

BIOMASS TASK FORCE

FIRST COMMENTARY ON PROGRESS – FEBRUARY 2005

Purpose of the Task Force

1. The Biomass Task Force was launched on 15 October to assist the Government and the biomass industry in optimising the contribution of biomass energy to renewable energy targets and to sustainable farming and forestry and rural objectives. The Task Force for this one year study is led by Sir Ben Gill, working with John Roberts from United Utilities and Nick Hartley from Oxera Consulting.

2. Initial questions were posted on the Task Force web page: <http://www.defra.gov.uk/farm/acu/energy/biomass-taskforce/index.htm> The Task Force is in touch with trade bodies, individual companies, government departments, regional representatives such as Regional Development Agencies (RDAs) and Government Offices (GOs) and other stakeholders. It has so far undertaken around 45 meetings and visits and is issuing this note to set out initial thoughts on strategic issues and on some more detailed points which have emerged so far. These may be modified as a result of further investigation and discussion. This note also points out the other areas which the Task Force intends to focus on in the next phase of the work.

3. The Biomass Task Force was committed in its terms of reference to produce an interim report in March 2005. In addition we intend to produce a number of commentaries, of which this is the first, in which we wish to raise major concerns that have been highlighted to us by groups and which we believe feel deserve further consideration and comment. **We welcome individual and group comments either positive or negative on the following issues:**

A. The Supply Chain

4. Biomass has potential to be used to produce heat, combined heat and power and in stand-alone electricity generation. A supply chain for biomass, equivalent in size, structure and organisational capability to those of oil, coal and gas, is clearly lacking. We have had repeatedly pointed out to us the need to have such a chain for biomass readily available as a precursor to establishing the necessary trust in the end-user's mind that biomass is a reliable energy source. In respect of the heat market, there appears to be a lack of appreciation of the potential that biomass has to offer as a practical alternative to fossil fuels. This applies to both the consumer and the construction industry. And the use of biomass from farming and forestry sources is entirely new for generators used to operating at very large scale.

5. **The Task Force will need to consider what needs to be in place to give confidence to suppliers and end-users, both large and small-scale, and how that could best be facilitated.** The potential role of co-operatives and other groupings of producers will also need to be considered.

6. There is a need for **strong linkages between energy and waste policies**. All too often material described as “waste” is dismissed as not wanted by sections of society and planners. Many have suggested that there is a clear need to improve the general understanding of how “waste” products might be best used in a “chain of utility”. There is real potential to use “waste” biomass but energy production is sometimes seen as a last resort. This could be both a significant and long-term feedstock and development would need a co-ordinated approach between Defra and DTI. It is for consideration whether there should be some lessening of the emphasis on recycling and reuse if recycling for energy is a legitimate use for “waste” at the appropriate point. This is about making best use of the biomass resource. The Environment Agency seem well aware of these issues and have made a commitment to produce a “guide to the use of waste as an energy source” which takes into account the implications of the Waste Framework and Waste Incineration Directives. One specific example of concern expressed to the group by the slaughtering industry is the forthcoming restriction on the burning of tallow as an energy source. **Given also the significant pressure to avoid landfill, the potential for “waste” to energy will be explored further by the Task Force.**

B. Biomass as a source of heat

7. Energy policy has concentrated on the supply of power. The heat market has received some encouragement by way of incentives for investment in CHP, but this aspect of policy remains underdeveloped. Yet actions which increase the efficiency with which fuel is used have the potential to make a significant contribution to the reduction of carbon emissions. While there will, of course, be a continuing need for stand-alone electricity supply, where heat-only or CHP applications can be encouraged, the gains can be substantial. Thus, while any substitution of biomass for conventional fuels brings carbon savings, there may be additional gains if biomass can be used to produce standalone heat or CHP (at their best CHP applications are said to be able to extract 90% of the available energy, while electricity generation achieves figures in the range 30-50%). Further, biomass as a renewable and indigenous source of fuel also contributes positively to diversity and so security: a consideration which is likely to weigh more heavily as the UK becomes a net importer of primary fuel.

