



Insulating Oil and Services for Enhanced Transformer Performance and Service Life

EOS is your partner of choice when it comes to insulating oil services and transformer maintenance.



Benefit from comprehensive EOS services:



Oil Regeneration

- Mobile Regeneration Units (MRU)
- Stationary Plant Regeneration



Oil Processing

- Mobile Processing Units (MPU)
- Mobile Processing
- Filter, Degassing, Drying



"Closed-Loop" Model

- Used Transformer Oil Collection
- Oil Regeneration
- Sale to Market as Base Oil
- Reuse as Transformer Oil



Oil Testing

- TransTest / Oil Analysis
- Sample Testing
- Consulting on Maintenance



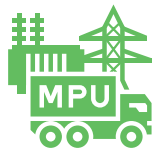
Oil Logistics

- Used Transformer Oil Collection
- Oil Transport
- Temporary Oil Storage (Flushed Tank)



Transformer Services

- Inspection & Maintenance Services
- Medium Voltage Audit
- Tap Changer Revision
- Certified Assembling of Oil Trays
- Thermography Test
- On-Site Oil Sample Taking



New Transformer

- Vacuum-Oil Filling
- Delivery and Commissioning

EOS stands for trusted purity - for more than 70 years

Customers in the electricity transmission and distribution markets as well as high-energy demanding industries benefit from a comprehensive range of EOS preventive services, which we offer to the market for more than 70 years. Our products and services improve the performance and service life of your transformers and support you in your efforts to meet the goal of cost-efficient and environmentally sound energy supply. EOS offerings are available all over Europe.

Insulating oil management as key to success

Today, a widely acknowledged and viable option for many utilities and industrial asset managers involves the transformer life extension and the various possibilities to effectively manage insulating oil as offered by EOS. A reason for this positive mind-set change are a continued focus on environmental awareness, increased regulations, and the pressure to make distribution transformers last longer than their 15 to 20 years expected life.

EOS Premium safeguards valuable resources today, tomorrow and for years to come.



EOS Premium quality is equivalent to new oil

Our EOS Premium is a high-quality regenerated insulating oil that meets the stringent operational demands specified by the standard IEC 60296:2012 for new, unused insulating oil. Select EOS Premium if you are looking for an ecologically sound and sustainable alternative compared to new insulating oil.

EOS “Closed-Loop” model saves valuable oil

With the “Closed-Loop” model, the EOS experts even go one step further: Through best practices, used transformer oil is collected at our customer premises, regenerated to as-new oil quality at one of EOS’ stationary facilities and resupplied to you for all your maintenance and refurbishment requirements.

