

## Questionnaire for companies involved in the circular economy of electrical machines

**Aim:** To understand the state of remanufacturing and reuse of electrical machine in the UK supply chain

### Description of company:

Name of company [Click or tap here to enter text.](#)  
 Location [Click or tap here to enter text.](#)  
 Size (no. of employees) [Click or tap here to enter text.](#)  
 Contact email [Click or tap here to enter text.](#)

1. Which of these are applicable scenarios for manufacturing electrical motors/components in your organisation?

Sector/Rating	Up to 100 kW	100-500 kW	500 kW – 1 MW	Larger than 1 MW
Aerospace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automotive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off-road vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sector/Volume	Less than 10 machines/month	11-50 machines/month	51-100 machines/month	More than 100 machines/month
Aerospace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automotive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off-road vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. What type of motors are processed in your business?

- ☐ Permanent magnet
 ☐ Squirrel Cage Induction  
☐ Switched Reluctance
 ☐ Synchronous Reluctance  
☐ Other, please specify: [Click or tap here to enter text.](#)

3. In terms of repair and/or replacement of motors, which components do you remanufacture/ recycle etc?

Component	Recycle	Remanufacture/ Refurbish	Reuse/ Redistribute	Maintain/ Prolong	Scrap
Coils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Laminations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housings/casings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power electronics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auxiliaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

4. In relation to your answers to number 3, what methods do you use to remanufacture/recycle etc?  
Do you use manual or automated processes?

Component	Manual	Automated	Process
Coils	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Magnets	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Laminations	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Housings/casings	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Power electronics	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Auxiliaries	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Other, please specify:	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.

5. Do you currently employ digital solutions in your business, or would you be interested to employ in the future if it could aid in the reuse of electrical machine components?

If yes then, please tick the appropriate technologies:

Technology	Yes, currently employed	Yes, in the process of being implemented	No, but interested in employing in the future	No, not interested in employing in the future
Sensors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data from sensors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Machine learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computer vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Simulation & Digital twin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Robotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additive Manufacturing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Do you have any other comments about the circular economy of electrical machines?

Are there barriers to your company getting involved in CE activities?

Do you have any issues/worries about getting involved with CE activities for electrical machines?

Thank you very much for your time in completing this survey.