

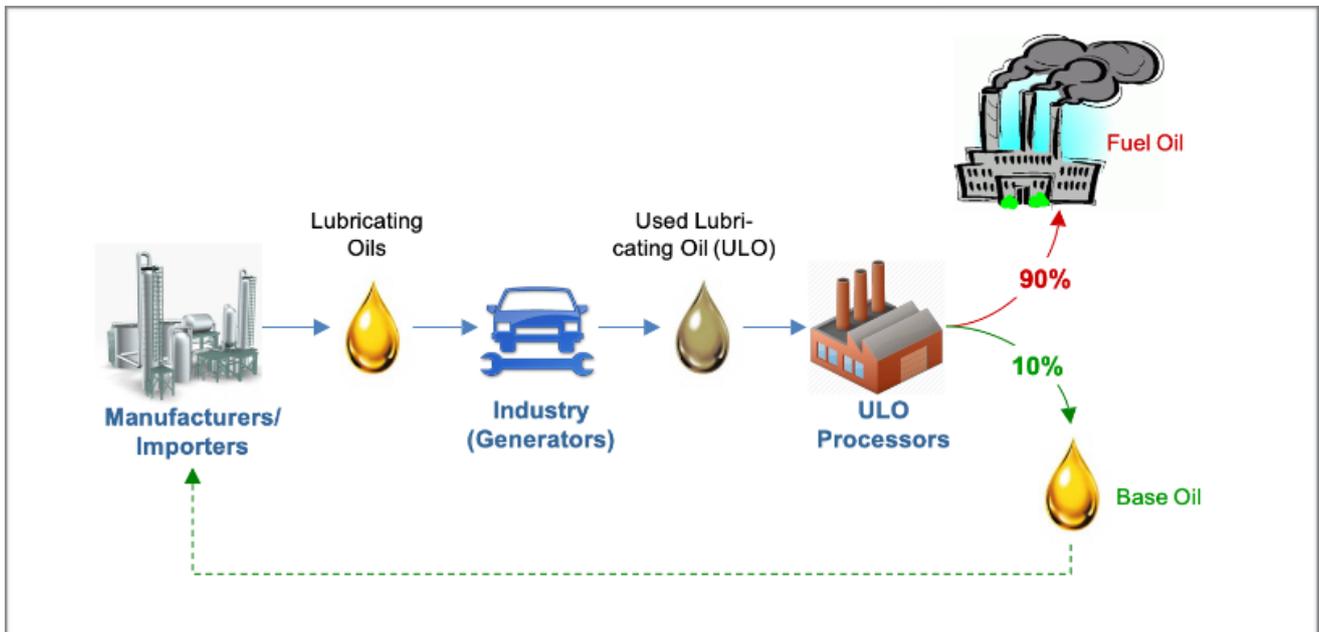


ROSE REPORT

RECYCLING OIL SAVES THE ENVIRONMENT

CONTENTS

1. Moving Towards a Closed-loop Economy
2. Flexilube Joins ROSE
3. ROSE Collector & Processor Roadshow
4. List of Collectors and Processors



1. The Future Imagined for Used Oil Sees SA Embracing a Closed-loop Economy

South Africa needs to move towards a more circular economy and away from the traditional focus on diversion from water and soil resources.

Moving towards a more circular economy - which is based on the principle using, recycling, and reusing, in an (almost) closed-loop - could deliver opportunities including reduced pressures on the environment; enhanced security of supply of raw materials; increased competitiveness; innovation; growth and jobs. However, the shift also poses challenges such as financing; skills; consumer behaviour and business models; and multi-level governance.

Bubele Nyiba, the CEO of the ROSE Foundation (Recycling Oil Saves The Environment) says that the used oil industry in South Africa is an example of a sector that would greatly benefit from becoming an entirely closed circular economy through re-refining, but this will take time.

“Internationally, there is a significant trend towards re-refining of used oil back to a base oil and it is thought that 70-80% of used oil will be re-refined back into base oils in Europe by the end of 2020.”

