

Eco2 answers local livestock producers' concerns regarding the proposed Mendlesham straw fired power station

August 2013: Developers Eco2 suggest that the proposed straw-fired power station at Mendlesham, near Stowmarket, Suffolk, will complement other biomass plants in the area rather than create competition. At a recent high level meeting, NFU and NPA representatives challenged this view. A series of frequently aired concerns were raised with the Eco2 team – these have been compiled and listed below, together with the responses from the developers.

Eco2 have also offered to meet with NPA and NFU members who continue to have reservations. A meeting between Eco2 and concerned local parties will therefore be organised to discuss specific issues in more detail:

- Is there evidence that Eco2's approach will actually release sufficient straw from arable farms within such a livestock-dense area? Has any market research been conducted?
- Eco2's strategy, if despite best efforts, sufficient straw cannot be procured for the Mendlesham site

Q. Eco2 and Icen Energy announced in May that they will integrate fuel supplies of straw and other biomass to both the Snetterton and Mendlesham plants, therefore limiting any further negative impact on local straw supply. How will you do this?

A. Snetterton is proposed to burn 60% oilseed rape straw, 20% wood chip and 20% wheat straw. Mendlesham will burn 60% wheat straw (not 80% as originally proposed), 20% oilseed rape straw and 20% other biomass fuels (miscanthus, wood chip, etc.)

Q. Your projects are based on the assumption that within East Anglia sufficient straw and biomass can be released from arable farms, yet locally many livestock farmers and some arable farmers do not share this view. What convinces you and your funders that fuel supply is available without disrupting straw supplies to local livestock farmers?

A. Eco2 will offer long term contracts at fixed prices which will give farmers security and a supply outlet which is consistent year after year. We have learned how to do this well, based upon over 10 years' experience at the Ely power plant (now operated by EPR Ltd), which started a commodity market in large Hesston bales, sending long-term signals to the baling and haulage market to invest in more capacity.

Q. Seasonality of supply is a huge unknown, so how will Eco2 account for this in the future? (for example, national winter wheat plantings are down by 25% this year according to HGCA, with large regional variation in planting and anticipated straw yield)

A. The power plants will carry nearly 50% contingency stock on and off-site at all times, which will be built up during the construction phase. We will pay one long-term price and will not increase our marginal price towards the end of a supply year.

Each plant is expected to hold stocks equivalent to between 40% and 50% of its long term contract tonnage as a contingency against any problems with fuel supply. This buffer stock must be churned on an annual basis to protect against degradation, at which point new stocks enter the buffer and old stocks are released from buffer to feed the plant. There will be a ramp of buffer stocks during construction (during which time fuel is not required for operations) but thereafter stock rotation means annual purchases will be equal to annual consumption. The buffer protects against the need to suddenly enter the market in response to fuel supply issues and should contribute to our aim to create a steady, predictable fuel demand.

Q. Livestock farmers believe that you will outbid them for straw since you are subsidised by government renewable energy policy, and that your contracts linked to the RPI will increase the price of straw annually – how does Eco2 counter these points? How can local livestock farmers be assured that arable farmers who are existing suppliers won't switch to supplying Eco2 instead?

A. We do not want the price of straw to rise, since we are financially exposed to our substantial feedstock operating costs - if anything, we want to manage volatility in straw prices in the future. We understand that straw cost is a smaller proportion of input costs for livestock farmers than it is for us, so it is unlikely we would be able to outcompete well-organised existing users. However, Eco2 does recognise that margins in pig farming are notoriously slender, so the impact of small price movements on pig producers could be significant.

Q. Aren't you just project developers who will build the plant, make a fast profit and sell on to new owners?

A. No, we are committed to the long term, for the lifetime of the project debt (typically 12-15 years). Despite the transfer of ownership to banks and investors, Eco2 have remained as the plant operators and public face of all of our projects, from the wood-fired plant at Margam in Wales to the new straw-fired power station at Sleaford in Lincolnshire (note that the Ely plant was not developed by Eco2 itself, but by some of the team within Eco2).

Q. Why not use the same fuel mix at both Mendlesham and Snetterton? Why don't you promote more use of oilseed rape straw? Since this has fewer alternative uses, it should be the ideal biomass source.

A. Oilseed rape straw has only recently been introduced as a power station feedstock and our financial backers may not take on the additional risk of two plants using mostly oilseed rape straw. Originally the boiler contractors were concerned that its oil content would make combustion unmanageable, but we have learned more about using it over the years that our projects have been in development. However, we still need a balanced mix of feedstocks.

Q. Can livestock farmers be assured that the recent announcement to use more oilseed rape straw is not an attempt to ease the planning process at Mendlesham, and that once planning is granted the plan will revert to more wheat straw? What % of the oilseed rape acreage will need to be baled to meet these needs – is this realistic?

A. Oilseed rape straw has a higher energy content than wheat straw and has less competition. It is therefore more profitable for us to burn as much oilseed rape straw as possible. Between them, the two plants could use up to one-third of the oilseed straw in East Anglia, most of which has no other market, but some could also be supplied from the East Midlands, where there is a larger resource.

Q: Why have you selected the Mendlesham site, and not located the plant further south, such as in Essex, where there is more straw supply and less demand?

A: We believe the road network and grid connection favour the development of a site in Suffolk. Our opinion is that road transport becomes less reliable if it involves the M25, due to traffic delays and drivers' hours. At the time of selecting Mendlesham, we were satisfied that the area could sustain a plant of this scale without affecting straw price. Clearly the existence of Snetterton has forced us to refine our fuelling strategy to comfortably account for both plants by ensuring that no more than the equivalent of one plant is supplied by wheat straw.

Q. This project will remain an ongoing concern for many East Anglian livestock producers. What is your long term strategy to work with and support local straw users?

A. We have found that the presence of a power station offering long term contracts for straw encourages baling contractors to invest in more plant. This is the only way to harness straw which is currently ploughed back into the land. As a matter of course it is our intention to increase the amount of straw that is sold, thereby reducing the 5 million tonnes which is chopped and incorporated annually. Ideally, the amount of additional straw which is baled will match the requirements of the plant, but the key will be well-functioning markets for all straw users and producers.

Notes:

Last year, an ad-hoc NFU/NPA straw working group met a number of times under the chairmanship of Adam Quinney, to develop policy further on straw supply and demand. One of its agreed actions was for the AHDB to provide consistent information on straw sourcing and storage, as published this year (29-Apr-2013):

<http://www.nfuonline.com/science-environment/renewables/plan-now-for-straw-supply-security/>
<http://www.ahdb.org.uk/projects/Straw.aspx>

Eco2 and Icen Energy announced in May 2013 that they are joining forces to coordinate and secure fuel supplies between the planned straw-fired power plant at Snetterton, Norfolk, and a second proposed power station at Mendlesham, near Stowmarket, which is seeking planning consent. By increasing fuel flexibility and integrating the feedstock requirements of the two projects, Eco2 and Icen claim that the overall effect on existing users of wheat straw will now be less than originally proposed for one power plant alone.

The joint Eco2/Icen press release on fuel supply to the Snetterton and Mendlesham plants (10-May-2013) can be read here:

http://www.eco2uk.com/en/news_events/news_detail.asp?news_id=267