BISHOP'S CASTLE
BIOMASS POWER PROJECT

Development is planned for a biomass fuel power plant on the Bishop's Castle Industrial Estate (Figures 1 and 2). A business partnership of South Shropshire farming, forestry, wood industry and service companies is being consolidated.

Bishop's Castle Biomass Power Project (BCBPP) has produced this leaflet to consult with the community, Bishop's Castle Council, South Shropshire District Council, the local schools and industry regarding this carbon-neutral power project, prior to formal planning applications.

The plant will generate power and heat from wood chip and energy crops to provide sustainable energy in support of the local economy. The project will be a biomass fuel Combined Heat and Power (CHP) plant for sustainable development in response to the EU and government's policies on Climate Change, Renewable Obligation Certificates (for electricity) and Carbon Trading Schemes. The plant will be licensed specifically for wood chip and energy crops which use about 1% of the land within about 20Kms. This will provide a local, secure fuel resource and added value and jobs in the local economy.

2.5 MWe of electrical power will be generated, equating to the base-load energy use of 2,500 houses in Bishop's Castle and the neighbouring villages. A heat main is planned to the school, leisure centre, church and industrial estates. Wood pellets will also be produced and used in wood-fuel boilers at the local schools, businesses and homes; all contributing to a carbon-neutral community.

Figure 1. Plan showing the location of the proposed project.

The Project Objectives

The primary objective of this project (BCBPP) is power generation using renewable fuels for a carbon-neutral supply of power to Bishop's Castle. The project, in sourcing fuels, constructing and operating the plant and providing pelletised wood chip and boilers for use in local facilities, will contribute to policy objectives and support the local economy and jobs.

However, policy also stipulates that the power generated must not compromise other environmental criteria. South Shropshire District Council and any Environment Agency permits, as well as continuous emission monitoring, will address issues of regulatory compliance.

The technology to be used is a combustion steam cycle (Figure 2), chosen for its ability to meet the environmental objectives as well as for its robustness and reliability. It will feature:

- Advanced air pollution control systems.
- Limited visibility of the low (12m) building and low (16m) stack at the NE end of the present industrial estate.
- Total noise control within an acoustic building.
- Traffic limited to 4 HGV's (or equivalent) a day to deliver 60 tonnes/day of wood chip.

The power generated, and fed to the substation in Bishop's Castle, will help stabilize the current weak network supply and help stabilize the voltage. This will make any reinforcement of the local grid more viable in the future.

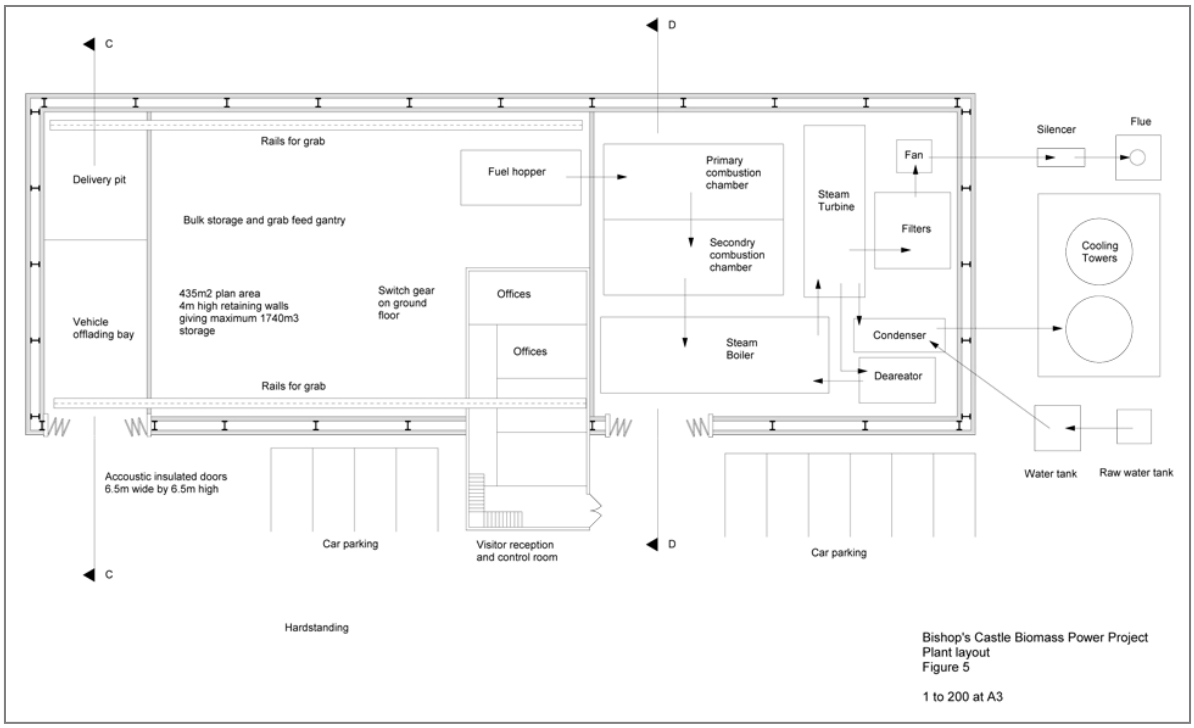


Figure 2. The proposed power plant.

