



**LESEDI**  
ENERGY ENGINEERING

# **OIL, GAS & POWER (OGP) DIVISION**



OIL



GAS



POWER

Engineering, Procurement, and  
Construction Management  
(EPCm) Services

[www.lesedins.co.za](http://www.lesedins.co.za)

# CLIENT-CENTRIC EPCm DELIVERY

Lesedi supports plant owners in delivering capital projects through expert-driven Engineering, Procurement, and Construction Management (EPCm) services – from early concept to final handover.

## Providing professional services as the Owner's Engineer.

Our EPCm model is designed to offer clients flexibility, transparency, and control, while we manage complexity and technical delivery. We integrate seamlessly into owner teams to plan, design, coordinate, and oversee every project phase with precision and accountability.

### OUR EPCm OFFERING INCLUDES:

- Independent design reviews
- Compliance checks
- Constructability reviews
- Business Plan Development (FEL-1)
- Concept Plan Development (FEL-2)
- Front-End Engineering & Design (FEED)
- Multidisciplinary Engineering (Process, Mechanical, Piping, Fire, Civil, Structural, Electrical, Control & Instrumentation)
- Procurement Planning & Expediting
- Construction Supervision
- Project Controls (Schedule, Cost, Risk)
- Contract & Commercial Support
- Commissioning Support

### ENSURING OPERATIONAL READINESS:

- Commissioning strategy review
- Performance testing
- Final documentation
- Claims management

### STRATEGIC PROCUREMENT ASSISTANCE:

- Tender document preparation
- Bid evaluations
- Contract strategy
- Vender audits

### ON-SITE OVERSIGHT AND ASSURANCE:

- Site supervision
- HSE audits
- Progress reporting
- Interface management

**Lesedi brings structure, visibility, and expert governance to every stage of capital project development.**



## SPECIALISED ENGINEERING EXPERTISE

Lesedi offers advanced, niche engineering services tailored to high-performance industrial environments. Our specialised capabilities support technically demanding applications, from gas turbine integration to fire protection design – delivering efficiency, safety, and control in mission-critical systems.

### OUR NICHE EXPERTISE INCLUDES:

- **Fire Engineering:**  
Fire Protection and detection systems
- **Gas Turbine DCS Integration:**  
Centralised control and plant efficiency
- **Open Cycle Gas Turbine (OCGT) Systems:**  
Fuel storage, offloading, conditioning, filtering, and forwarding
- **Combined Cycle Gas Turbine (CCGT):**  
Process Integration and Balance of Plant (BOP)  
Flow Sheet Development
- **Gas Turbine Co-generation (Combined Heat & Power):**  
Process optimisation and plant integration
- **Gas Turbine Selection, Step-Load & Transient Analysis**
- **Greenfields Power Station:**  
BOP Design and Integration
- **Brownfields Power Generation:**  
Modifications, upgrades and extensions
- **API 653 Fuel Storage Tanks:**  
Inspections, maintenance and repair projects

We engineer precision into complex systems – ensuring safety, reliability, and seamless integration.



# ENGINEERING SERVICES FOR EVERY PHASE OF THE PROJECT ON BEHALF OF THE OWNER

We believe that transparent and consistent communication fortify trust the enhances project delivery goals.

## CONCEPT TO DESIGN:

- Definition and review of project scope
- Evaluation of budget and identification of financing sources
- Conduction of feasibility and site studies
- Preparation of early project schedules
- Preparation of technical specifications & functional specifications needed during the procurement
- Evaluation of EPC contract documents (parameters, Quality Assurance, Constructability)
- Design review

## PROCUREMENTS AND FABRICATION PHASE:

- Assessment and qualification of manufacturers and their suppliers
- Production and pre-fabrication Quality assurance and Quality control
- Witnessing Factory Acceptance Tests (FAT) and evaluation of test results
- Expediting delivery dates
- Pre-shipment inspections to prevent damages during transportation

## CONSTRUCTION AND EXECUTION PHASE:

- Keeping work on schedule and on budget
- Project cost reporting
- Site supervision and reporting on progress and quality
- Release of milestone payments
- Contract management
- FIDIC Silver book
- Documentation control
- Health, Safety and Environmental consulting

## COMMISSIONING AND HANDOVER PHASE:

- Preparation of performance testing and hand-over to start-up
- Development of punch lists
- Development of document warranty items
- Review and verification of operational procedures
- Commissioning, planning and management
- Trial start-up supervision
- Evaluation of test results
- Preparation of maintenance and operating plans
- Ensure training requirements are complete

## PROVEN SECTOR EXPERIENCE

### NOTABLE EPCm PROJECTS:

- Transnet Port Authorities (TNPA) mobile OCGT Power Stations (2 x 22MWe GE Gas Turbines)
- Fuel storage facilities across Africa (FEL-1, FEL-2, FEED, inspection, repair, testing & commissioning)
- Front-end engineering studies for gas turbine co-generation (combined heat & power) in ceramic and cleaning product industries



## WHAT SETS LESEDI APART

Lesedi delivers trusted, end-to-end, integrated solutions with the depth of experience and technical strength to handle complex capital projects across Africa.

### OUR DIFFERENTIATORS:

- **Proven Track Record:** 2,000+ MWe OCGT installed capacity
- **Specialist Expertise:** Gas turbines, fire engineering, process integration
- **Advanced Control Systems:** DeltaV distributed control system (DCS) integration with Mark VI DCS
- **Complex Engineering Integration:** Large scale bespoke Greenfields projects, including plant wide auxiliaries design, procurement and construction for a 4800MWe coal-fired power station
- **Full Lifecycle Capability:** FEL, FEED, execution, commissioning, training
- **Client-Centric Approach:** Flexible EPCm integration with owner teams
- **Safety & Quality Commitment:** Embedded SHEQ systems
- **Pan-African Reach:** Project experience across the continent

We build trust by consistently delivering quality – from concept to completion.



## LEADERSHIP & CONTACT

Lesedi Nuclear Services - Oil, Gas & Power Division

Driving integrated project solutions across Africa

### OGP LEADERSHIP TEAM:

- **Corné Welgemoed** - Executive Manager: Oil, Gas & Power
- **Gerard du Plessis** - Senior Manager: Engineering: Oil, Gas & Power
- **Arno Bakker** - Senior Manager: Project Development: Oil, Gas & Power

Our leadership team brings technical depth, execution experience, and client focus to every engagement.



**LESEDI**  
ENERGY ENGINEERING

# LEADERS IN INDUSTRY

## GET IN TOUCH

### CAPE TOWN OFFICE

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