

# **Methodology and Guidance for Carbon Reporting under the Renewable Transport Fuel Obligation**

**Project Initiation Document**

**17 November 2006**



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## Executive Summary

### Introduction

The Renewable Transport Fuel Obligation (RTFO), which will come into force in April 2008 will require companies supplying renewable transport fuels to report on both their “carbon intensity”<sup>1</sup> and their “sustainability”. This project will develop the necessary tools to enable “carbon reporting” under the RTFO, which are<sup>2</sup>:

- **A methodology for calculating the carbon intensity of a biofuel** – which will consist of a detailed description of all the calculations necessary to derive the carbon intensity for a biofuel, and will define issues such as what sources of emissions are included in the calculation, what default values are attributed to each data required, and how to deal with co-products.
- **Technical Guidance** – which will explain how to use the methodology to derive the carbon intensity of biofuels based on default values or actual data, explain the processes for reporting to the RTFO Administrator and any verification procedures which are put in place.

The Technical Guidance will only be developed for those fuel chains which are likely to play an important role in supplying the UK market during the first phase of the RTFO (2008/09 to 2011/12). On this basis the following chains will be covered in the Guidance:

- Ethanol and ETBE from: sugar cane, sugar beet, wheat and corn.
- FAME biodiesel from: tallow, used cooking oil, palm oil, soy and rapeseed
- Biomethane from anaerobic digestion of the organic fraction of municipal solid waste

Biofuels not covered by the Technical Guidance will still be granted a Renewable Transport Fuel Certificate under the RTFO if they are supplied in the UK. If a producer is planning to supply a significant quantity of biofuel from a fuel chain not included during the first phase of the RTFO, they may wish to discuss this further with the Department for Transport. A process should be put in place for developing detailed Technical Guidance for other biofuel chains that will be making a material contribution to biofuels supply in the UK.

### Approach

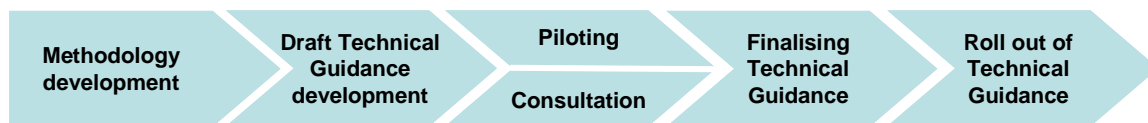


Figure 1 – The six key phases in the project.

There are six key phases to this project (illustrated above):

**Methodology development:** (Nov 06 – Jan 07) the methodology for calculating carbon intensity will be developed. This will be done in close cooperation with a group of international experts and include input from industry (see below).

**Draft Technical Guidance development:** (Jan - Mar 07) the Technical Guidance which will help companies apply the methodology to their fuel chains will be developed. Again, there will be an opportunity for input from industry (see below).

<sup>1</sup> The carbon intensity of a biofuel is a measure of all the GHGs are which emitted during the production of a biofuel – from growing the crop to distributing it to a fuel station.

<sup>2</sup> Sustainability reporting will be addressed in a separate project.

**Piloting:** (*Mar – Aug 07*) industry will be given an opportunity to pilot the methodology and Technical Guidance (see below).

**Consultation:** (*Mar – Aug 07*) this will be a formal public consultation, managed by the Department for Transport.

**Finalising Technical Guidance:** (*Aug – Sep 07*) a final version of the Technical Guidance will be prepared, based on the input received during public consultation and the understanding gained during the piloting process.

**Roll out of Technical Guidance:** (*Oct 07 – Mar 08*) following the launch of the Technical Guidance, E4tech will assist the RTFO Administrator with rolling out the guidance.

### ***Opportunities for industry and other stakeholder input***

Input from industry will play a crucial role in shaping the Technical Guidance and the underlying methodology. This project has been designed to include a number of opportunities for industry and other stakeholders (e.g. NGOs) to comment on the proposals being developed. These include: a Technical Advisory Group to the project, direct consultation with individuals from industry and other organisations, piloting of the Technical Guidance by industry, and a formal public consultation process.