Renewable energy as a new investment in the community

A biomass CHP plant will address the national and county policies and the local plans for:

- Saving of 7,000 tonnes a year of CO_2 (relative to coal) to mitigate climate change.
- Green electricity from local power generation for local use.
- Local sustainable development, including the proximity principle for sourcing fuel.
- Soil nutrients in the ash for annual storage and seasonal use in farming and horticulture.
- Energy crops and 'multi-functional' crops (including fibres and biofuels) for farming.
- Biodiversity options, with short rotation forestry and an option for more clumps and drifts of trees in character with the local landscape, using economic support from long term wood chip contracts for the power plant.
- Responsive to Agenda 21 and Sustainability Policies in county and local plans.
- Support for riverbank protection zones with willow and alder along the local rivers, supporting DEFRA initiatives.

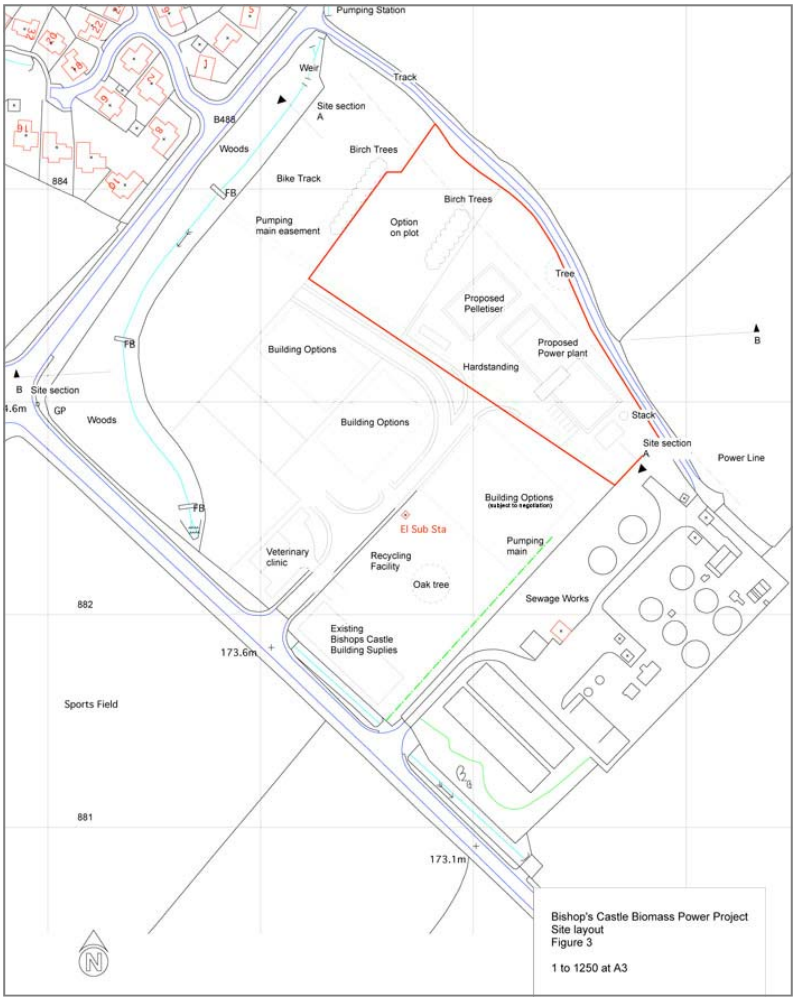
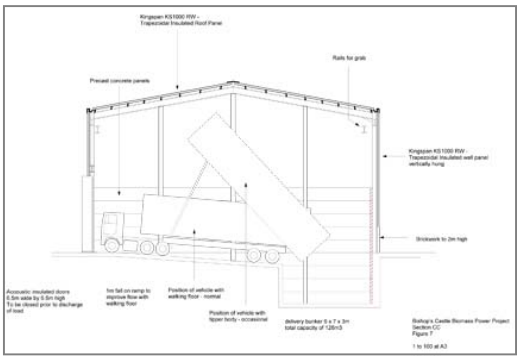


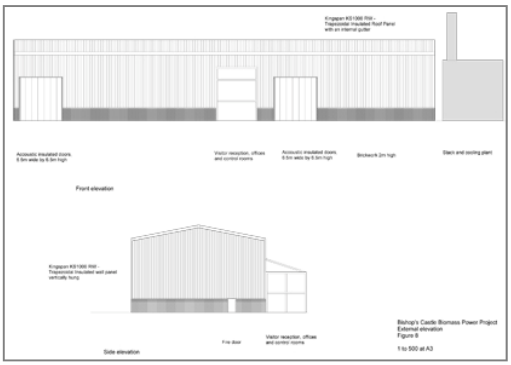
Figure 3. Plan of the site and the power plant.

Planning and environmental consent

The planning application will include an Environmental Impact Assessment (EIA) as good practice, although beyond the regulatory requirements. The EIA covers the potential impact from noise, air quality, water, ecology and biodiversity, as well as visual impact and landscape assessment. The EIA is underpinned by the concept of the 'non-significant environmental impact' – a threshold below which acceptable and quantitative design parameters are set. The environmental engineering for the project will achieve emissions well below regulatory limits.

Sustainability and renewable energy are now high level policy objectives as set out in UK Planning Policy Statement PPS22 and by the Stern Report on Climate Change. These policies and the project's objectives also remain compatible with other County and Local Plans and Policies.





Multifunctional crops for fibre, biofuel and straw.

Figure 4. Section and elevation of the proposed building, farm diversification and the proposed 2.5 MWe turbine.

Summary

The Planning Application will be submitted in late May 2007 for a determination over the following few months. Subject to determination, construction will start in 2007 for completion in 2008.

The project will begin with local construction and fuel supply contracts.

The project will generate power using renewable fuels. It will support local farming and forestry industries in the production of energy crops and wood chip with long term contracts, including multifunctional uses for biofuels. Security of supply for power will no longer be an issue; and the project will contribute to a carbon neutral community.

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