

# Old Sleningford Farm

Estate woodland key to heating 'hub' of wood fuel excellence



The Old Sleningford Farm development, which forms part of the Lindrick & Sleningford Estate is using its 600 acres of Forestry to fuel its conversion to wood heating. The estate's woodland is a broad mix of hard and softwood species, planted in the 1930's and 50's. Management focuses on normal silvicultural practice, with the thinnings and arisings being utilised by the estate's various wood heating installations.

Home to a series of excellent, varied heating examples from modern efficient wood burning cookers, log boilers, and conventional wood stoves, the estate and Old Sleningford Farm show what is obtainable with wood.

## objectives

- To reduce the heating costs of owner and tenants of the Lindrick & Sleningford Estate.
- Creation of a sustainable, rural based industrial units and housing to support the estate and wider community.
- Provide a wider economic base for the estate's forestry output, and improve the viability of undertaking previously marginal silvicultural practices.

## actions

- Conversion of a series of derelict farm buildings, starting in 1996 with the former farmhouse, creation of workshops in 1999, expanding the site with new builds in 2002 and 2007, with the latter industrial unit (220m<sup>2</sup>) having a log boiler.
- Re-development of the estate's main hall, and owner's residence in 2004, incorporated extensive energy efficiency measures. This grade II listed house, built in the 1820's has 10 bedrooms, solid walls and original Georgian windows, and is now heated using a CN 40Kw log boiler, which received funding via the Low Carbon Buildings Programme. This work has meant it is now heated for the winter period at less than the previous summer oil cost!
- Design of a harvesting, drying, storage and delivery protocol for wood fuel and provision of heat meters on larger installations.

## achievements

For Business:

- Reduction in the fuel costs for the estate and its tenants, with the further sustainability improvements this brings.
- Development of the estate woodland and enhancement of the firewood supply enterprise.

For the Region:

- Reduction of CO<sub>2</sub> from the estate by the replacement of 6,000 litres of oil from the main house.
- Creation of a regional exemplar demonstrating utilisation of wood as fuel in a variety of heating sources (ranges, stoves, boilers) and a series of different scale installations, domestic (large & small) and light industrial.

## background

- Two local self-employed contractors, who also undertake fencing and estate works, work the estate woodland part-time. The estate uses in the order of 35t per annum of softwood thinnings with a split of 25:10t between the main house and industrial units.
- The development of the estate, both the main house and it's associated buildings looked at the energy use holistically, first working on ensuring any energy use is undertaken as efficiently as possible. Following these refurbishment works wood heating was installed.
- There was creation a uniform, interchangeable wood fuel delivery system, the 'stillage', which holds an average of 600Kg or 1000 Kw Hrs. These stillages hold 1m lengths of split softwood thinnings and are delivered to site with a tractor and forks. This system is used to fuel the sites two CN log boilers, from which the heat is sold to tenants via heat meters.
- Appliances using split logs such as cooking ranges and stoves are supplied with seasoned soft and hard woods stacked in uniform crates.
- The estate has a rolling programme of refurbishment of its properties, with wood heating being at core of any works. They have installed a 17Kw Windhager system which heats a domestic dwelling, educational kitchen and classroom complex. The farmhouse conversion runs a 12Kw Nordica system, with a further 2 cottages having stoves, and 2 others having 12Kw Aarrow parallel heating systems.

## quotes

*"The place was built when self reliance was the norm, providing our fuel from the woods is one part of regaining that state."*

Keith Mott, Old Sleningford Farm Tenant

*The wood stove is grand, we are warmer, there are fewer drafts and we are using half the firewood compared with the open fire."*

John May, Gardner, Sleningford & Lindrick Estate

## partners

Forestry Commission

## funding

Department of Energy &  
Climate Change  
Low Carbon Building  
Programme

Wold Stoves – Domestic Heating  
Appliances

Earlswood Services – Boiler  
Commissioning

Nigel Simpson - Plumbing

- £1,500 Domestic (Hall)
- £2,200 Small Industrial (Unit)

## lessons learnt

- When specifying any log boiler system ensure that charging units are included, as this will cut down in the amount of manual firing that will be required.
- Ensure that seasoning methods for any fuel stocks are tested and considered prior to full commissioning, this will ensure a consistent quality of supply and avoid problems associated with burning wet wood.