### **Technical Advisory Group**

A Technical Advisory Group which includes representatives from across the biofuels industry and other stakeholder groups will review all the key deliverables. The following meetings to discuss and review deliverables have been scheduled:

- Review of draft methodology, 18 Dec 2006: Input will be sought on whether the methodology covers all significant GHG emissions and on the default values.
- Review of first draft of the Technical Guidance, 22 Feb 2007: Advisory group members will be asked to comment on the practicality and completeness of the Technical Guidance.
- Review outcomes of piloting and public consultation, 20 Aug 2007: The Advisory Group will be asked to make recommendations on changes to the Technical Guidance based on the conclusions of the piloting exercise and the public consultation.

Industry players and the broader stakeholder community are encouraged to communicate any concerns or issues directly to their representative on the Technical Advisory Group. Time constraints within the project mean that stakeholders will need to be proactive in communicating their concerns and views to the Technical Advisory Group members for them to be able to effectively represent them. The members of the Technical Advisory Group are: Clare Wenner, REA; Ian Waller, Five Bar Gate; Jean-François Larivé, Concawe; Mairi Black, HGCA; Malcolm Fergusson, IEEP; Malcolm Watson, UKPIA; Elizabeth Guttenstein, WWF International; Tamara Earley, Greenergy.

### **Direct consultation**

During the methodology development phase of the project, E4tech is planning to hold a series of focus groups to consult industry professionals on detailed aspects of the methodology. There will be seven focus groups on the following topics:

- UK/EU agriculture – farming only
- Palm oil – covering farming to crushing
- Soybean – farming to crushing
- Sugar cane – growing to ethanol conversion
- Biodiesel conversion – including oilseed rape crushing
- Ethanol conversion

- General – covering issues such as transport, co-product credits and the carbon intensity of electricity generation in different countries.

These focus groups will take place in January. E4tech will work with the Technical Advisory Group to identify participants (expressions of interest are welcome).

### **Piloting**

Between March and August 2007 industry will have the opportunity to pilot Carbon Reporting using a draft version of the Technical Guidance<sup>3</sup>. The piloting phase is expected to test the practicality of the Guidance and to identify opportunities for improving the efficiency of Carbon Reporting.

Piloting will be carried out for a maximum of six chains and will involve biofuel producers and other industry players (e.g. agricultural commodity suppliers). The following types of chains are considered for piloting:

- Ethanol – UK produced (wheat or sugar); Brazilian; ETBE<sup>4</sup>
- Biodiesel – UK (multi-feedstock plant); imported (fuel or feedstock)
- Biomethane – from the organic fraction of municipal solid waste

Those companies who are interested in being involved in the piloting are invited to a meeting in London on November 27, 2006 where more information will be provided on what the piloting process will involve. Following that meeting, companies will be invited to express an interest in piloting the Technical Guidance. Companies will be encouraged to participate as part of small consortia including a biofuel producer (as a minimum criteria) and representatives from other parts of the biofuels supply chain<sup>5</sup>. The deadline for expressions of interest will be December 22, 2006. Participants will be confirmed in early January 2007 and will be invited to a meeting on January 29, 2007 to discuss the requirements of piloting in further detail.

### **Formal public consultation**

As mentioned above, there will be a formal consultation process running in parallel with the piloting. This consultation will be managed by the Department for Transport – further details about the timing of the consultation and about which aspects of Carbon Reporting will be consulted on will be made available early in 2007.

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<sup>3</sup> Piloting of the Sustainability Reporting will be run in parallel.

<sup>4</sup> Ethyl tertiary butyl ether

<sup>5</sup> The make up of consortia could be kept confidential if necessary.

## Table of Contents

1.	Introduction .....	7
2.	Background.....	7
3.	Project Definition .....	9
3.1.	Objectives.....	9
3.2.	Scope .....	9
3.3.	Exclusions .....	9
3.4.	Approach .....	10
3.5.	Deliverables.....	10
3.6.	Constraints .....	12
3.7.	Interfaces.....	12
4.	Project Organisational Structure.....	13
5.	Communications Plan.....	16
5.1.	Project process communications .....	16
5.2.	Stakeholder communications .....	16
5.2.1.	Stakeholder Management Plan .....	18
6.	Risk Management Plan .....	20
7.	Initial Project Plan.....	22

## 1. Introduction

This is the project initiation document for the RTFO Methodology and Guidance for Carbon Reporting Project, which will develop a methodology and associated guidance for calculating and reporting the carbon intensity<sup>6</sup> of biofuels supplied under the Renewable Transport Fuel Obligation (RTFO). The purpose of this document is to define in more detail the process and content of the Carbon Reporting Project, and to establish the basis for the project's management and the assessment of its success. It builds on E4tech's project proposal<sup>7</sup> in two ways:

1. It defines in greater detail the process aspects of the project – for example, it includes a more detailed project definition, and it includes a risk management plan (Sections 3 to 6), and
2. It gives more detail on how E4tech plans to achieve the objectives of this project in certain activities (Section 7).

