



**D1 Oils plc**

**Response to the Consultation on the Government's proposed draft  
Requirements and Guidance for Carbon and Sustainability Reporting  
under the Renewable Transport Fuels Obligations (RTFO)**

**13 September 2007**

## **Introduction to D1 Oils plc**

D1 Oils plc is a UK-based global producer of biodiesel. Our operations cover the agronomy, refining and trading of biodiesel. We are pioneering the science and planting of energy crops that produce inedible vegetable oils to make biodiesel. We have identified an alternative feedstock, *Jatropha curcas*, as a non-food oil crop that can be grown on a wide range of soil types. *Jatropha* has the potential to be produced sustainably in regions within a 30 degree band either side of the equator, including Central and South America, Sub-Saharan Africa, the Indian subcontinent and South East Asia. We are, *inter alia*, establishing a global joint venture with BP, D1-BP Fuel Crops Limited, to create a world-leading business in *jatropha*.

### **D1 Oils agronomy**

D1 Oils believes we should not rely solely on traditional edible vegetable oils as biodiesel feedstocks. We believe the industry should develop alternative biodiesel feedstocks from plants, shrubs and trees which produce inedible vegetable oils that do not directly compete with food crops. D1 Oils has a committed, long-term strategy to develop such feedstocks.

Current sources of *jatropha* show a potential oil content of up to 40% under good management practices. The extracted oil has compositional properties which allow it to be refined into high-quality biodiesel that meets the European EN14214 biodiesel quality standard.

Crude *jatropha* oil is inedible and its price is not distorted by competing food uses. Most importantly, *jatropha* is environmentally elastic, with an ability to tolerate a wide range of climates and soil conditions, including land that is sub-optimal for food production. *Jatropha* will not compete with or displace rainforest. Based on existing *jatropha* planting in different areas of the world, yields from mature, uncultivated lines of *jatropha* can reach up to 1.7 tonnes of oil per hectare. This already compares favourably with yields from soya (around 0.5 tonnes per hectare) and rapeseed (around 1.5 tonnes per

hectare). Up to 30 June 2007, D1 has planted or obtained rights to offtake from a total of 178,000 hectares of jatropha worldwide, with planting concentrated in Southern Africa, India and South East Asia. This planting has been undertaken to date with uncultivated lines.

### **D1 Oils agronomy - plant science**

Our plant science programme has gathered a wide range of jatropha material and has started a global commercial breeding and product placement trial network for this crop, with the aim to develop jatropha cultivars best adapted to the different cultivation zones. The first commercial outcome of the plant science programme is our 'E1' seed material, selected for improved yield and good biodiesel profile. We expect seed of the first generations of selected varieties have the potential to deliver oil yields of up to 2.7 tonnes per hectare under properly managed conditions when trees attain maturity. We expect to be able to plant 50,000 hectares with this material in 2008. In the longer term, we believe that we will be able to develop new cultivars with even higher yields.

### **D1-BP Fuel Crops**

In June 2007, D1 Oils and BP announced the establishment of a 50:50 joint venture to undertake global planting of *Jatropha curcas*. The joint venture aims to be a leader in jatropha production and aims to plant one million hectares of the crop over four years. The scope of the joint venture will include the planting of trees, harvesting of jatropha grain, oil extraction and transport and logistics. The creation of this joint venture is a major endorsement by BP of D1's sustainable feedstock strategy. D1 retains ownership of the plant science technology that will be supplied to the joint venture.

### **D1 Oils - refining and trading**

D1 Oils has developed its own biodiesel refinery technology in the UK. We commissioned our first refineries in 2006 and now have 42,000 tonnes of refining capacity on Teesside. We are building new capacity at Middlesbrough and at our new site at Bromborough on Merseyside. We are currently

operating our refineries on soya oil until jatropha comes on stream. All development and commissioning work was and continues to be UK-based. We expect the first modest volumes of jatropha oil to be delivered for refining in the UK in 2008.

## **Response to the Consultation**

### ***Question 1 – Is the general scope of the reporting requirement set out in chapter 2 appropriate?***

D1 Oils supports the initial reporting requirement as a precursor to RTFO support becoming conditional on more specific carbon and sustainability standards. We support the development over time of reporting systems that deliver genuine carbon savings and ensure real sustainability. The general scope of reporting is appropriate, and, as defined in the document, will help all stakeholders to understand where improvements can and must be made.

We believe it is important that data from these reports is made public on a regular basis in order to maintain public support for the policy and provide assurance that progress is being made towards key targets.

D1 Oils is a pioneer in the commercial development of a new feedstock, *Jatropha curcas*, and would like to suggest that the scope of the reporting system is able to take into consideration new feedstock species which may have differing sustainability profiles. Carbon and sustainability performance from these new feedstocks should be reviewed on an ongoing basis, as supporting data becomes available.

