



LESEDI
ENERGY ENGINEERING

LESEDI SERVICES DIVISION

www.lesedins.co.za

1. LESEDI'S SERVICES DIVISION

Lesedi's Services Division brings **deep technical expertise** to full-scope nuclear maintenance and outage support both across South Africa and at international facilities.

With extensive experience at Koeberg Nuclear Power Station and a growing global presence, we're trusted for our safety-first execution, precision, and proven nuclear capabilities.

We do more than maintain systems we integrate with plant operations, collaborate across engineering disciplines, and continuously innovate to ensure critical systems run safely, efficiently, and in full regulatory compliance.



2. WHAT WE DO: STRATEGIC NUCLEAR MAINTENANCE & SUPPORT

CORE MAINTENANCE & OUTAGE SERVICES:

REACTOR COOLANT PUMPS & FUEL HANDLING SUPPORT

In collaboration with site engineers, our team supports the safe and efficient management of reactor coolant systems and nuclear fuel.

Though often unseen, this work is vital to the plant's continuous operation.

Lesedi provides essential support for fuel-handling operations and reactor coolant pump (RCP) systems.

Our services cover both routine and outage-based tasks, including inspection, maintenance, and assistance with the safe removal and installation of fuel and related infrastructure.



STEAM GENERATOR MAINTENANCE

Our steam generator team handles everything from eddy current testing to manway access and nozzle dam operations.

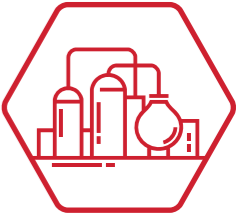
We inspect, repair, and return systems to service – safely, efficiently, and without compromise.

Lesedi is trusted with the full scope of steam generator inspection and maintenance during outages both at Koeberg and international facilities.

Our scope includes:

- Eddy Current Inspections:
- SAX (Axial Probe)
- STL (Long Rotating)
- STS (U-bend)
- S10 (Tube Support Plates)
- STT (Expansion Zone)
- Tube Plugging & Repairs
- Manway Access & Nozzle Dam Installation/Removal
- Gap Measurement & Isolation Support

We ensure the safe and timely return to service of these critical systems – always aligned with client requirements and regulatory standards



VALVES & PUMPS

We maintain, refurbish, and recertify a wide range of valves and pumps – including nuclear-class components.

From Fischer and Fratol to C&I valves, our teams combine deep technical expertise with full regulatory compliance.

Our team delivers lifecycle maintenance and refurbishment of both nuclear and conventional valves, including:

- Fratol
- Fischer
- Dallas
- Masoneilan
- Control & Instrumentation Valves

We manage disassembly, cleaning, reconditioning, testing, and recertification ensuring optimal performance and full regulatory compliance. Additionally, our pump expertise supports safe plant operation under high pressure and high temperature conditions.





SPECIALIST CAPABILITY:

HVAC & FILTRATION SERVICES

Our team is fully trained and authorised to maintain Koeberg’s HVAC systems including chillers, filtration units, and ventilation for high-risk zones.

This highly specialised work requires deep expertise, and we’re proud to deliver it with precision and care.

Lesedi’s team is authorised to maintain critical HVAC systems at Koeberg. Our HVAC division is built on 28+ years of legacy and over 100 years of combined team experience managing systems.

Key Systems We Support:

- DEG Chillers (Carrier 19DH): Full overhauls, B- and C-services, oil changes, OSHA inspections.
- DEL Reciprocating Chillers: Weekly inspections, compressor replacements, fault diagnostics.
- Filtration Infrastructure:
Over 2,000 filters maintained across Koeberg, including:
 - HEPA filters (source test compliant)
 - Iodine/Charcoal filters (radiation-controlled zones)
 - Pre-filters, bag filters, pads, and coalescers

Critical Areas Supported:

- Reactor Pit Cooling
- Containment Ventilation
- NAB & Fuel Building
- Electrical Building & Control Room
- Fire Ducting Systems & Fire Damper Resets
- Server Rooms, Cask Storage, ISI Vaults
- ACP1, Edusec, Documentation Centre, Visitor Centre, and more

Our HVAC team also leads innovation and system upgrades in partnership with Engineering- driving energy efficiency, compliance, and modernization across the plant.





MECHANICAL TUBE CLEANING

Through our exclusive partnership with Conco in Africa, we deliver mechanical tube cleaning that outperforms high-pressure blasting up to 70% faster and 90% cleaner.

A smarter, more efficient solution for modern plants to.

Lesedi is the exclusive African agent for Conco Systems, the global leader in mechanical tube cleaning. This service is offered as a safer, faster, and more efficient alternative to high-pressure water blasting.

Why Mechanical Tube Cleaning?