## 2. Background

In November 2005 the UK Government announced that it would introduce a new policy to promote the supply of renewable transport fuels, in particular biofuels – the Renewable Transport Fuel Obligation. Similar to the Renewables Obligation in the electricity sector, the RTFO will place a legal requirement on transport fuel suppliers to ensure that a specified percentage of their overall fuel sales is from a renewable source. In the first year of the RTFO (2008/09) this obligation will be set at 2.5 percent (by volume) and it will rise to 5 percent in 2011/12. The RTFO is the primary mechanism by which the UK Government will work towards the targets set by the European Biofuels Directive.

The UK Government has acknowledged that different biofuels can have very different environmental benefits in terms of greenhouse gas savings. It also recognises that the promotion of biofuels could lead to negative environmental and social impacts, such as deforestation. Accordingly, under the RTFO, those supplying biofuels will be required to report on both the carbon intensity and the “sustainability” of the biofuels they supply. This project deals only with the former.

A considerable amount of work has already been done by the Low Carbon Vehicle Partnership (LowCVP) and other organisations to develop a mechanism for establishing the carbon intensity of biofuels supplied under the RTFO.

E4tech was involved in two such projects, firstly, to assess the feasibility of environmental and social assurance linked to the RTFO<sup>8</sup> and, secondly, to develop a methodology and tool for calculating the carbon intensity of biofuels<sup>9</sup>. Other work developing methodologies for carbon certification has been carried out by ECCM<sup>10</sup> and also by the Home Grown Cereals Authority<sup>11</sup>.

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<sup>6</sup> “Carbon intensity” is a measure of the amount of greenhouse gas produced per unit of product over its lifecycle (or the major part of its lifecycle). Carbon intensity is normally expressed in units of carbon dioxide (CO<sub>2</sub>) equivalent emissions per unit of product, taking into account other greenhouse gases such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) that may also be emitted.

<sup>7</sup> Submitted to DfT during the tendering process, the project proposal and a subsequent letter to Lola Fadina at DfT (dated 18 September 2006) form part of the legal contract between E4tech and the Department for Transport.

<sup>8</sup> [http://www.dft.gov.uk/stellent/groups/dft\\_roads/documents/page/dft\\_roads\\_610366.pdf](http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_610366.pdf)

<sup>9</sup> <http://www.lowcvc.org.uk/uploaded/documents/Carbon%20methodology%20and%20tool%20-%20final.pdf>

<sup>10</sup> [http://www.greenergy.com/expertise/pdfs/Carbon\\_Declaration\\_Methodology.pdf](http://www.greenergy.com/expertise/pdfs/Carbon_Declaration_Methodology.pdf)

These studies form a useful basis from which to develop a methodology capable of analysing the fuel chains which will be used to produce biofuels for the UK market in the first years of the RTFO.

In addition to this work on methodological aspects of carbon intensity calculation and reporting, there are a large number of studies which have assessed the “typical” well-to-wheels carbon intensity of biofuels. These studies cover a number of different fuel chains in the UK, Europe and elsewhere. They contain important information which will be incorporated into the carbon certification methodology.

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<sup>11</sup> [http://www.hgca.com/document.aspx?fn=load&media\\_id=2299&publicationId=2687](http://www.hgca.com/document.aspx?fn=load&media_id=2299&publicationId=2687). And [http://www.hgca.com/document.aspx?fn=load&media\\_id=2322](http://www.hgca.com/document.aspx?fn=load&media_id=2322).

## 3. Project Definition

### 3.1. Objectives

The objectives of this project are to:

1. Develop a methodology suitable for monthly and annual reporting of the carbon intensity of biofuels supplied in the UK market.
2. Develop Technical Guidance which will enable participants in the biofuel supply chain to apply this methodology in a simple and robust manner.
3. Support the RTFO Administrator in the roll-out of Technical Guidance to participants in the biofuel supply chain.

### 3.2. Scope

The scope of the project covers three main activity areas:

- Methodology and Technical Guidance development;
- Consultation and piloting;
- Roll-out support.