8. An issue is **how to place a value on and develop the biomass heat market**. A rationale for support would need to be developed, clear delivery objectives and a strategy for the best way forward. Key to this will be an assessment of how to overcome what seems to be the main barrier in the stand-alone heat sector, the high capital cost of kit. **The need for an Obligation** to deliver renewable heat is being considered by the Government in response to the report by the Royal Commission on Environmental Pollution. **The Task Force will be giving further consideration to how best to optimise the heat market.**

9. Although the Government has targets for the introduction of combined heat and power (CHP) investment in capacity has all but stopped. This has, in part, been a reflection of market fundamentals, notably the relation between gas and electricity prices, but the introduction of the **New Electricity Trading Arrangements (NETA)** and the requirement to predict supply was a significant blow to development of projects where electricity is exported to the Grid. Despite some adjustments to NETA aimed at improving the position of generators who find it difficult to predict their supply, export prices from CHP plants remain significantly below pre-NETA levels. CHP which operates on the basis of using the heat produced and spilling surplus energy into the grid will find it difficult to meet the same requirements as more conventional generation. **Nevertheless, the carbon benefits which flow from CHP point to a need to further consider how this technology can be harnessed.**

C. Bureaucracy, Regulation and Clarity of Messages

10. Biomass is, like any other renewable technology, eligible under the RO and under a variety of other schemes as well as general support through exemption from the Climate Change Levy and from the new Emissions Trading Scheme for carbon. Investment has been supported in the Non-Fossil Fuels Obligation, the Bio-energy Capital Grants Scheme, the Bio-energy Infrastructure Scheme, Clear Skies and direct support to plant energy crops and set up producer groups. This has been underpinned by an extensive programme of research and development. But biomass has, to date, struggled to make progress.

11. While there have been regular and repeated statements of the Government's long-term commitments to the use of biomass as a renewable energy source, the biomass industry considers that this has not been underpinned with action to achieve strategic development. Consequently, the view in the biomass industry is that there is **no clear, long-term message** about what needs to be delivered. The stop-start approach to the development of biomass, for example through the use of the Non-Fossil Fuels Obligation, Bio-energy Capital Grants Scheme and Clear Skies, are taken as evidence of a lack of a clear strategic approach. Similarly, the rationale for the renewables policy in relation to biomass is thought to lack clarity, different government departments having different agendas. Some argue that support for renewables is simply about reducing carbon emissions but, if this is the case, then there could be better ways to achieve that end. Others argue that, in addition to carbon, valid reasons for supporting biomass renewables include energy security, diversity of supply, industrial benefits and rural benefits. The precise balance between objectives will always remain a matter of judgement. And expensive carbon reduction options, from biomass feedstocks, supported today may have the potential to become more competitive in future and to contribute to wider economic and social objectives.

12. At a recent conference in Warwickshire the Energy Minister predicted that **a revolution in the energy sector is needed, with a complete restructuring of electricity generation and substantial capital**

investment. The changes in the energy system will depend both on private sector decisions and on government intervention in favour of particular technologies, most obviously renewables. The end result will almost certainly be a significant change in the structure of electricity distribution and transmission.

13. **Other alternatives such as biomass-based district heating**, which the UK has not to date readily adopted and which the Task Force continues to examine the reasons for, will also need to be considered.

14. The Renewables Obligation (RO) is a market-based mechanism and, as such, it introduces greater risk into the market than, for example, support built on firm prices. **We have heard from small, independent generators that they cannot secure longer-term power purchase agreements** at viable prices and that this has undermined the potential for schemes such as the Bio-energy Capital Grants Scheme to deliver capacity. Large, integrated generating companies are better placed to handle the risks the RO creates. The Task Force is considering the basis on which investments in biomass generation are made, including the expectations of financiers, and the likelihood of meeting those requirements within the RO. **If they cannot be met, then consideration would need to be given to what other actions will need to take place to resolve the issues.**

15. The role of the Regulator OFGEM, is said to be heavily focussed on the protection of the short-term pricing interests of the consumer which are taken to be best served by the use of competitive means wherever possible. **It is unclear to us how OFGEM place a value on the benefits, other than economic, which could be delivered.** The Task Force will be seeking further views from OFGEM.