D1 Oils also recognises the importance of land use change to the process of the RTFO and would like to encourage the development of origin specific values which can then be incorporated into the GHG saving calculations.

***Question 2 - Is the Meta standard approach suggested in chapter 3 appropriate?***

D1 Oils supports the Meta Standard approach. It should enable industrial and agricultural parties to adopt and use existing standards and have confidence that they can achieve the requirements of the legislation. It is important that the RTFO Administrator reviews the available standards against the Meta standard on a regular basis and assesses newly developed standards from industry bodies as they develop. It is suggested that the RTFO Administrator is obliged to perform such reviews on an annual basis at least. We are particularly keen to see the Administrator review supply chains and accompanying standards, where applicable, for new feedstock species, both edible and inedible, such as *Jatropha curcas*.

***Question 3 – Are the Environmental and Social principles set out in chapter 3 the right ones?***

D1 Oils agrees with the current principles as set out in the document. We would encourage the RTFO administrator to review these on a regular basis as the scheme progresses.

***Question 4 – do the proposals for the content of monthly reports set out in chapter 3 provide enough detail – is there other information we should require?***

We welcome the recognition of the importance of providing data that demonstrates the carbon and sustainability credentials of the fuels blended within a period. It will require obligated parties either to establish long term supply arrangements with parties for consistent fuel quality material with consistent sustainability characteristics, or to ensure that spot purchases are made with consideration of sustainability characteristics.

D1 supports the recommendation made in DfT workshops that a monthly report should include a notes or comments section that allows an obligated party to pick out and comment upon any specific areas of variation from month to month. Those parties that work with supply chains to provide improvements within a year should have the opportunity to make a comment

on this activity and provide a level of explanation, at a summary level, within a monthly report. Those parties that routinely offer “Don’t Know” and use defaults should be obliged to make a comment on the reasons why they persist in this approach. The suggested notes and comments sections will provide evidence to the Administrator that the obligated parties have management systems in place that continuously monitor actions in this area.

D1 Oils shares the expectation of the REA that the Administrator will keep content of the monthly reports under review and suggest changes in the light of experience and suggestions from stakeholders.

***Question 5 – Is there other information that should be required in the annual reporting requirements set out in chapter 4?***

D1 Oils welcomes the annual reporting requirements as well as the obligation for submitting plans on improving the sustainability of sourced biofuels. We would like to stress the importance of an ongoing review of these annual reporting standards once the scheme is in progress to ensure its efficiency and clarity.

***Question 6 – Are the targets for reporting in chapter 4 appropriate – should they be higher/lower?***

D1 Oils is concerned that the current system proposes very specific, numerical data for carbon intensity calculations (through the mechanism of default values) but less specific and less quantitative data for the assessment of the sustainability calculation. We would like to see this inequality in standardisation eliminated as soon as possible.

D1 Oils believes that it is critical that both carbon intensity and sustainability are treated as equal assessment parameters in the evaluation of feedstocks. The Government’s stated objective for the RTFO is to deliver GHG savings while maintaining sustainable production for biofuel feedstocks. We support the position of the REA that “Unknown/Don’t Know” returns on carbon, sustainability and land use change will not contribute to meeting these objectives.

In addition, a number of default values have been given that would give no incentive for the reporting of actual data and this should be avoided.

In particular, D1 Oils wishes to support the consultants charged with developing mechanisms for the RTFO in the development of assessment criteria of new feedstock species such as *Jatropha curcas*. In the case of new crops such as jatropha that are only just entering into commercial production, we have the opportunity to start from the ground up, to develop new criteria for assessing a crop.

### **The Percentage of feedstock meeting a Qualifying Standard**

We agree with the assessment of the REA that, on balance, these targets should be achievable. However, this does depend on the successful roll-out of some of the benchmarked schemes and the development of standards for new alternative feedstocks that are not currently included. Revision will be required with the advent of new feedstocks.

### **Annual GHG saving of fuel supplied**

D1 Oils fully supports the setting of stretching greenhouse gas (GHG) saving targets. However, such targets must be realistic. We share the concern of the REA that the Government has set a sliding scale of targets for the first three years of the RTFO based on:

- an artificial ramp-up year on year that bears no relationship to technology development or the introduction of new feedstock species;
- an end point at 60% for 2010/11 that represents a best or near-best case within Life Cycle Analysis, and cannot be interpreted as representing an industry average;
- a timescale in which technology developments, especially the introduction of so-called 'second generation' technologies, may not have developed sufficiently to make any contribution to reaching a carbon saving of 60%. The suggested annual GHG savings should be based on current known technology.