This project will develop a calculation methodology that calculates the carbon intensity of biofuels produced using the following fuel chains:

- Ethanol from: sugar cane, sugar beet, wheat, corn.
- FAME biodiesel from: tallow and used cooking oil, palm oil, soy, rapeseed
- Biomethane from anaerobic digestion of the organic fraction of municipal solid waste

The methodology will be designed in a way that makes it easy to add new fuel chains in the future.

The carbon intensity methodology will be used to develop Technical Guidance that will enable participants in the biofuels supply chain to apply the methodology and report on the carbon intensity of their fuel chains.

The Technical Guidance will include advice for companies intending to use fuel chains not covered by the Guidance

As part of the project E4tech will consult stakeholders on key aspects of the methodology and will work with participants in the biofuel supply chain in order to pilot the methodology and the Technical Guidance in a real world environment. E4tech will also have some involvement in a formal public consultation on both carbon and sustainability reporting which will be managed by DfT. This involvement will include attending a stakeholder forum, reviewing comments received during the consultation period and summarising key findings in a report to the Steering Group and Technical Advisory Group

Finally, E4tech will provide support to the RTFO Administrator in the run up to the launch of the RTFO in April 2008.

### 3.3. Exclusions

Activities that are currently **excluded** from the scope of project include:

- Development of a methodology (and associated Technical Guidance) to assess the “sustainability” of biofuels supplied under the RTFO – see Section 3.7 for information on how E4tech will interact with the consultants appointed to carry out this work.

- Development of a carbon certification methodology (and associated Technical Guidance) for fuel chains which are not listed in Section 3.2.
- Support to the RTFO Administrator beyond 20 man-days in the period between 1<sup>st</sup> January and 31<sup>st</sup> March 2008 – additional support could be contracted if required.
- Development of a software tool to enable Obligated Companies and others to carry out their carbon intensity calculations electronically. This tool could be developed under a separate contract between E4tech and DfT.

### 3.4. Approach

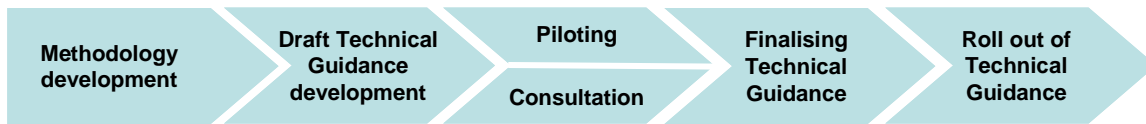


Figure 2 – The six key phases in the project.

Following project initiation, there are six key phases to this project (these are illustrated in Figure 2). The following phases will for the most part be sequential, however there will inevitably be some overlap, and some tasks will be undertaken with a long lead time:

- **A carbon reporting methodology will be developed.** This methodology will define the boundaries of the carbon intensity calculation, the steps in the different fuel chains, the calculations for deriving fuel chain emissions, and the default values to be used when actual data is not given. Industry views will be sought during this step.
- **Draft Technical Guidance will be prepared.** It will guide users through the process of applying the methodology to calculate the carbon intensity for their fuel chain or part of the fuel chain. Detailed guidance will be given for each individual fuel chain.
- **The draft Technical Guidance will be piloted** with biofuel suppliers and other supply chain participants. Attempts will be made to draw together consortia involving Obligated Companies, biofuels suppliers and other supply chain participants such as agricultural companies.
- In parallel with the piloting step, **public consultation on the Technical Guidance** will be carried out. This consultation will be managed by DfT.
- **The Technical Guidance will be finalised.** This version will integrate learning from the piloting and public consultation process.
- Following the launch of the Technical Guidance E4tech will **assist the RTFO Administrator with rolling out the guidance.** This assistance will include familiarising the Administrator with the Technical Guidance and responding to queries from supply chain participants. NOTE: this phase includes two activities previously described separately as “Roll-out of guidance” and “Pre-launch support”.

