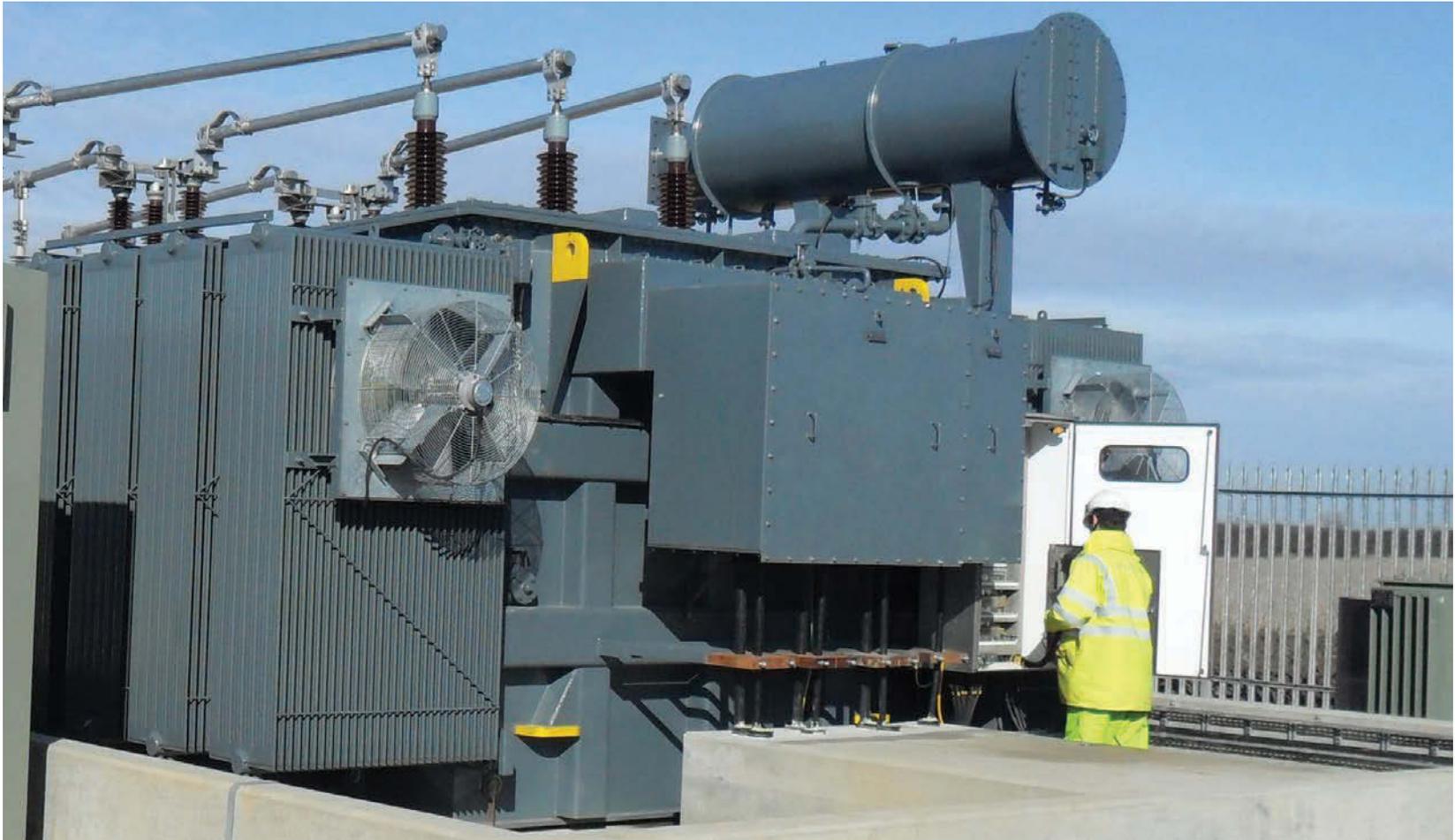


winder power  
power & distribution transformers



# Contents

Overview	4 - 5
Power transformers	6 - 7
Distribution transformers	8 - 9
Ecotran	10 - 11
Cast resin transformers	12 - 13
Factory refurbishment	14 - 15
On-site refurbishment	16 - 17
Transformer test	18 - 19
Substation services	20 - 21
Exports	22 - 23



# Overview

**Winder Power specialises in the design, build, deployment and management of power transformers and distribution transformers up to 60MVA.**

With a history dating back to 1898, all Winder Power products continue to be designed, hand wound and assembled at the company's 80,000 square foot factory in Leeds.

Winder serves a wide range of customers in the utilities, renewable energy, and industrial sectors across the UK and internationally.

Winder Power can offer custom designed transformers to suit specific applications. All works are completed in accordance with ISO9001 accreditation and come complete with an appropriate guarantee.