- The targets are intended to influence the behaviour of obligated parties and the relationships that these parties have with their suppliers. Many obligated parties do not at present have substantive arrangements with suppliers. Targets, therefore, should allow some time for obligated parties to build these relationships. The impact of this may be to have lower carbon saving targets.

D1 Oils supports the REA's view that the listed targets can only be met if:

- the burning of biofuel co-products as fuel in the UK is accommodated in government policy to support viable biofuel production and power generation;
- the calculation of a number of default values is reworked to give a more accurate representation of reality (see Question 13 below).
- the calculation of default values for new feedstock species is done as soon as these start to come on stream and are reviewed on an ongoing basis to capture new data points in the default calculations.

The Government needs to decide whether these conditions can be met or whether the targets should be altered to reflect what can realistically be achieved in the three year period. Appropriate external communication of realistic targets is critical to maintain an overall credibility around a young and emerging new industry. Care should be taken not to overpromise to society the potential of the biofuels supply chain in terms of GHG savings while it is still relatively immature as this could have a detrimental impact on public perception if the targets are unrealistic.

#### **Data Reporting of sustainability characteristics**

D1 Oils supports the reporting of data on a feedstock by feedstock basis. In this way, each feedstock will be assessable on its own merits. This will enable a more transparent assessment of the equal importance of carbon intensity and sustainability.

***Question 7 – Is our approach to the chain of custody set out in chapter 5 a sensible one?***

In principle this appears to be sensible. However, it will take time to assess the impact of this on the overall reporting scheme.

***Question 8 – Are we right not to allow C&S information to be transferred in an equivalence trade?***

D1 Oils agrees with the REA that the Guidance does not question the practice of equivalence trading, as set out in EU legislation, for crops grown under contract for energy use. However, as currently drafted, it does require that the carbon and sustainability characteristics of the feedstock that physically enters the biofuel plant be recorded rather than those of the product which is the subject of an equivalence trade contract. This proposal is in potential conflict with the intention of the RTFO legislation to encourage obligated parties, through the supply chain relationships that they establish, to influence the behaviour of their suppliers to reduce the impact on the environment.

We share the REA's concerns that were this to be accepted there would be the following negative consequences:

- supply chain efficiency, which equivalence trading is intended to facilitate, would disappear;
- liquidity in the market place would be severely curtailed;
- biofuel producers would lose the ability through contract of driving better practices to deliver better carbon and sustainability characteristics;
- growers outside the fairly narrow radius of a biofuel plant would lose the ability both to supply crops for energy use and to qualify for energy aid;
- competition will be restricted as growers within the radius of a biofuel plant will command significantly higher prices.

D1 Oils supports the REA's recommendation to DfT and DEFRA that a compromise be accepted that would allow the contracted crop to record

carbon and sustainability characteristics, and the delivered crop to record sustainability characteristics. This would have the additional advantage of ensuring that there was a net global carbon benefit with double the amount of product meeting sustainability criteria.

***Question 9 – Is our approach to verification set out in chapter 6 appropriate?***

We welcome the fact that the proposals recognise the importance of verification and offer a framework for this verification to take place. However, while the framework requires obligated parties to appoint competent persons, it does not define competence. This is left to the obligated party to determine and therefore leaves room for subjective assessment and variation in performance. The Administrator should consider developing a competence standard for both those administering the reporting systems and also those verifying the reports produced.

***Question 10 – Are there any other standards that should be benchmarked from the outset – Annex A?***

The standards as included in the table form a good starting basis for benchmarking. D1 Oils would wish to stress further the importance of developing a flexible system vis-à-vis new feedstock species. D1 Oils is willing to work with the government, its consultants and different stakeholders to develop standards for crops like *Jatropha curcas*.

***Question 11 – Is excluding by product reporting as set out in Annex A appropriate? Are the by-products suggested in Annex A the right ones?***

In the context of the currently presented Guidance and Requirements, the suggested by-products are the correct ones. However, D1 Oils believes that this needs to be reviewed with the advent of new feedstock species which may have specific attributes.

D1 supports the view that has emerged during DfT workshops that the Administrator retains a list of recognised by-products as a published

document, independent to the Requirements and Guidance consultation. This will allow the list to be amended and updated without having to re-issue or consult on the full guidance document.

***Question 12 – Is the exemption for mechanised farming suggested in Annex A appropriate?***

Yes.

***Question 13 – Are the carbon intensity default values set out in Annex F correct?***

The methodology has been well developed and the broad approach to establishing defaults is agreed. However, the document does not provide sufficient detail on the precise references for each default to be able to comment on each default in full. It is understood that the intent has been to reference appropriate industry data where available in developing the defaults. The final guidance must include a full reference data set. This will allow supply chains and industries to respond fully and to work to improve its performance as measured by these references where required.

