Circular Economy & Energy
Funding Projects to Make Assets Last Longer

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About Zero Waste Scotland

Aim

Our goal is to help Scotland realise the economic, environmental and social benefits of making best use of the world’s limited natural resources.

We’re funded to support delivery of the Scottish Government’s circular economy strategy, *Making Things Last*. We receive additional funding to support the EU’s 2020 growth strategy.
From This
To This

Source: http://www.evolo.us/competition/noah-oasis-rig-to-vertical-bio-habitat
Or More Likely This
### The link to the Energy Sector?

Share of renewable energy in Scotland

<table>
<thead>
<tr>
<th>Sector</th>
<th>Today</th>
<th>?2030?</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Energy</td>
<td>15.2%</td>
<td>50%</td>
</tr>
<tr>
<td>Electricity</td>
<td>53.8%</td>
<td>100%</td>
</tr>
<tr>
<td>Heat</td>
<td>5.3%</td>
<td>50%</td>
</tr>
<tr>
<td>Transport</td>
<td>3.1%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Scottish Government, 2017
Scottish Energy Strategy

Today

Wind
Other Renewables
Fossil-Based

Source: Scottish Government, 2017
Scottish Energy Strategy

Source: Scottish Government, 2017
So where does CE come in?
So where does CE come in?

![Bar chart showing the share of O&M in the total LCOE of wind power in seven countries. Source: IRENA, 2017](image-url)
So where does CE come in?
CE Opportunities

General energy examples

• Reuse (with remanufacturing) for same purpose

• Repurposing of assets or material streams

• Better design, usage, monitoring, maintenance and component remanufacture (w/ retained ownership, “servitisation”)
CE in the energy sector

Wind turbine component remanufacture

• Half the cost of new components
• Lets older sites operate longer
• Partially avoids OEM lock-in

Source: Bonfiglioli, 2017
CE in the energy sector

Avoiding new capacity through DR

- Allows better use of existing assets
- Saves end-customers money
- Avoids need for new gen. capacity

Source: SparksDirect, 2017
CE in the energy sector

National Grid’s Material Reuse

• 100% reuse/recycling by 2020

• T&D cabling re-processing

• Old cable material to new cables

Source: Wall Street Journal
ZWS Direct CE Support

• **Circular Economy Business Support Service**
  – Up to 30 days free business development support for SMEs & consortia; technical & commercial viability, route-to-market etc.

• **Circular Economy Investment Fund**
  – £50,000 to £1,000,000 for transformational projects; commercialisation/trial CE projects for SMEs & consortia
  – £18 million pound fund available
  – www.zerowastescotland.org.uk/circular-economy/investment-fund
ZWS CE Funding for Energy

Overview

- Currently open

- Closes 4th December 2017 (application deadline)

- Looking at funding commercialisation/CE trial project opportunities across the energy sector
Contact

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