[www.winderpower.co.uk](http://www.winderpower.co.uk)

# Power transformers

**Winder Power specialise in designing and manufacturing power transformers up to a rating of 60MVA. We have term contracts with the major network operators in the United Kingdom for 33/11kV primary power transformers.**

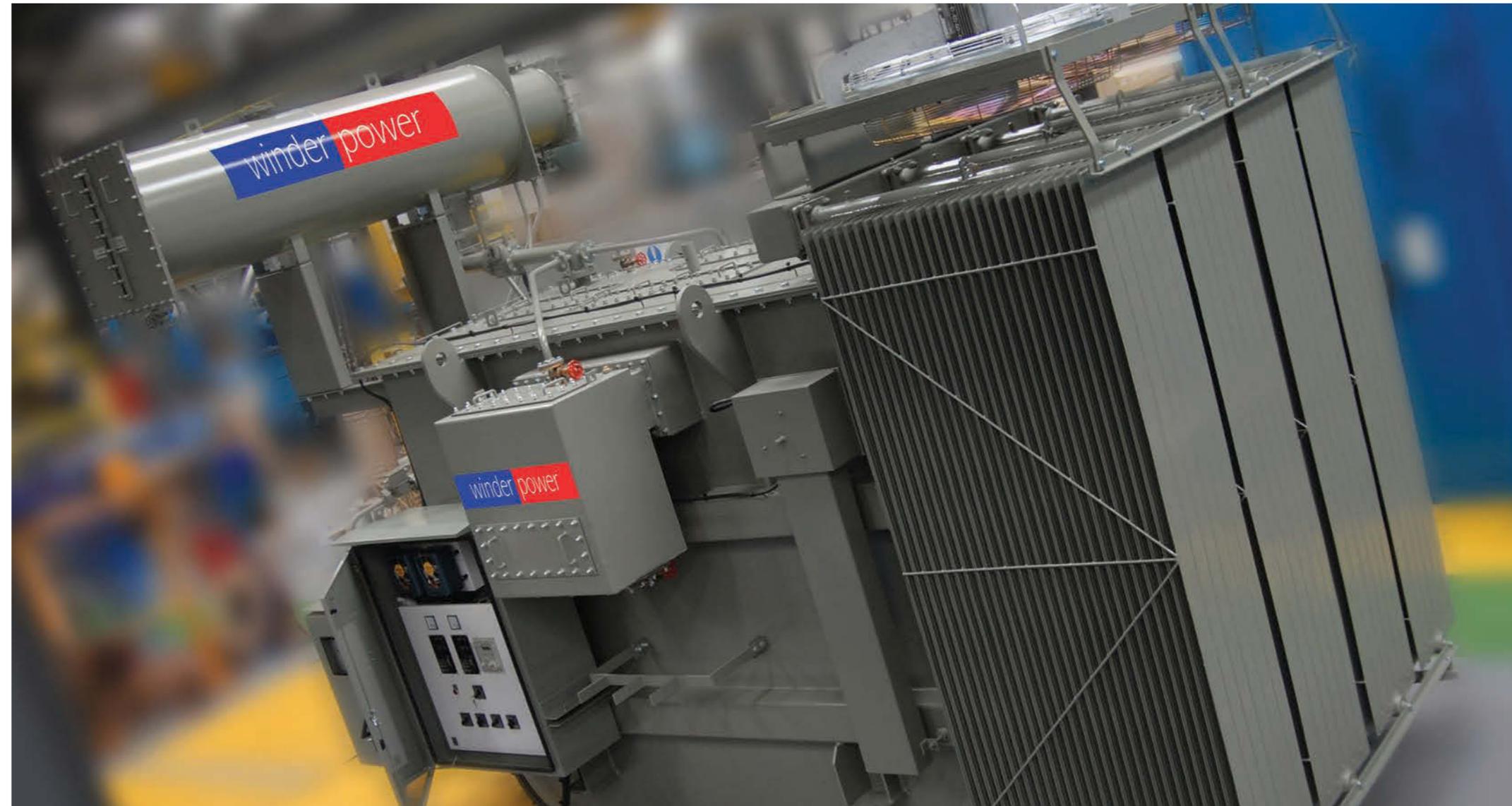
We have designed and manufactured over one hundred of these power transformers in the past few years. They are in service from the Orkney Islands off the north coast of Scotland to the south of England.

Winder Power's Leeds-built power transformers are distributing electricity to approximately 500,000 homes and businesses throughout the United Kingdom.

In addition Winder's Power transformers are distributing power in some of the largest petro-chemical and industrial plants in the United Kingdom and the Middle-East.

Winder Power transformers also connect several substation renewable energy schemes, such as wind farms, supplying the country's energy needs.

[www.winderpower.co.uk](http://www.winderpower.co.uk)



## Distribution transformers

**Winder Power designs and manufactures a range of distribution transformers, complying with the requirements of ESI 35-1 and BSEN60076 as applicable.**

Distribution transformers supply electricity to around 800 homes and small businesses and are typically rated at around 1,000 kVA. Distribution transformers of this size can also be used in a range of specialist industrial applications.

The high voltage flanges of our distribution transformers are suitable for direct coupling to ring main units, fuse switches or oil switches, and the low voltage flanges are suitable for direct coupling to distribution pillars to form a complete substation. Cable boxes can be provided for either air or compound filled terminations.