16. Many have commented on the **complexity of biomass support schemes** – currently seen as piecemeal, fragmented and opportunistic with differing deadlines, grant rates and rules. This emphasises the importance to industry of building strategic purpose in the biomass sector and a long-term message/statement of intent from Government.

17. Support for energy crops illustrates an opportunism which has been seen in biomass energy policy, initially being driven by the assumptions about the proportion of the 10% renewable electricity target which energy crops would need to deliver. This was followed by a move to technology-neutral market mechanisms which disadvantaged higher cost options such as energy crops and other biomass. But there has remained in government a desire to develop the energy crops sector, evidenced by the current promotion of co-firing and elements of the Bio-energy Capital Grants Scheme. It could be argued that a market-based approach should leave the selection of feedstocks to the market. This, and the crucial lack of established supply chains, links to the consideration of the **future of the Energy Crops Scheme** which is currently taking place. A dedicated scheme is one option for support but this could equally be incorporated within other mechanisms such as those which underpin wider diversification objectives.

18. There is an issue about delivery and the **role of the Regional Development Agencies**. It is clear to us that RDAs and all local government will have an important role in the take-up of national policy and its interpretation and implementation at regional level. But there is a need to avoid duplication. We have had repeated comments from all sections of the stakeholder chain that there has been a significant waste of resource in the regular commissioning of consultants reports which seem to have bred a new theoretical biomass industry with little relevance to the clear needs of the industry itself.

19. There is concern that Bio-energy Capital Grants Scheme introduces **distortions to the market** by, in some cases, not allowing the use of heat and also by mandating some feedstocks. There is a need to consider how the market be facilitated without introducing such distortions.

20. We have had demonstrated to us examples where **levels of control and bureaucracy** seem to be unrelated to risk. In the policing of blending in the co-firing arrangements it seems not to be necessary to require that biomass is blended with coal at the power station. It has been said to us that adequate controls, which would enable regulations to be complied with, could be put in place to allow off-site blending. Similarly, the application of the 98% rule, the rationale for which is in any case unclear to us, is policed with sampling arrangements which seem out of proportion to normal risk assessment practices. These are issues on which we shall be seeking further dialogue with DTI and OFGEM.

21. It would appear **regulations** linked to clean air legislation and coal-fired heating systems are inappropriately applied to biomass boilers. Similarly, an inconsistency pointed out to us is **VAT** on gas-fired boilers which is levied at a reduced rate of 5% whereas at standard rate of 17.5% on biomass boilers which have the potential to be efficient and deliver greenhouse gas savings. **Type approval** of biomass systems would eliminate the need for individual approval of systems. These all appear to be regulatory barriers which could be resolved relatively easily and would facilitate development.

D. Other subjects we are considering

22. There are a number of other subjects we intend to consider in detail. These include:

- Land availability.
- The impact of reform of the Common Agricultural Policy.
- The potential of co-firing, its long term role, and its role in stimulating supply chains.
- The role of public procurement.
- International comparisons.
- Environmental externalities including life cycle assessment and accreditation standards.
- Role and limitations of demonstration projects.

- Recognising the value of heat, distinguishing between urban and industrial CHP.
- The carbon potential of biomass CHP.
- Planning issues and awareness of biomass options amongst architects.
- Role of and potential for energy supply companies.

E. Conclusions

23. This first commentary will be one of several. We intend to issue a second at the end of March. The Task Force invites views on both the strategic and detailed emerging findings. These should be sent to the Secretary to the Task Force by 9 March.

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