

# Highlands & Islands Woodfuel Development Programme

Rebecca Carr

Woodfuel Project Officer

Thursday, 08 December 2005

- Aims & Objectives
- Developing woodfuel clusters
- Lessons learned



## Aims & Objectives

- information, advice and support
- develop 6 woodfuel clusters across the Highlands & Islands
  - capital grants of up to 50% for woodfuel suppliers for chippers, storage facilities, handling equipment, etc.
  - capital grants of up to 50% for small - medium sized enterprises for woodfuel boilers, hoppers, etc.



PROJECT PART-FINANCED  
BY THE EUROPEAN UNION

Europe and Scotland  
Making it **work together**

SCALE	LOGISITICS	FUEL QUALITY
large, > 1MW	<ul style="list-style-type: none"> <li>• '000s tonnes</li> <li>• bulk delivery</li> </ul>	low grade, wet chips pellets (co-firing)
<b>local, small-medium scale</b>	<ul style="list-style-type: none"> <li>• <b>100s tonnes</b></li> <li>• <b>variable storage facilities / delivery</b></li> </ul>	<b>variable chips / pellets</b>
domestic	<ul style="list-style-type: none"> <li>• ~10 tonnes</li> <li>• delivery network / retail outlets</li> </ul>	high grade pellets / logs

## Funding awarded to 5 clusters

### ⊕ Supply

- Sawmills: E G Johnstone & Co, Russwood, Raddery Sawmill
- Forestry Contractors: Richard Livett
- Estates: Dunlossit Estate

### ⊕ Use

- Sawmill: Russwood
- Estates: Dunlossit Estate
- Accommodation: Main House Care Home, The Boat Hotel

