

Elliot Connell, UK Sales Manager Renewable Parts

Building the Circular Economy Supply Chain

Steps to Net Zero for Business



Building the circular economy supply chain



About Renewable Parts

- Operations Hub in Renfrew & Innovation Centre in Lochgilphead
- Over 10 years of experience in supply chain management and expertise across major turbine brands including Vestas, Siemens, Nordex, and Enercon

136,000

Items travel through our supply chain annually

Of material diverted away from landfill and scrap

125t

365tco²eq
Of carbon emissions
reduced since 2019

2600+
Turbines are currently

supported across our global supply chain





The uncomfortable truth





The wind industry is a green energy source, but the aftermarket remains largely non-green



Linear procurement practices remain deeply ingrained for minor parts

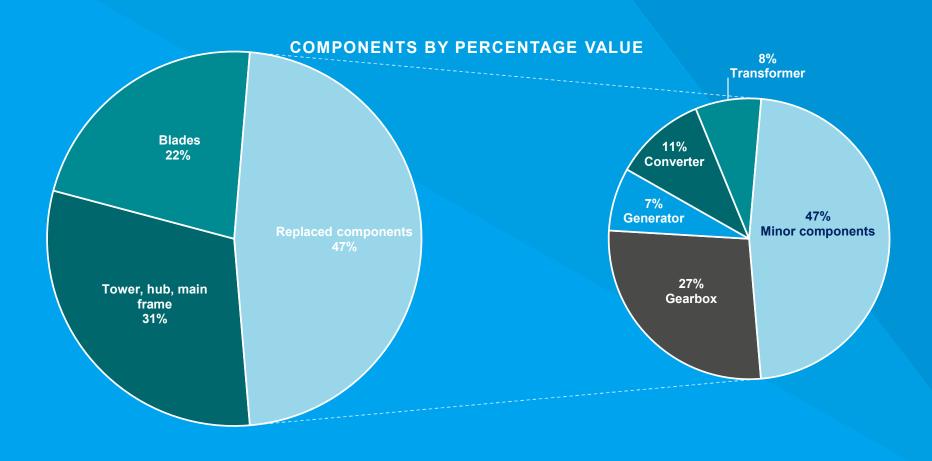


The opportunity to embed greater sustainability within the aftermarket has substantial benefits



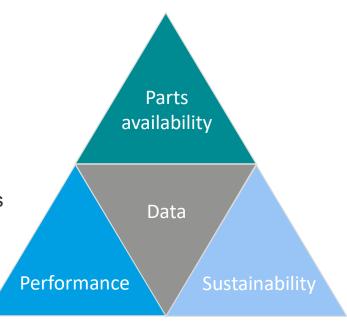
But this requires a complete change of culture and a willingness to invest in circular economy technology

Developing sustainable parts solutions



Value model for parts reuse

- Our commitment to net zero created major impetus to become more sustainable; the application of parts reuse is entirely consistent with this vision
- But to make parts reuse the default option for operators several factors must be addressed
- Parts availability must be sufficient to make it operationally expedient and scalable
- The sustainability benefits of reuse must be tangible and monetarised, is this about cheaper parts or lower aggregate cost
- And perceptions around performance and technical rigour must be overcome. And with modern technology enhanced performance is possible



But it all starts with data, both operational, technical and design –
 we need cooperation to move faster



The enablers

PAPERWORK

Parts will require certification paperwork, historical records and workscope definition

TECHNOLOGY

Investment in technology to increase salvage rates and techniques to enhance performance

FACILITIES

The investment in facilities capable of scale up to meet future operational demands

OPERATIONAL DATA

Understanding parts failure rates, disruption and costs is central to prioritising investment

REVERSE LOGISTICS

Supplying parts is onto time to operation is the overriding priority but remanufacture requires speedy the return of unserviceable parts

SKILLS

Remanufacture skills are new and in short supply, creating a pool of talent focused on parts reuse and redesign

R&D / TESTING

Development of new solutions will require rig testing and inservice pilots

LOCAL ECONOMY

SUSTAINABILITY

Investment in businesses, towns, and cities local to the business



Conclusions

- The opportunity to develop a "reuse" parts industry within Scotland is enormous and poised to be developed
- The transition has begun with significant progress over the last three years; CWIC will accelerate an industry wide move towards parts reuse
- Scale-up will require major investment in technology, skills and infrastructure, across multiple businesses
- There are successful precedent models to work from, but strong collaboration across industry, academia and government will be key to success
- We are only limited by our ambition and imagination; we must be bold and take a long-term view to realise the potential