### 3.5. Deliverables

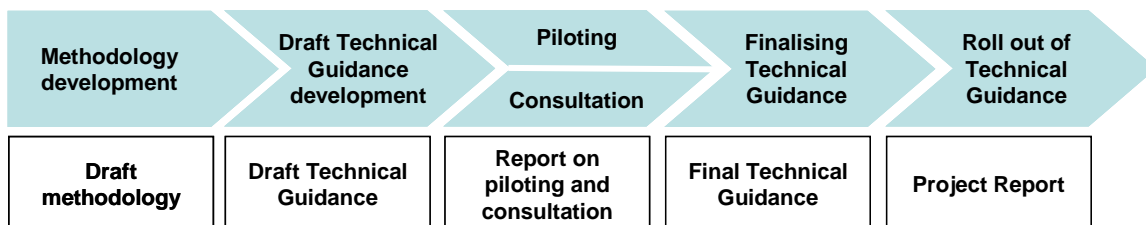


Figure 3 – The deliverables for each phase in the project

There are five deliverables for this project:

- The **draft carbon reporting methodology** will describe the individual calculations which must be carried out to establish the overall carbon intensity of a biofuel produced using any of the fuel chains described in the Scope (see Section 3.2). It will also include important definitions (e.g. of system boundaries), procedures (e.g. co-product allocation) and preliminary default values. The draft methodology will be submitted to the Technical Advisory Group<sup>12</sup> for review in mid December. Input will be sought on whether the methodology covers all significant GHG emissions and on the definition of default values. Following review by the Technical Advisory Group, key industry stakeholders will be consulted on the draft methodology – see Section 5.2 for more information. Once detailed comment from stakeholders has been incorporated, a final version of the methodology will be submitted to the Steering Group late in January.
- The **draft Technical Guidance** will be a step-by-step guide to the process of carbon reporting. It will incorporate the methodology described above, but it will be translated into a systematic procedure companies in the biofuel industry can use to guide them through the entire process of carbon reporting. It will include guidance on how and when to use default values and actual data, and processes for reporting carbon intensity to the RTFO Administrator. A first draft will be submitted to the Technical Advisory Group mid February – input will be sought on the practicality and completeness of the Technical Guidance. A second draft of the Guidance will incorporate the Technical Advisory Group’s comments and will be submitted to the Steering Group late March in time for it to be used as the basis for the piloting exercise (which will trial the practical application of the (draft) Technical Guidance by biofuels suppliers and other industry participants) and the formal public consultation (which will be managed by DfT).
- A **piloting and public consultation report** will be prepared which summarises the findings of the piloting exercise and the public consultation. This report will be submitted to the Technical Advisory Group in mid July, asking them to make recommendations on changes for the Technical Guidance on the basis of the piloting exercise and the public consultation.
- The **Final Technical Guidance** will be prepared, incorporating the findings of the piloting and public consultation exercises. This will be submitted to the Steering Group for sign-off in early August.
- A **Final Project Report** will be prepared in early 2008 to summarise key lessons learnt during the project and recommendation for future development. It will include information obtained during the project which will assist the RTFO Administrator with fulfilling its role in the carbon reporting process. A draft of the report will be submitted to the Steering Group for review in late January 2008, and a final version will be submitted mid March.

Table 1 sets out the dates when each of these deliverables will be due.

**Table 1 – Dates key deliverables are due**

Deliverable	Date
Draft carbon reporting methodology	
Draft	Mon, 11 Dec 06
Final	Mon, 15 Jan 07

<sup>12</sup> See Section 4 for further information about the Technical Advisory Group.

Draft Technical Guidance	
First draft	Thu, 15 Feb 07
Second draft	Mon, 12 Mar 07
Report on the piloting of Technical Guidance and public consultation	Mon, 13 Aug 07
Final Technical Guidance	Mon, 24 Sep 07
Final Project Report	
First draft	Thu, 17 Jan 08
Final version	Tue, 17 Mar 08

### **3.6. Constraints**

The single most important constraint for this project is the launch date for the RTFO – 15 April 2008. If Carbon Certification is to be successful in the first few months of the RTFO, Obligated Companies and biofuels suppliers will need to know the details of the scheme well before this time. The current proposal to launch the Technical Guidance in September 2007 is regarded as a minimum lead time for companies and should therefore be considered as an additional constraint.

The RTFO Sustainability Reporting project will be undertaken simultaneously with this project, and will involve a number of similar stakeholders. Coordination between the two projects will be required to ensure effective use of stakeholders' time.

The budget for the activities described in the project proposal and this project initiation document cannot be changed without the agreement of DfT and E4tech.

### **3.7. Interfaces**

The products of this project, the carbon certification reporting methodology and associated Technical Guidance, will be a direct input into the overall project to design and introduce the RTFO.

