# **INTERNATIONAL CASE STUDIES:**

# **POWER TRANSFORMERS**

For more than 80 years Wilson Transformer Company (WTC) has been designing and building superior transformer products and providing life-time management services. We are committed to support our local and global customers by delivering the most reliable and high quality products that meet our customers' requirements.



## **GLOBAL PRESENCE**

Today, WTC is the largest Australian-owned and based manufacturer of power and distribution transformers, operating two manufacturing facilities in Australia. WTC also operates offices in New Zealand, Singapore and the United Kingdom, subsidiaries in the United States of America and Australia, as well as joint ventures in Malaysia and Saudi Arabia.

**Dynamic Ratings**, a wholly owned subsidiary of WTC, is a world leader in providing monitoring, control and communication solutions for electrical power apparatus.

**TTJ|H2b Analytical Services Pty Ltd**, a joint venture between WTC and TJ|H2b Analytical Services Inc., USA, is the NATA certified laboratory that specialises in providing diagnostic testing and condition monitoring services for high voltage equipment.

**EWT Transformer Sdn Bhd** is a joint venture company whose principle shareholders are a Malaysian Bumiputra Company, Wira Digital Sdn Bhd and WTC.

**Utec (United Transformers Electric Company)**, a joint venture between Bawan in Saudi Arabia and WTC, has the engineering and technical capability to produce any custom made distribution transformer as per customer's requirement.

**GridON** has partnered with WTC, a shareholder and engineering and manufacturing partner, to bring its novel, world-class portfolio of Fault Current Limiters (FCLs) to the market. We have delivered proven, fully tested commercial FCL, scalable to extra high voltage ratings.

# **CASE STUDY 1: Euro Tunnel, the UK**

**Client:** Euro Tunnel

**Product:** 1 x 100MVA 132/45kV power transformer

#### **Project description:**

The Channel Tunnel is the longest undersea tunnel in the world. The section under the sea is 38km long. The three tunnels, each 50km long, were bored at an average 40m below the sea bed, and link Folkestone in Kent to Coquelles in Pas-de-Calais.

Electrical power supplying the tunnels, drainage pumps, lighting and the trains, is provided by substations on each side of the Channel. In the event of loss of power from one side, the entire system can be supplied from the other side. Wilson Transformer Company has supplied the trackside transformer on the United Kingdom side of the tunnel.



# CASE STUDY 2: Clyde Wind Farm, the UK

**Client:** Scottish Power

**Product:** 6 x 120MVA 275/33kV power transformers

## **Project description:**

The Clyde North and Clyde South wind farm is a very remote site with difficult access and subject to extreme weather conditions. The 4 units to Clyde North and 2 units to Clyde South proved to be very challenging, but with careful planning and execution of controls measures, the 6 transformers were installed successfully and have been operating ever since. The 720MVA wind farm was the largest land based renewable project in Europe at the time.



## CASE STUDY 3: Indonesia

Client: PT Inco Indonesia

Product: 1 x 95MVA 33kV furnace transformer

#### **Project description:**

PT Inco produces nickel in matte, an intermediate product, from lateritic ores at PT INCO integrated mining and processing facilities near Sorowako on the island of Sulawesi. Wilson Transformer Company provided a furnace transformer with an innovative design that eliminated a large quantity of joints on the core & coil assembly, subsequently making the product more reliable.



## CASE STUDY 4: Hi-Tech park, Malaysia

Client: NUR/EWT Malaysia

**Product:** 1 x 90MVA 132/33kV power transformer

#### **Project description:**

KHTP opened in 1996 and became Malaysia's first high-tech industrial park. It was key component in the nation's plan to be fully industrialised by 2020. Today, KHTP is a fully-integrated and comprehensive science park that hosts multinational and local companies within the hi-tech sectors: The park is operated by Kulim Technology Park Corporation Sdn Bhd, subsidiary of the Kedah State Development Corporation.



## **CASE STUDY 5: Olympic Games, the UK**

**Client:** UK Power Networks

**Product:** 3 x 66.6MVA 132/11-11kV power transformers

### **Project description:**

For both Olympic games, in Australia and the United Kingdom, Olympic park complexes were built which included a new substation. Wilson Transformer Company supplied all the transformers for these sites where the Olympics were held in 2000 and 2012 respectively.

# WILSON TRANSFORMER COMPANY PTY LTD

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