The methodology also uses various co-product allocation techniques. However, it is broadly recognised by life-cycle practitioners, including the advisors to the consultation document, that best practice is to use a substitution technique to calculate life-cycle green house gas balance.

The concern relating to substitution has been that this may lead to double counting of carbon benefits by multiple fuel suppliers, and that it may then lead to double counting across different sectors where economic incentive is linked to environmental value, such as power generation.

The following points should be considered with regard to this issue:

- the way fuel supply chains can be avoided by appointing competent verifiers under a recognised competence framework, as considered

earlier. Consequently the Administrator can be confident that in future the correct number of road transport fuel certificates has been issued;

- double counting across sectors is not within the boundary or scope of this methodology or the RTFO. It is a broader political consideration. As such it is necessarily outside the competence of the steering group and the authors of the methodology and the document have not invited appropriate stakeholder involvement or consultation from the relevant industry sectors. The methodology as proposed could for example disadvantage the use of combined heat and power (CHP);
- the energy allocation method may also give arbitrary benefits and disadvantages depending on the particular circumstances of a biofuels plant, wholly unrelated to GHG savings;
- should it be brought into the scope of this methodology, consideration should be given to the broader issues of global warming, the value of saving carbon across all sectors and the positive impact that fully integrated supply chains can have on delivering against such issues.
- the Stern Report recognises the economic cost and value of climate change and that it is entirely appropriate for Government to encourage schemes that develop broad applications for renewable supply chains into multiple energy sectors.

Should allocation be used, we recommend that it be based on price. Prices should be set by the Administrator that cannot be modified within the reporting systems. This will avoid a supplier being penalised in carbon terms for any value achieved for their improving carbon performance over time.

D1 Oils agrees with the assessment of the REA that the way in which the default values have been set, in particular the difference between 'conservative' and 'typical', has been commonly misunderstood and does a disservice to the biofuel industry. The Technical Guidance should make this distinction much clearer so that misunderstandings do not arise.

In the event of extreme weather conditions which dramatically reduce yields, D1 Oils supports the REA's view that consideration be given to the use of default numbers even when actual data is known.

In general we would also wish to be assured that the Administrator has a clear remit to review the science and LCA practice on a regular basis so that default values remain fully up-to date.

***Question 14 – Is the approach to assessing the impact of land use changes set out in Annex G appropriate?***

It is clear that land use change will have a significant effect on the carbon intensity of biofuels. D1 Oils agrees that the RTFO approach to land use change is appropriate but with the following considerations:

- the list of default values needs to be regularly reviewed and other countries added where data is available. The definitions of the Land Use should also be reviewed alongside cropping patterns, in order to obtain more accurate default carbon intensity values. It is recognised that not all these data points are currently available and it is felt that a process needs to be put in place with suitable stakeholders to obtain this data;
- guidelines should be developed on how to apply values for countries that are not currently on the list;
- it is recognised that the impact of these calculations is difficult to assess until the scheme is operational and should be closely monitored to ensure that realistic reporting is being carried out.

***Question 15 – Are the costs of complying with the guidance as set out in the Partial Regulatory Impact Assessment for the draft Renewable Transport Fuel Obligations Order 2007 broadly correct?***

The assessment seems to be based on broadly reasonable assumptions. The true costs of compliance will not be known until the scheme is operational and a review of the impact would be beneficial to the process in order to ensure the long term future success. The benefit is in providing a framework that

underpins the environmental performance of the legislation, so long as the proposals regarding land use change are adopted. Otherwise, biofuels of unknown and potentially environmentally harmful provenance can be introduced with limited visibility of their use.

### **Conclusion**

D1 Oils has been pleased to participate in the process of drawing up the Technical Guidance for carbon and sustainability reporting under the UK's RTFO. However, we share the concern of the REA that UK policy must remain aligned with EU policy. If there is insufficient harmonisation between the two, the UK biofuel industry will be put at a definite disadvantage. We understand that the European Commission will be putting forward proposals for the development of the EU biofuels market, to include sustainability factors, in its draft Renewable Energy Directive later this year. D1 Oils will be assessing the future of the RTFO and the compatibility of the carbon and sustainability requirements in the light of these proposals.

D1 Oils also welcomes the constructive manner in which discussions have been started on the assessment of new feedstock species under this scheme. As expressed above, D1 Oils is committed to work with the relevant players in this process to make sure when new species such as *Jatropha curcas* come on stream they can contribute to the carbon savings and sustainability objectives of the RTFO.