- 70% faster than HP water cleaning
- 90% less wastewater generated
- 24 bar safe pressure vs. 3,000 bar for HP systems
- Compact footprint for shutdown efficiency

Technologies Used:

- **TruFit** - For light/medium fouling
- **Excaliber** - Rotary cleaning for tough build-up
- **MiteeMouseII** - High-power handheld unit
- **HydroDrill** - Drill tip cleaning for fully blocked tubes
- **FinTech** - For online Fin-Fan exchanger cleaning (no shutdown required)

Pre-Inspection & Reporting:

Before any job begins, we conduct a full pre-inspection:

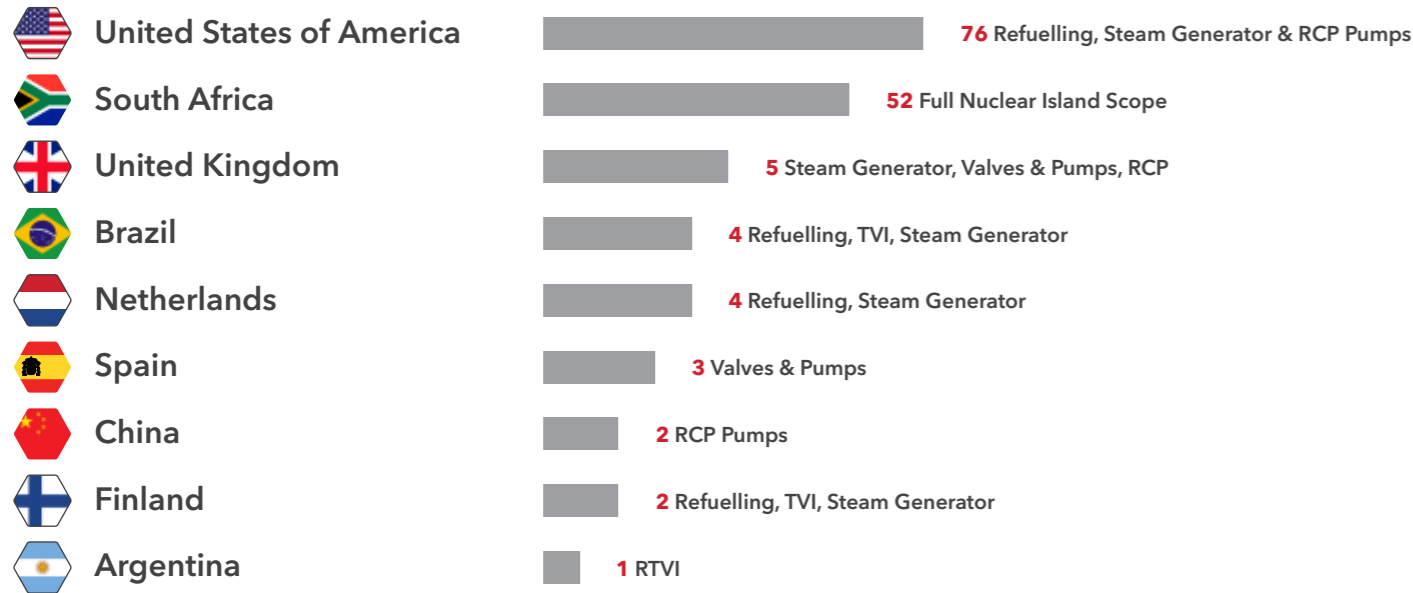
- Verify plant conditions and tube accessibility
- Define scope and safety parameters
- Capture before/after data (performance, cleanliness, efficiency)

All operations are measured on safety, time, budget, and final tube performance.



3. INTERNATIONAL AND LOCAL SCOPE SUPPORT

COUNTRY | NUMBER OF OUTAGES



GLOBAL FOOTPRINT

Lesedi has supported **over 106 international outages**, bringing South African excellence to nuclear stations across:



UNITED KINGDOM

Sizewell B



UNITED STATES OF AMERICA

Diablo Canyon, TMI, Turkey Point, Davis Besse, Millstone, Sequoyah, Callaway



BRAZIL

Angra 1 NPP
Angra 2 NPP



ARGENTINA

Embalse



FINLAND

OL3



NETHERLANDS

Borssele



FRANCE

Bugey
Somanu



CHINA

Qinshan NPP
Daya Bay



SPAIN

Cofrentes,
Vandellòs
Garoña

LOCAL FOOTPRINT

As a **proudly South African company**, Lesedi plays a leading role in supporting the country's energy infrastructure, with a particular focus on the continent's only nuclear power station: Koeberg Nuclear Power Station (KNPS).

Our Services Division is fully embedded within Koeberg's operational framework, providing authorised expertise, outage support, and critical maintenance that keep the plant running safely and efficiently.