Environmentally, re-refining used oil is the ultimate solution for several reasons:

- Less utilization of natural resources;
- Emissions of carcinogenic compounds through re-refining are 15 times lower;
- Very low production of pollutants;
- CO2 emissions from re-refining are two times lower; and
- Re-refining offers effective conservation of synthetic base oil compounds.

“Coupled with the obvious environmental benefits of re-refining, there are economic benefits to creating a closed-loop economy - South Africa has an over-reliance on base-oil imports, which can carry long lead times and are impacted by exchange rates, logistics, weather patterns, port operations etc. All of which makes re-refining an appealing choice for us,” says Nyiba.

However, South Africa will struggle to transition towards a closed-loop model. “The local market is driven on price and it is very expensive to set up a plant to produce high-quality re-refined base oil. Installing the re-refining infrastructure runs into millions and very few businesses can afford an outlay of this magnitude. Coupled with this we have a very high demand for burner fuels in South Africa - out of 350 million litres of new oil sold per annum, 120 million litres is collected for recycling. 90% of this is processed into fuel oil, to be used in furnaces, boilers, and other industrial heating requirements.”

“There are also no government incentives supporting re-refining or products made from re-refined base oil; and power costs are high which impacts on the energy-intensive processes involved in re-refining,” explains Nyiba. “Whereas Europe has a very high level of environmental awareness amongst consumers – they label their re-refined base oil with environmental endorsements - our market is primarily driven on price and re-refined oil needs to compete on price with virgin oil.”

What does the future look like for SA?

South Africa is most probably the most developed re-refined oil market in Africa, followed by Egypt. Its market is estimated to be worth half a billion rand per year and is staffed by a combined workforce of 1,500 people. There are however currently only three re-refiners in the country that produce base oil from used lubes: FFS Refiners, Flexilube, and Motolube.

“Looking ahead ROSE would like to see South Africa follow in the footsteps of the global movement towards re-refining most used oil collected back to a base oil and thereby create a closed-loop system. We hope to see a growth in re-refining in South Africa, and indeed in Africa as a whole, as re-refining could be the key to unlock many doors on the continent: sustainability, job creation, reducing reliance on imports and lowering the continent’s environmental impact.”

“While South Africa may not yet be able to adopt a European approach to used oil, a future imagined sees a focus on a closed loop and circular economy, which will see other

companies upgrading their plants to a capacity that can produce base oil. We need to encourage those that can make the transition, without talking down our burner fuel producers," concludes Nyiba.



2. Meet the Newest Member of the ROSE Family - Flexilube

Flexilube, one of the leading independent lubricants manufacturers in South Africa, has recently joined ROSE as a registered member.

Founded in 1984 and based in Meyerton in Gauteng, Flexilube not only manufactures an extensive range of industrial and automotive lubricants, as well as cutting oils and metal-working fluids such as Biokool® and Nanokool®, but also collects used-oil through their partner organisation EWOR (Environmental Waste Oil Recycling), which is then re-refined back into a base oil using state-of-the-art processes.

According to Flexilube, the company has an uncompromising attitude to high-quality standards and their blending techniques conform to the latest international standards – they were in fact the first independent lubricants manufacturer in South Africa to obtain the ISO 9000 certification. Flexilube and EWOR are audited by TÜV Rheinland® and have been found to satisfy the requirements of ISO 9001:2008; 14001:2004 and BS OHSAS 18001:2007.

Through continuous liaison with international lubricant and additive companies Flexilube is able to remain abreast of new developments and technology, incorporating the advances into their increasingly sophisticated range of products.

“Becoming a member of ROSE has indicated Flexilube and EWOR’s commitment to sound environmental policies and a high standard of integrity,” says Bubele Nyiba, CEO of the ROSE Foundation. “The company is committed to complying with all applicable environmental laws and regulations.”

“Flexilube and EWOR make health, safety, and environmental considerations a top priority

in planning for all existing and new facilities, processes, products, and services,” explains Irene von Knoblauch-Dreyer, Managing Director of Flexilube. “We have identified and implemented pollution prevention measures, source reduction, and waste minimization strategies that are appropriate to the nature of our business. We also continually seek opportunities to improve the principles and procedures for responsible recycling by periodically reviewing the organisations overall environmental performance.”

