

Sleaford Renewable Energy Plant

SOCIO-ECONOMIC INFORMATION

August 2008



1 Employment

Construction

- 1.1 Construction of the energy plant will take approximately 30 months, including the commissioning period. Over this period, the number of people working on site will be approximately 100 on average, peaking at 200-250 for several months during the erection phase which begins around 12 months into the programme and lasts for about a year.
- 1.2 It is difficult to assess how many of these jobs would be taken up locally. A variety of disciplines will be required (in civil, control, mechanical and electrical engineering) and the split between imported and indigenous labour will depend on the local availability of such expertise.

Operation

- 1.3 The operation and maintenance of Sleaford REP will require 30 full time jobs. These break down as follows:

Position	No. off	Notes
Plant manager	1	Days
Operations manager	1	Days
Safety, Health and Environment Officer	1	Days
Plant administrator	2	Normal office hours
Shift technician	10	2 per shift
Maintenance technician	15	3 per shift
Total	30	

- 1.4 The plant manager, operations manager and SHE officer must all have previous experience in power plant management and are therefore likely to be drawn from a national recruitment exercise. All other roles require basic technical qualifications (typically vocational qualifications such as HNC/HND in engineering) and would be available to the local labour market. No direct experience in power plant operations and maintenance would be required although this would be an advantage in the lead operator role (one of the two shift technicians on each shift). Training in the particular techniques of plant operation and maintenance will be part of the turnkey contract: the turnkey contractor will be obliged to train the plant's O&M staff, providing only that they meet the minimum qualifications required to do the job.

Fuel Supply

- 1.5 Straw used at Sleaford REP is a residue from the cultivation of wheat. There is a market for straw but this is saturated by a small proportion of the straw produced in growing wheat. 20 years ago the excess straw would have been burned in the field; this practice has now been banned in Europe and instead the straw is ploughed back into the field. Sleaford REP therefore creates a new market for this straw.
- 1.6 Straw that is currently ploughed back will need to be baled and stacked at the field during the wheat harvesting season. Thereafter, throughout the year, these bales will be recovered from stacks, loaded onto vehicles and transported to Sleaford REP.
-

1.7 It has been estimated that the additional labour required to carry out this work is equivalent to 50 full time jobs. 30 of these jobs require full time positions; supported by another 110 over the harvesting period (which could be as long as three months, implying the equivalent of nearly 30 full time positions but our estimate aims to be conservative).

1.8 The full time posts break down as follows:

Position	No. off	Notes
Hauliers	18	HGV1 drivers
Fork lift drivers	7	
Fieldsmen	3	Agricultural college graduates
Administration	2	NVQ
Total	30	

1.9 The part time posts are:

Position	No. off	Notes
Balers	70	Tractor drivers
Collectors	35	
Stackers	5	
Total	110	

Impact on the community

1.10 It is important to note that the O&M jobs are technical roles that will require extensive understanding of the plant's control systems, its components and the disciplines of planned, preventative maintenance. These are roles that are sometimes lacking in what is a predominantly rural setting and as such they will provide a valuable opportunity for members of the workforce with ambitions in engineering to work and thrive in Sleaford and its surroundings. In the long run, employment at the power plant should enhance the staff's future employability in other engineering roles (although of course it is hoped that staff will be retained through structured continuous professional development).

1.11 In terms of fuel supply, jobs in the environs of Sleaford will depend on the location of the straw that is baled. Most straw will come from within a 30 mile radius of the plant; it is expected that, on a tonnage per square mile basis, the highest concentration of straw supply is from the vicinity of the plant, i.e. within 10 miles. Therefore it is reasonable to assume that Sleaford would benefit directly from the labour required for fuel supply. It is important to note that the fuel supply contracts offered by Sleaford REP are long-term, index-linked contracts that offer stability to anyone wishing to set up a business based on straw supply and as such it is hoped that this will encourage retention of agricultural expertise in the community that might have otherwise found opportunities within the sector limited.

Indirect Benefits

1.12 It is likely that significant sums of money that are spent on the construction, operation and supply of the Sleaford Renewable Energy Plant will be recycled into the area through expenditure on associated goods and services. Economists seldom agree on the figures that can be put on this effect, understandably given the variables from place to place and project to project. For example, one tool used by local government suggests that people employed by the plant that live locally will spend 66% of their income locally. Although the size of the additional benefit to the local economy through indirect expenditure is not clear, the principle is understood – it should therefore be accepted that the money spent directly on labour by Eco2 Lincs Ltd is only part of the economic benefit that the project brings to the area.

2 Sub-contracts, goods and services

Construction

- 2.1 The construction of Sleaford REP will be achieved by the award of a single, turnkey contract. The value of this contract is expected to be in the region of £70 million. Another £10 million is expected to be spent on associated capital items (for example, the grid connection), the purchase of land and financing costs.
- 2.2 The turnkey contract requires highly specialised engineering expertise in power plant construction and, more particularly, the combustion of straw. There are few companies with the necessary credentials and it is highly unlikely that the turnkey contract would be let with the region. However, it can be expected that the turnkey contractor will sub-contract significant parts of the work to local firms.
- 2.3 For example, Eco2 developed a wood-fired power station in South Wales which is commissioning now. The turnkey contract for this project was awarded to a Danish consortium with an established track record in wood combustion. The value of the turnkey contract was £28 million; £8-10 million (28%-35%) of this was sub-contracted to local firms. If similar percentages can be achieved at Sleaford then £20-£25 million will be spent on local goods and services.
- 2.4 The decision to use local sub-contractors must ultimately lie with the turnkey contractor since the contractor has overall responsibility for the construction and performance of the plant. However, Eco2 supports the use of local subcontractors and will encourage links into the region. In South Wales, Eco2 (in partnership with stakeholders such as the local authority and the chamber of commerce) acted as a conduit between interested local firms and the contractor, culminating in open days during which firms were able to meet representatives of the contractor directly.
- 2.5 Other than sub-contracts, there are indirect benefits for commerce in the vicinity of the plant during the 30 months of construction: the staff that will work at the site will require accommodation, feeding, and entertaining.

Operation

- 2.6 The cost of operation and maintenance of the plant is expected to be in the region of £2 million per annum. Approximately half of this will be staff costs. As discussed above, it is probable that many of the staff on site will be drawn from the local community and therefore the associated salary costs will be retained within the area of Sleaford.
- 2.7 The balance of the annual costs will be spent on consumables, spare parts, security, auditing, and other overheads. Many of these goods and services can be sourced locally.

Fuel Supply

- 2.8 Fuel supply costs will be at least £6 million per year. This figure is the delivered cost at the plant which therefore includes the cost of baling, storage, collection and storage.
- 2.9 The £6 million is the direct cost of delivering baled straw to the plant. It does not include the indirect costs associated with, for example the maintenance of balers and haulage vehicles. It should be recognised that money paid to straw suppliers will, in turn, be used to source and service the plant and machinery required to fulfil supply contracts.
- 2.10 Machinery associated with baling, stacking, recovering and transporting straw bales will need to be repaired, maintained and fuelled. It can therefore be expected that a proportion of the money spent on fuel will be recycled into these activities.
-