

# BALCAS

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the natural answer to a burning issue



BALCAS

## *brites*

- Made from virgin wood with no contaminants, additives or bark
- Wood fibre is dried, hammered, and pushed through an extrusion mill
- Lignin acts as a binder
- High density (650kg.m<sup>3</sup>)
- High Energy (4.8MWh/t)
- Energy used in pellet production is from a wood fuelled CHP i.e. renewable

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## The Barriers

- Awareness of the alternatives
- Fearful of Change
- Capital Required
- Pellet fuel availability and price stability

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## First Steps

### Awareness raising / education

- speaking engagements
- seminars
- exhibitions
- media
- promotional material

### Equipment supplier growth

- Celtic Flame and Solar Energy Ireland
- currently 22 on Balcas web site

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## >70 non domestic projects currently being developed

- Hotels
- Office buildings
- Local authority buildings
- Poultry industry
- Hospitals
- Mushroom industry
- Leisure ctrs
- Tourist ctrs
- Food industry
- Farming
- The MOD
- Feed mills
- Distilling & Brewing industries.

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### The future - commercial

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### Case studies

Domestic Central Heating  
 Was using 2,500Ltr oil  
 Cost was £875/yr  
 Now using 5t pellets  
 Pellet cost is £540/yr  
 Saving = £335/yr  
 Carbon saving = 7t/yr

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### Case studies

Mini DHS  
 Heating a Georgian home, a holiday home and an office block  
 One 30kW boiler for all three buildings instead of three 25kW boilers

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### Case studies

Nursing Home  
 100kW Energy Cabin  
 Displacing 45,000Ltr of oil  
 Saving £9,500/yr (circa 50%)  
 Saving 100t CO<sub>2</sub>/yr

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### Case studies

School  
 300kW Boiler  
 Displacement of 72,000Ltr of oil  
 Savings = £31,000  
 That will pay for approximately one teacher's salary  
 CO<sub>2</sub> savings = 482t/yr

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### Case studies

Manor House Hotel  
 500kW Binder boiler  
 Displacing 371,000Ltr oil /yr  
 Saving £68,000/yr  
 Saving almost 900t CO<sub>2</sub>/yr  
 Payback is 1.77 years

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## Case studies



Hospital  
5MW steam boiler  
Displacing 4,500,000Ltr of oil  
Saving over £800,000/yr  
That would pay for 30 nurses salaries  
CO<sub>2</sub> saving = 10,000t

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## Delivery & Storage

- Bagged
  - 10kg bags, Fisker bagging machine
  - Contract baggers
- 1t Sacks
- Tipped
  - Controlled and uncontrolled
- Loose bulk blown
  - 200 customers to date
  - Coupling
  - Silo; Floor angle, Electrical fittings, pipe bends, distance etc

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## Delivery and Storage



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## Early experiences

### Contract blown deliveries

- pressure
- customer care
- reliability
- cross contamination
- cost

### Contract bagging

- cross contamination
- cost
- dust / fines

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## Pellet Quality



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## Bags

### Fisker bagging plant

#### 10 kg bags

- size and shape

#### Capacity

- Bagging plant: 18t/hr

#### Irish demand

#### Export potential

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## Downstream

Commercial: Reduction in Energy Costs



Job Creation/Security in transport, retail and equipment



Fuel Poverty: Alternative to Fossil Fuel



Helping the LOCAL Economy/Environment

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## Next Steps

- Scottish Pellet production, Invergordon
- Pellets made in Ireland will stay in Ireland
- Other developments

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## Peter Kernohan

Questions:  
Now or at your convenience.

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