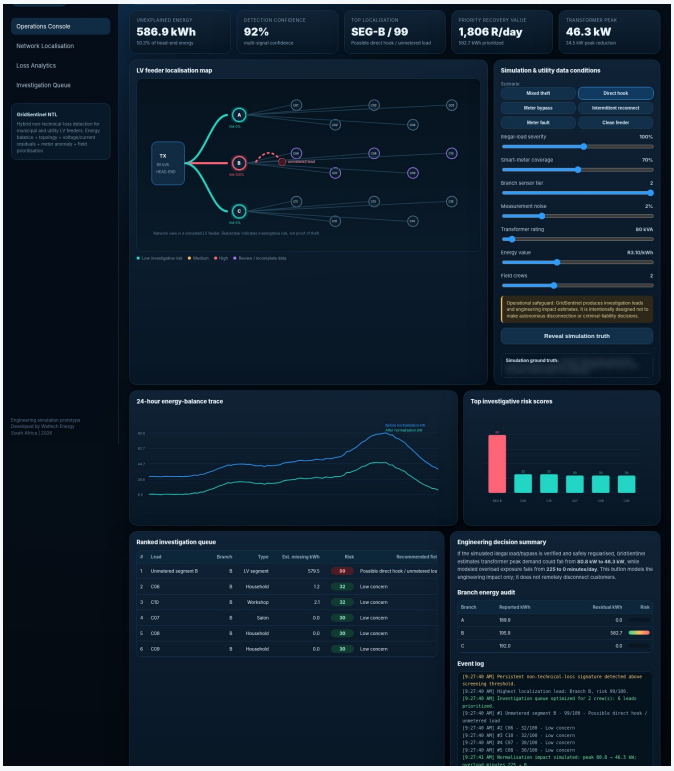
A field-piloted energy-recovery platform with a defined scale-up pathway

Wattech positions HPPG for suitable estates, farms, commercial sites and water infrastructure where pressure and flow conditions support technically and economically viable recovery.

05 GRIDSENTINEL

Distribution-network intelligence for loss, safety and revenue assurance.

GridSentinel is a Wattech product family that reconciles electrical networks, detects abnormal consumption and prioritises field action using existing and strategically added measurements.





UTILITY

GridSentinel Utility

For municipalities and utilities: feeder/transformer energy balance, NTL localisation, tamper evidence, risk scoring and field-plan prioritisation.

PRIVATE NETWORKS

GridSentinel Estate

For estates and private networks: bulk reconciliation, revenue assurance, transformer/phase health, common-load accounting and PV/BESS optimisation.

Commercial principle: use existing AMI, SCADA, GIS and meter data first.

Add branch or edge monitoring only where additional visibility materially improves localisation or confidence.

06 INFRASTRUCTURE INTELLIGENCE PORTFOLIO

Software that changes an operating decision.

The portfolio is organised around municipal infrastructure and industrial assets. Each product is designed to recommend or optimise a physical operating action rather than simply display data.

MUNICIPAL OPERATIONS

AquaShift
Pump and reservoir dispatch

PressurePilot
PRV and leakage optimisation

BioAir MPC
Wastewater aeration control

GridFlex
Feeder Volt/VAR optimisation

FlowSignal
Adaptive traffic coordination

INDUSTRIAL OPTIMISATION

DryCycle
Transformer drying-cycle control

PumpPilot
Health-aware pump dispatch

LinePulse DLR
Dynamic line rating and transfer

HarmoniQ
Reactive power and harmonic risk

HeatSweep
Combustion and sootblowing

READINESS LANGUAGE

Pilot-ready software, validated in working simulation environments.

Production deployment follows site-data calibration, historical replay, shadow-mode operation and engineering approval before any closed-loop control action.

Build the model. Test the decision. Then earn the right to automate.

Wattech's software development approach combines governing engineering equations, working browser applications, independent reference calculations and scenario testing.



Municipal operations simulator



Industrial optimisation simulator

Working interfaces

Interactive controls, constraints, scenarios, charts and result exports.

Independent reference models

Separate calculations prevent the application from simply validating itself.

Scenario testing

Clean, abnormal and boundary cases are tested before field pilot recommendations.

Field progression

Historical replay -> shadow mode -> guarded control integration.

08 MARKETS

Built for infrastructure-intensive environments.

Wattech focuses on customers where electrical infrastructure, energy cost, water systems and operational performance directly affect reliability, service delivery or commercial outcomes.

01

Utilities & municipalities

Electricity distribution, water pumping, pressure, wastewater and transport operations.

02

Residential estates & complexes

Private electrical networks, bulk reconciliation, solar/storage and communal infrastructure.

03

Commercial property

Hotels, malls, business parks and mixed-use developments.

04

Agriculture

Commercial farms, pumping, solar/hybrid systems and energy recovery.