### ⊕ Clusters in development

- Mull, Wester Ross, Lorn, Lochaber

## SUPPLY INFRASTRUCTURE

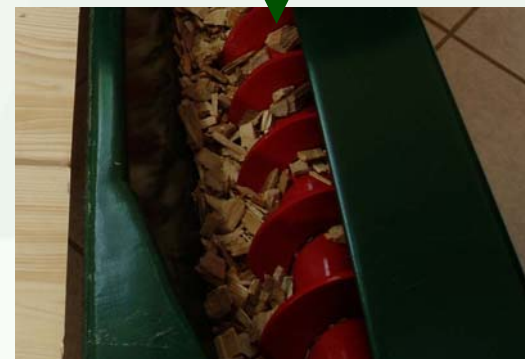


**Woodfuel supply**

## CUSTOMER AWARENESS



**Project design & installation**



**Service & maintenance**

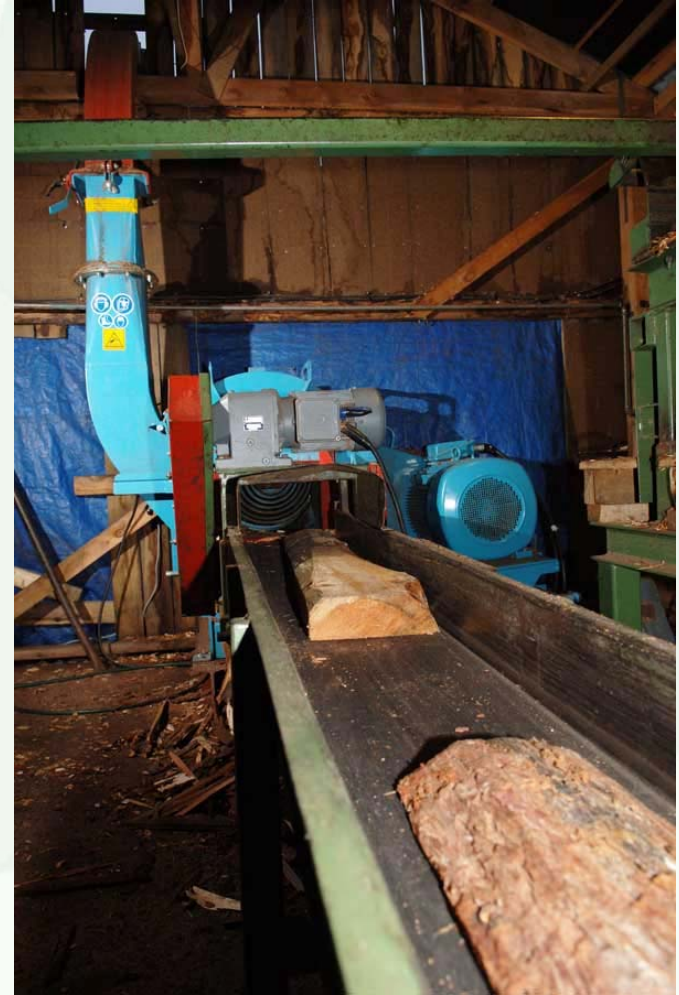
## Pricing



**Quality control**



**Logistics & distribution**





Woodfuel bagging -  
Russwood



Heizohack chipper - Raddery Sawmill



Bag delivery - Mid-Argyll  
Swimming Pool





Tipping delivery



## SCOPING PROJECT

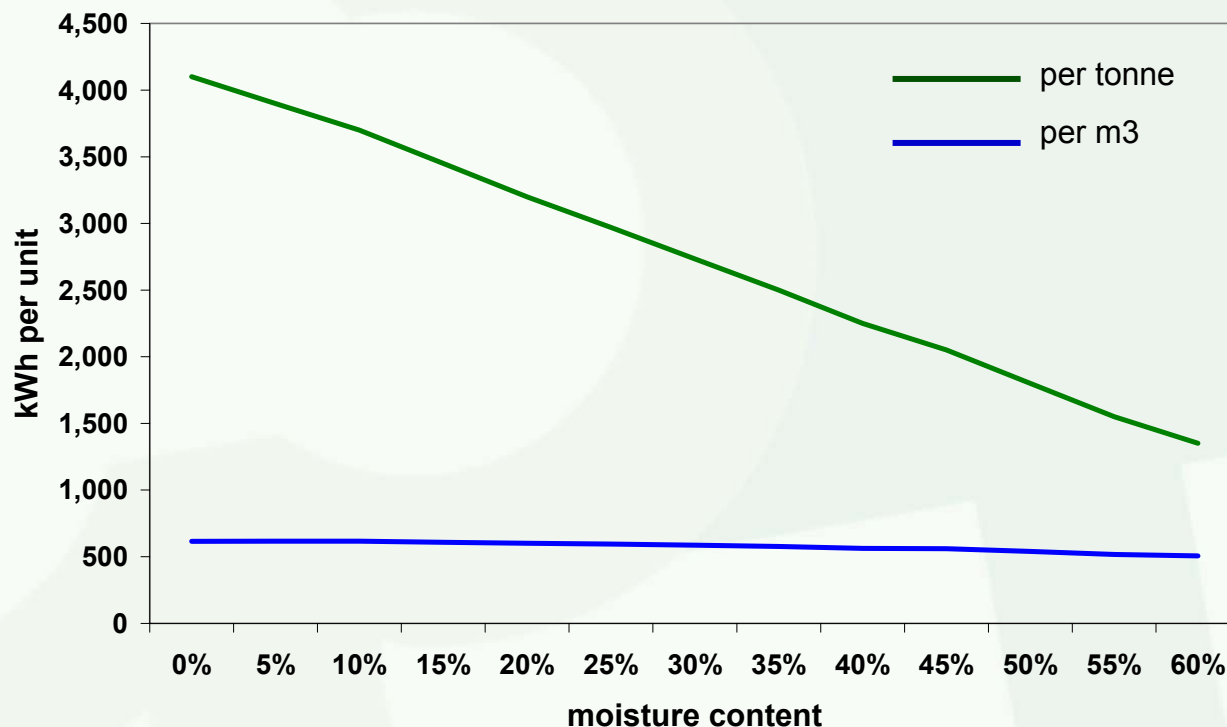
- Project design
  - Carbon Trust Design Advice
  - Scottish Energy Efficiency Office Energy Survey
- Identify woodfuel supply
- Identify funding
  - Highlands & Islands Woodfuel Development Programme
  - Loan Action Scotland
  - Enhanced Capital Allowances

## Mains House Care Home, Newtonmore



## Price structure

- cost per tonne - must know moisture content
- cost per m<sup>3</sup> - smaller variability in price due to moisture content



