



Service Lifecycle Solutions for Complex Technologies

Repair, Parts & Manufacturing Solutions

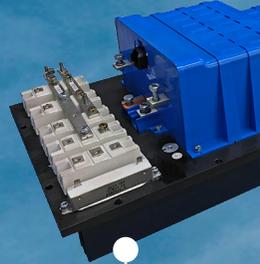
Electronic & Electromechanical Components

PARTS & COMPONENTS

Power Conversion Systems
IGBT Racks & Converters
Processors & Modules
Pitch Control Systems
Sensors & Drivers
Power Supplies
Control Panels
Fiber Optic Ports



Have a Strategy When Failure Strikes



DEX's best-in-class Repair, Parts and Manufacturing Solutions are not only designed to improve the performance of your wind turbines – they are optimized to extend the life of your components while reducing overall costs.

STRATEGIES

As the Renewable Energy industry continues to mature, more and more wind turbines are falling out of their manufacturers' warranty period. Numerous owners and operators throughout the United States and Europe have already had various parts within their wind turbines become obsolete. Taking a proactive approach before failure occurs will help to minimize downtime. When no support documentation is available and there are limited options on how to proceed, many companies are turning to DEX to provide an efficient, cost effective solution. The DEX strategy reduces overall costs and can extend Mean Time Between Failures (MTBF).

REPAIR

The DEX Repair solution significantly reduces replacement costs by as much as 70% through repairing defective electronic and electromechanical components versus purchasing new. Our streamlined repair process ensures quick 10 day turnaround times with typical repair cycles.

Additionally, minimize lost revenue through the DEX Advanced Exchange program designed to ensure replacement parts are shipped directly to wind farms. Each wind farm then reuses the packaging to return non-working components for repair. After repair, products are returned to finished goods inventory and can then be shipped from inventory within 24 to 48 hours.





PARTIAL COMPONENTS LIST

DC-Input & DC-Output

IGBT Racks

IGBT Converters

Wind Sensors

RCC Processors

Watch Dogs

Intelligent I/O

Control Units

Thyristor Drivers

Thyristors

Rack 9-Modules

Fiber Optic Ports

Anemometer Micros

Measuring Modules

Ultrasonic Sensors

Voltage Inverters

Wind Vanes

Power Supplies

Control Panels

PARTS

The DEX Parts solution provides access to a worldwide sourcing network and rapid fulfillment of screened, tested, certified and warrantied replacement parts. DEX is a trusted, open-market supplier who can improve lead times and agility by leveraging 35+ years of experience in sourcing quality hard-to-find or out-of-production parts.

MANUFACTURING

The DEX Manufacturing solution provides design upgrades and innovative, manufactured alternatives for irreparable components through state-of-the-art design techniques, standards-based processes, and extensive analysis tools. We adhere to lean manufacturing practices to reduce cycle times and waste.

BENEFITS

- Best-in-class repair services performed by A+ certified industrial electronic technicians and supporting numerous Fortune 500 companies
- Highly efficient, triple ISO-certified US and European repair facilities utilizing best practices for product optimization, data capture, and improved documentation
- Vendor and asset management strategies to control costs, drive service excellence and mitigate risks



Over 53% of all wind turbine malfunctions are due to failures within the control electronics, electrical systems and sensors