05

Industrial & manufacturing

Power quality, pumps, thermal processes and production-support optimisation.

06

Water infrastructure

Pressurised networks, pump stations, storage and energy-recovery opportunities.

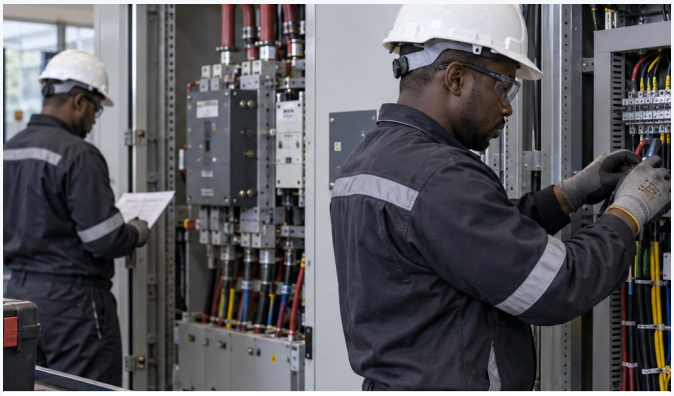
Engagement can start small.

A scoped engineering assessment or software pilot can establish technical fit, data availability, integration effort and business value before a larger deployment.

09 SELECTED PROJECT EXPERIENCE

Field and workshop experience across electrical, solar and energy recovery.

Selected projects are presented as evidence of the operating contexts Wattech has worked in. Representative visuals are labelled accordingly.



ELECTRICAL ENGINEERING

Medium-voltage panel wiring subcontract

Panel wiring and assembly-related electrical work associated with ACTOM medium-voltage equipment.

Representative visual



HPPG

Commercial-farm HPPG pilot

Field pilot deployment supporting HPPG integration, commissioning and real-world learning.

Representative visual



SOLAR

Solar installation - Andover Nature Reserve

Renewable-energy installation and site implementation support in Mpumalanga.

Representative visual



MAINTENANCE

Power-electronics maintenance

Diagnostics and technical support on farm-based power-electronics infrastructure.

Representative visual

10 COMMERCIAL ENGAGEMENT

A practical route from first assessment to long-term operating value.

Wattech can structure engagements around the maturity of the problem and the customer's procurement model.

01

Engineering project delivery

Defined scope, design, procurement coordination, installation support, commissioning and handover.

02

Controlled technology pilot

Time-bound pilot with defined baseline, measurements, success criteria and field validation.

03

Software licensing / service

Recurring or project-based access to optimisation and network-intelligence software with support.

04

Integration & support

Data mapping, instrumentation, dashboard/control integration, model calibration and operational support.

COMMERCIAL DISCIPLINE

Define the baseline before claiming the saving.

Wattech separates simulated opportunity from field performance. Customer-specific value is measured against an agreed baseline during pilot or commissioning.

11 TECHNICAL TEAM

Engineering experience across power, grid, electronics and applied energy systems.

Wattech's technical capability is supported by a multidisciplinary team and specialist network.

Michael Monareng

Founder & CTO

Alternative-energy R&D, product development and engineering integration.

Maxwell Maphako

Senior Engineering Advisor

MSc Engineering; extensive international and energy-project leadership experience.

Njabulo Mazibuko

Grid Modernisation Engineer

BEng Electrical (UCT); power-system and grid-modernisation capability.

Ephraim Monareng

Medium Voltage Specialist

Medium-voltage systems and panel/infrastructure experience.

Monde Booi

NDT / Technical Inspection

Advanced Diploma in NDT; inspection and engineering verification support.

Tshegedi Mokalapa

Electronics Engineering

Advanced Diploma in Electronics Engineering; electronics and systems support.

Connected to institutions and industry relationships that strengthen execution.

Wattech's development journey has been supported by relationships across South Africa's science, technology, innovation and commercial ecosystem.

01

The Innovation Hub Management Company

Incubation, innovation support and earlier HPPG development funding.

02

VUT Southern Gauteng Science & Technology Par

Regional science, technology and innovation ecosystem relationship.

03

CSIR

Science and engineering ecosystem relationship and technical network.

04

Industry relationships

Commercial engagement, site opportunities and deployment pathways across energy and infrastructure sectors.

Ready to collaborate on real infrastructure problems.

Wattech is open to client deployments, pilot partnerships, technical integrations and project-development opportunities where the engineering case is clear.

WATTECH
ENERGY

COMPANY INFORMATION

Bring us the operating problem.

Wattech Energy is ready to assess the infrastructure, define the engineering pathway and build the solution around the operating environment.

WATTECH TECHNOLOGIES (PTY) LTD

Trading as Wattech Energy

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Electrical Engineering | Solar & Hybrid | HPPG | GridSentinel | Optimisation Software