# Woodfuel Clusters in the Highlands & Islands

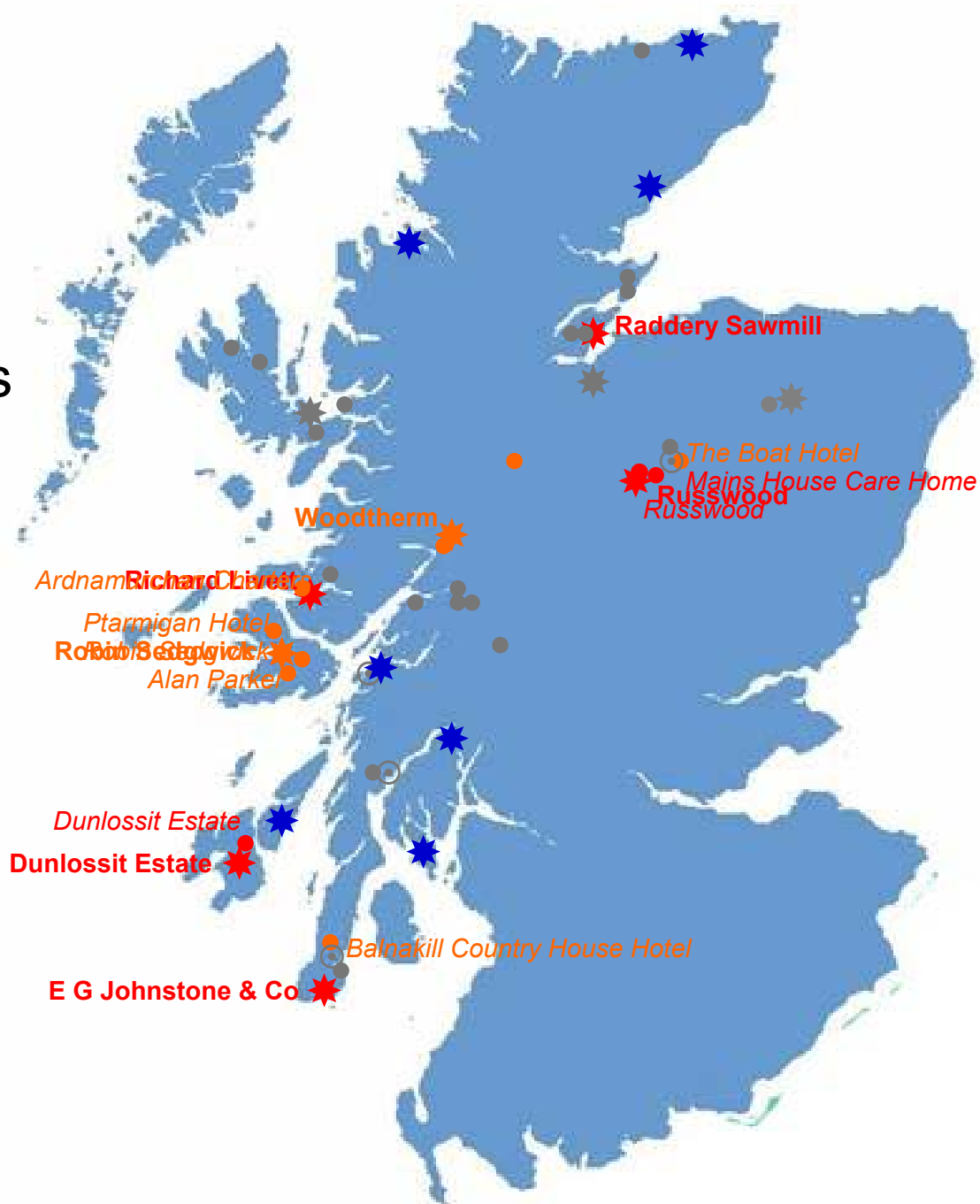
## - Local Woodfuel Markets

● wood chip boiler

⊙ district heating scheme

★ wood chip suppliers

★ CHP / Power



- **Suppliers**

## Lessons learned

- ⊕ no one-size fits all model
- ⊕ level of capital investment appropriate to market
- ⊕ appropriate equipment to ensure quality and efficiency of supply

## Barriers

- ⊕ level of demand - market development
- ⊕ capital investment
- ⊕ woodfuel price

- Customers

Lessons learned

- ⊕ awareness raising
- ⊕ choosing the right project
- ⊕ project design is crucial

Barriers

- ⊕ capital costs
- ⊕ confidence in the supply chain

## FCS Woodfuel Project Officers

Highlands & Islands: Rebecca Carr  
[rebecca.carr@forestry.gsi.gov.uk](mailto:rebecca.carr@forestry.gsi.gov.uk)

East of Scotland: Dan Gates  
[dan.gates@forestry.gsi.gov.uk](mailto:dan.gates@forestry.gsi.gov.uk)

Central Scotland: Trevor Blackburn  
[trevor.blackburn@forestry.gsi.gov.uk](mailto:trevor.blackburn@forestry.gsi.gov.uk)