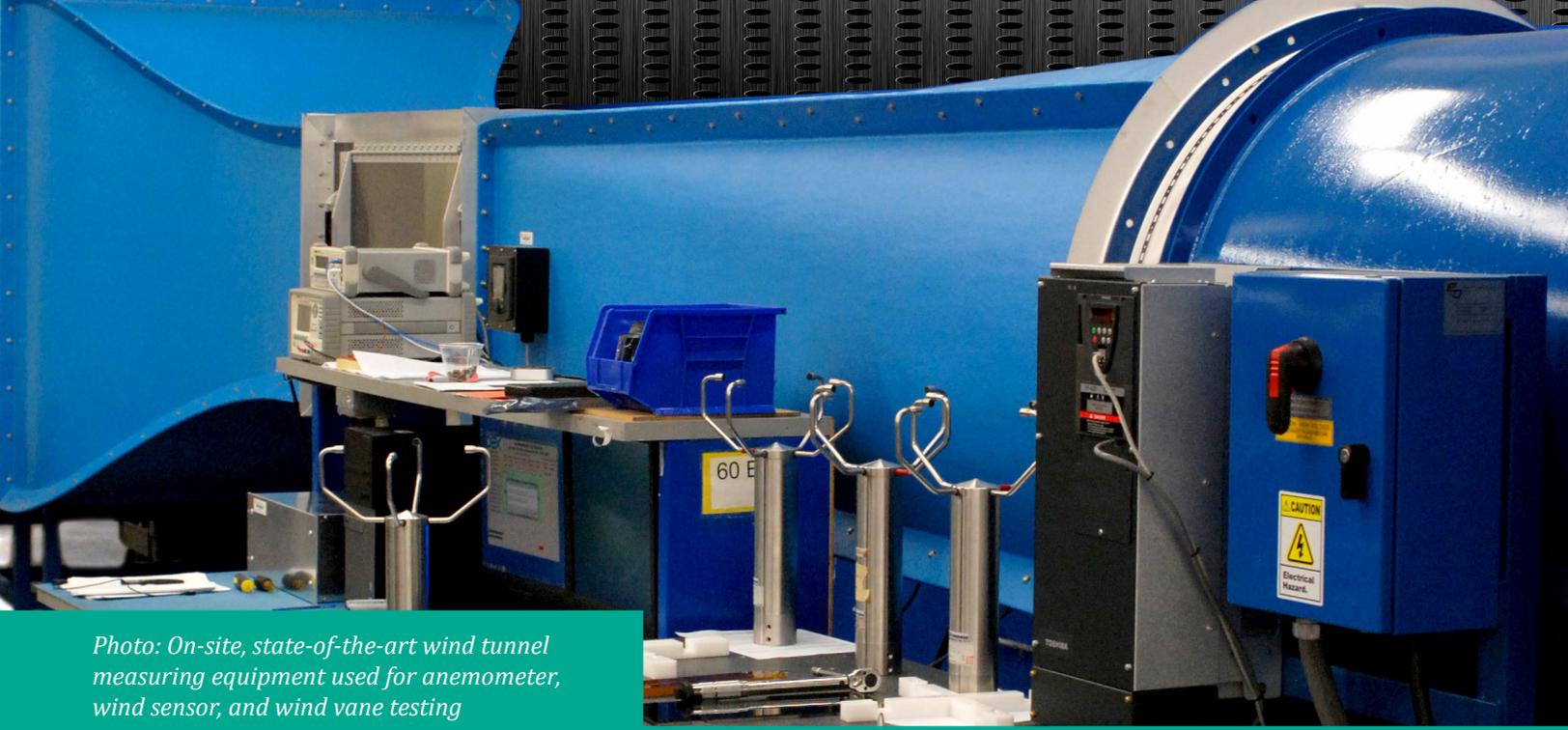
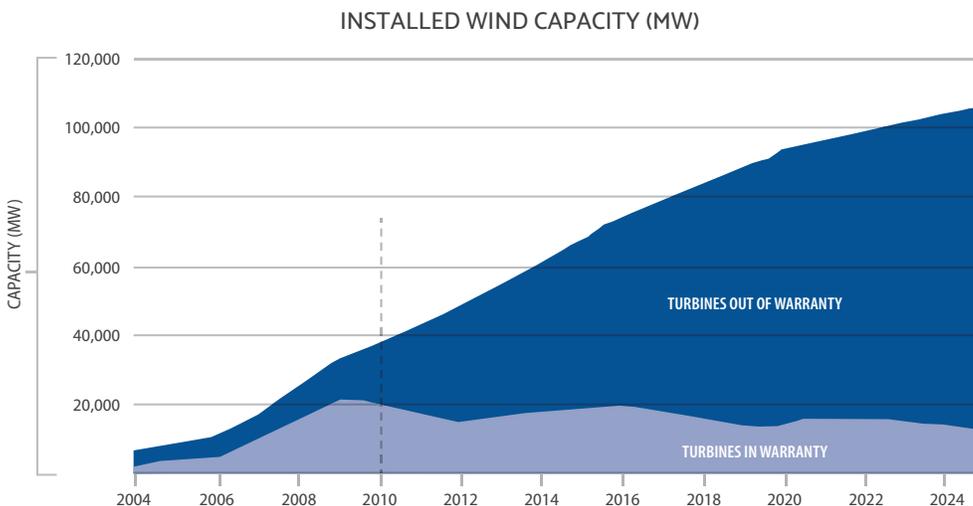


Photo: On-site, state-of-the-art wind tunnel measuring equipment used for anemometer, wind sensor, and wind vane testing

Repair and manufacturing solutions or more cost effective options needed when parts are unavailable? Shrinking cycle times that require improved agility? Shortened lead times for hard-to-find or obsolete parts and components? DEX provides options to keep your fleet up and running.

- 35+ years of experience in providing outsourced solutions for hi-tech electronics and complex technologies across numerous sectors
- Electrical, electromechanical and technological manufacturing and engineering core competencies
- Service solutions designed and executed with foundations of engineering, systems and process infrastructures



Wind turbines coming out of warranty over the next few years

DEX U.S. Headquarters

3600 Via Pescador
 Camarillo, California 93012
 Toll Free: 888.678.9201
 Direct: 805.388.1711
 Sales: 888.678.9208

DEX Europe Headquarters

IDA Business Technology Park
 Clonshaugh, Dublin 17, Ireland
 Direct: +353.1.848.6555

renewables@dex.com
 www.dex.com/renewables