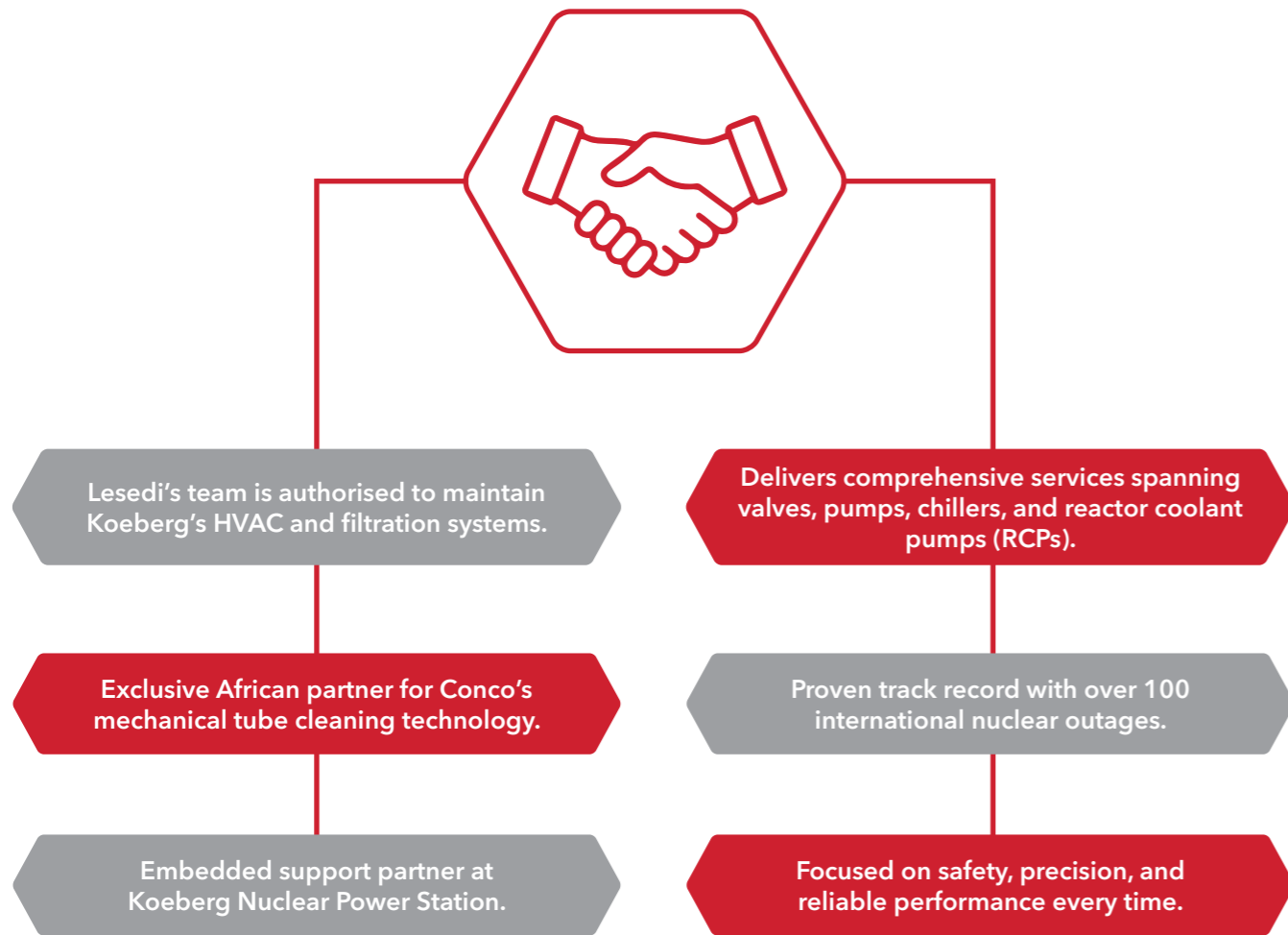
Our teams ensure that high-risk, high-value systems operate to the highest standards, helping Eskom deliver consistent, regulated power to millions of South Africans. Beyond Koeberg, Lesedi supports a growing number of auxiliary and industrial facilities across the province.

These include HVAC installations, ventilation maintenance, and general infrastructure upgrades at:

- Training centres
- Server rooms and IT hubs
- Logistics and bulk storage facilities
 - Administrative buildings (ACP1, Edusec, Documentation Centre, and more)
 - Public-facing centres such as the Koeberg Visitor Centre and Conservation Centre

Our team is made up of locally trained, highly skilled professionals. By working at the frontlines of South Africa's nuclear capability, Lesedi not only retains world-class skills – we help grow them for the next generation.

4. WHY PARTNER WITH LESEDI SERVICES DIVISION?



5. CONTACT US

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