“As a true recycler of used lubricating oils, Flexilube is very mindful of the responsibility of caring for the environment and is committed to the environmentally acceptable collection, storage and true recycling of used lubricating oil back into a useable commodity; which would otherwise be irresponsibly dumped, causing contamination of ground water, or burnt as fuel, emitting odours, heavy metals and other compounds into the atmosphere.”

“This sustainability model has been used by our company for over 30 years in South Africa, and we are very proud to still be operating, and contributing to the sustainability of the South African lubricants industry by practising true recycling. Becoming a member of the ROSE Foundation is in line with our stringent environmental procedures and policies and we look forward to a fruitful relationship with ROSE,” concludes von Knoblauch-Dreyer.

Both Flexilube and EWOR are B-BBEE certified and state that it is their goal to continuously make improvements in line with the codes of good practice on black economic empowerment.



3. ROSE Collector and Processor Roadshow

The ROSE Foundation recently hosted a series of training workshops in Gauteng, Durban and Cape Town for collectors and processors.

The events focused on issues such as the current state of the industry, collection volumes and challenges to the sector.

CEO Bubele Nyiba noted that ROSE's inclusive strategy is bearing huge dividends: "We are no longer seeing such anti-competitive behaviour."

"We encourage registration rather than use it as a lever, and the process is free and straightforward; training is also free, not a condition for joining - We work as partners rather than as watchdogs, supporting the collectors and processors towards compliance."

Nyiba noted that there were still many collectors are not making the most of incentives and others driving up the cost of used oil.

Nyiba acknowledged that although the industry needs to edge towards close-loop economy, the expense of doing so is prohibitive, and ROSE would need to consider how to support such initiatives in the future.

ROSE environmental claims administrator, Althea Swartz, focused on operational compliance: "ROSE now has 176 licensed collectors and 18 licensed processor, with a high compliance rate overall."

Swartz noted that ROSE is continuing to invest significantly in compliance training to ensure that the levels of compliance continue to improve.

Key compliance issues ROSE is focusing on include:

- Waste Transport Permit application –every business must be CIPC registered
- Waste Transport Permit renewal – the last waste manifest copies must be submitted with the generator and processor details
- Unethical behaviour – Negatively impacts individual businesses and the industry
- PrDP-D application – Every driver must apply within 3 months of dangerous goods certificates being issued
- Oil Spill Insurance – If the driver of the vehicle was not compliant the insurers will not pay for the cleanup
- Poor housekeeping - Threatens health, safety and environment
- Authorities – Have a mandate to enforce enabling legislations e.g. NEM:WA, NRTA
- Processors – Have a responsibility to ensure compliance among collectors offloading on their premises

ROSE Licensed collectors and processors currently enjoy the following benefits:

- Environmental incentives – Drive accountability of generated, collected and recycled used lubricating oil and oil cans
- Operational Manual, Waste Manifest, Training and Audits– Create a compliant used lubricating oil industry
- Advisory Support and Newsletter updates– Raise awareness regarding the legislation changes that affect the used lubricating oil stakeholders
- Bulking Points funding – Create job opportunities
- Oil Spillage insurance – Reduces the liability towards collectors and protect the environment from adverse contamination
- PPE, Spill kits and First Aid kits – Increases the health and safety of the collectors during operations
- Engage local, provincial and national authorities – To ensure cooperation and compliance

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- Profiling on our website and accreditation certificates – Increases stakeholder’s business credibility with generators and with other industry bodies
- Customer service training – Increases stakeholder’s business growth and sustainability

ROSE is currently developing a mobile app to assist collectors with recording collection volumes. The concept and working model was introduced at the workshops. Nyiba explained that the app was a tool to help collectors and processors: “ROSE aims to reduce paperwork and make the task of data collection easier and more efficient, through the use of the app.”



Above: Collectors at the Western Cape workshop receive their renewal license certificates.

4. List of ROSE Collectors and Processors

[Click here to download](#) the list of the ROSE approved Collectors and Processors.

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