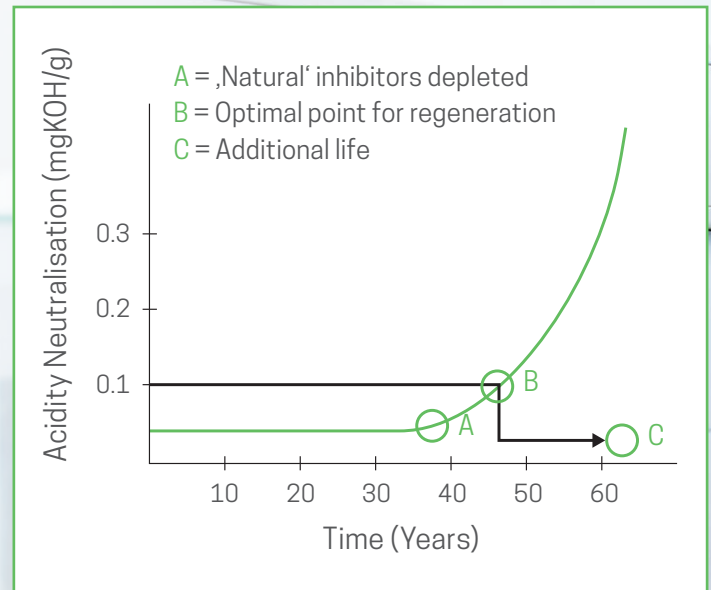
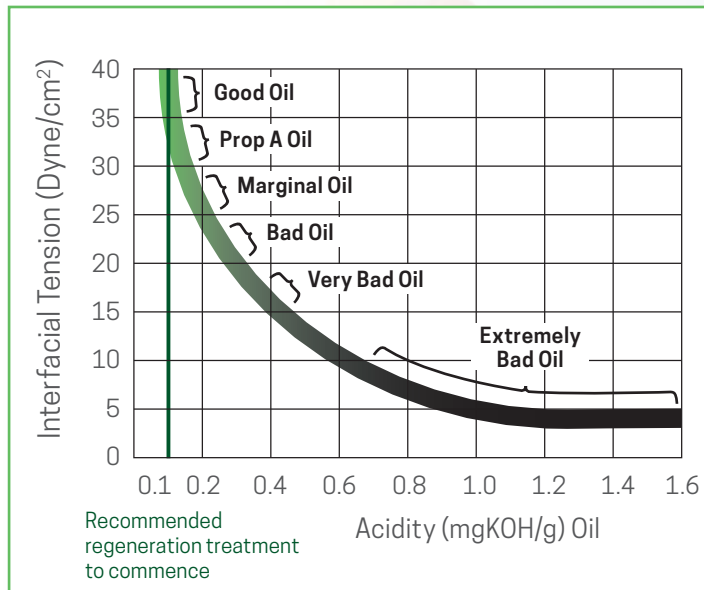


EOS advantages at a glance:

- ◆ Up to 50% transformer service life extension achievable
- ◆ Reduced downtime: insulating oil drying and degassing during operation
- ◆ On-site and off-site oil regeneration
- ◆ High quality: EOS Premium complies with IEC 60296:2012
- ◆ Less maintenance and investment in operation with TransTest
- ◆ Comprehensive consulting and training

Keep an eye on the oil quality

EOS recommends to regularly check the insulating oil quality and take appropriate action to enhance the quality of your transformers.



Do you know the condition of your transformers?

The reliability and performance of your power generation installations materially depend on the availability of their transformers. They ensure that the power generated is fed into the power grid with the proper voltage. To be able to perform this task it is important to maintain the high quality of the insulating oil used.

In service, however, mineral oil degrades due to the conditions of use. The inhibitors become depleted and the measured acidity in the oil begins to increase.

Simple EOS TransTest confirms oil quality

A simple quality check of an insulating oil sample from your transformer could provide first indications about the oil's condition. Such a sample could for example be taken during one of your regular mandatory audits and tested at one of our EOS laboratories (TransTest).

For critical transformers EOS can offer you a higher level of oil analysis such as monitoring Interfacial Tension, DDF (Tan Delta) and Paper Strength (DP). These tests can provide additional forensic information on which you can base critical engineering and financial decisions.



Early intervention avoids downtime

As a transformer's lifespan will ultimately depend on the health of its paper insulation, EOS experts would recommend you to conduct an in-situ regeneration programme when the measured acidity reaches 0.1 – 0.2 mgKOH/g.

Thus, avoid costs resulting from bad oil or – even worse – damage and downtimes.

Energise your transformers with EOS

We at EOS recommend to regularly check the insulating oil quality and take appropriate actions. Because detected at the right time, you can benefit from cost-efficient measures such as an oil processing or regeneration – often with the transformer energised.

The improved insulating oil quality will ultimately enhance your transformer performance and service life.

Reach out to EOS for expert support.

About EOS

Electrical Oil Services (EOS) is a Haltermann Carless Group company and a leading supplier of both regenerated and unused electrical insulating oils and associated services in Europe. EOS specialists have '70 years' experience in the production and marketing of insulating oils and supply both large and small customers in the electricity distribution industry with tailor-made solutions.

With its three locations in Europe EOS is in the position to offer a complete transformer service package to large and small customers in the electricity distribution industry all over Europe.



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