At Winder Power we can supply our distribution transformers as part of a complete containerised substation with fuses on the low voltage side of the distribution transformer and a circuit breaker or ring main unit on the high voltage side of the distribution transformer.

[www.winderpower.co.uk](http://www.winderpower.co.uk)

# Ecotran

**The European Union has established a framework for setting Ecodesign requirements for energy-related products (Directive 2009/125/EC). The main target is a 20% improvement in the EU's energy efficiency.**

In 2008 it was estimated that transformer losses amounted to 93.4TWh per year. In contrast, by 2025 the savings in losses has been estimated at 16.2TWh per year by using Ecodesign transformers. This equates to a CO<sub>2</sub> emissions saving of 3.7Mt.

In order to comply with the requirements of the Ecodesign Directive, Winder Power has developed a range of innovative transformer designs in Ecotran that do not unduly increase the selling price of low loss transformers.

The main advantage to the customer is that their power consumption will be reduced providing cost savings and an improvement in CO<sub>2</sub> emissions. The Ecotran transformer range will also have much lower noise levels due to the reduced flux density in the core.

**ecotran**  
eco-design compliant

[www.winderpower.co.uk](http://www.winderpower.co.uk)



## Cast resin transformers

**Winder Power manufactures a range of air-cooled, cast resin transformers, with or without enclosures, which are particularly suitable for use at high temperature and in tunnelling applications.**

All transformers are produced in accordance with IEC 60076-11 standards, and in particular they meet requirements for climatic (C2), environmental (E2) and fire (F1) classes.

The standard offer covers distribution cast resin transformers from 50kVA up to 3150kVA, insulation class up to 36kV with standard or reduced losses (IEC 60076-11).

Our design and construction capacity can satisfy many diverse needs and applications, such as autotransformers, reactors and earthing transformers, transformers for 6-12-18-24-36 pulse rectifier, HV-HV transformers and LV-LV transformers, three-single phase transformers, triple windings transformers, and applications for traction and for testing rooms.

[www.winderpower.co.uk](http://www.winderpower.co.uk)

# Factory refurbishment

**At Winder Power we understand the drivers of our customers and what lies behind their asset management plans.**

We understand the need to extend asset lives through refurbishing existing assets especially with regard to power transformers. We offer a unique, 12 stage power transformer refurbishment service in our modern, state-of-the-art factory in the heart of the UK, which is ideal for assets that can be taken offline whilst any work is undertaken.

Bringing the transformer back to our factory allows us to offer a complete overhaul, including detanking, drying, shot blasting and painting. We can also upgrade bushings and tap changers if required. Most importantly we can then run a complete set of tests using our in-house testing facility.

[www.winderpower.co.uk](http://www.winderpower.co.uk)



# On-site refurbishment

Not every organisation is able to take its assets offline even for the time taken to perform a refurbishment, and if minimal outage and disruption is a key consideration then Winder Power can provide an effective on-site refurbishment programme.

This service is ideal in situations where the transformer is fundamentally in good condition, but some of the ancillary items may require servicing and upgrading.

Typically this would include processes such as cooler bank replacements, re-gasketing units, and painting the exterior of the transformer. The unit would then be tested on-site and recommissioned.



# Transformer test

**Winder Power can offer routine and Type Testing on all transformers. Transformer testing is undertaken at our Leeds base in our recently upgraded testing facility.**

Winder Power has a long history of Type Testing transformers. Impulse tests, temperature rise tests and short circuit tests have all been carried out on a range of distribution and power transformers from 500kVA to 55MVA.

[www.winderpower.co.uk](http://www.winderpower.co.uk)



## Substation services

**Winder Power is much more than a world-class designer and manufacturer of power transformers.**

The company's reputation has been founded just as much on the exceptional levels of added value transformer services it offers to its customers.

Working with its customers every step of the way, Winder Power's engineering and installation teams are well versed in the whole process, from product design and manufacturing through to installation and ongoing maintenance contracts.

Key services provided include installation, cabling, upgrades, servicing, painting and testing. Testing is conducted at our recently upgraded transformer testing facility in Leeds.

[www.winderpower.co.uk](http://www.winderpower.co.uk)

# Exports

**Exports count for around 20% of Winder Power's services and products. The company can respond quickly to any requirements right across the globe.**

Whether it is commissioning a distribution transformer in Azerbaijan or supplying a power transformer to Singapore, Winder Power has the export capability to deliver a world-class product and service.

Our team is highly experienced in arranging transportation, and can help with installation and commissioning at the final destination.

Recent projects include supplying and installing transformers for oil companies in the Middle East as well as for the Maggotty Hydro scheme in Jamaica.

[www.winderpower.co.uk](http://www.winderpower.co.uk)



# winder power

power & distribution transformers

**Winder Power Limited**  
Grangefield House, Richardshaw Road  
Pudsey, Leeds LS28 6QS  
United Kingdom

+44 (0)1132 555 666  
sales@winder.co.uk

www.winderpower.co.uk



concom



BRITISH  
SAFETY  
COUNCIL



Proud member of  
the  
chamber  
Leeds, York and North Yorkshire