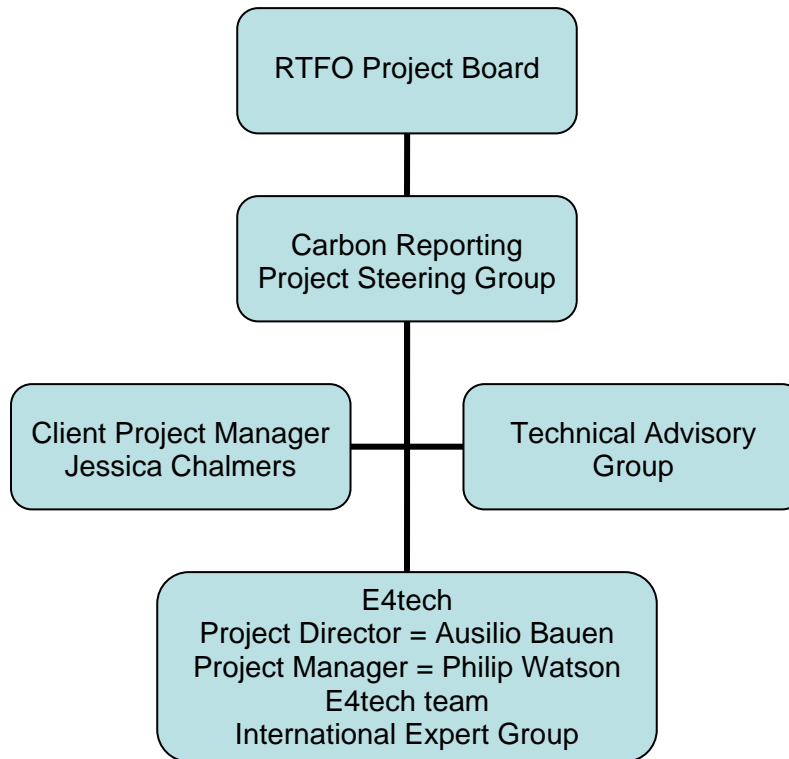
In addition to the main RTFO project, there are two other projects linked to the Carbon Reporting Project:

- **The development of sustainability reporting under the RTFO.** While the ultimate responsibility for integrating these two projects lies with DfT, throughout the project E4tech will attempt to identify and take advantage of synergies between the two projects, particularly in the areas of stakeholder consultation, piloting and when developing proposals for reporting and verification. The monthly progress reports on this project (see Section 5.1) will be circulated to the consultants working on the RTFO Sustainability Reporting project. The report will include a small section identifying areas for cooperation in the coming months.
- **The development of a carbon certification methodology by the Dutch government.** The development of carbon certification methodologies which are compatible, if not identical, is desirable for both industry and government. The Dutch government is in the process of developing a scheme similar to that of the UK. Early in the project E4tech will participate in a workshop with the consultants developing the Dutch scheme. The workshop will aim to reach agreement on certain elements of the methodology, for example, system boundaries, co-product allocation and default factors.

Should a software tool for electronic carbon intensity calculation be developed, there will clearly be very strong links between with this project.

## 4. Project Organisational Structure

The following diagram shows the structure of responsibilities related to this project. The roles of the various actors are described below.



### ***RTFO Project Board***

The RTFO Project Board is responsible for overall implementation of the RTFO, including Carbon Reporting. Greg Archer, Director of the LowCVP, is the member of the Board with responsibility for carbon and sustainability reporting.

### ***Steering Group***

The establishment and operation of the carbon (and sustainability) reporting will be overseen by a Steering Group comprising: DfT – Rupert Furness and Lola Fadina, DEFRA – Sue Finlay, LowCVP Secretariat – Greg Archer and Jessica Chalmers, DFID and the RTFO Administrator.

The Steering Group will be responsible for:

- Integration of the carbon methodology and sustainability reporting contracts
- Management of the contract delivery including progress against milestones
- Budgets
- Final signing off of the methodology and associated Technical Guidance
- Interface with the RTFO Board.

Table 2 sets out suggested timeframes for the Steering Group meetings.

**Table 2 – Suggested timeframes for Steering Group meetings**

<b>Project Phase</b>	<b>Meeting (including purpose)</b>	<b>Week beginning</b>
<b>Project Inception</b>	1 <sup>st</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review and sign-off project inception document</li> </ul>	Held: 6 Nov 2006
<b>Methodology development</b>	2 <sup>nd</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review stakeholder consultation on the draft methodology and approve the final version.</li> </ul>	22 Jan 2007 (Week 4)
<b>Draft Technical Guidance development</b>	3 <sup>rd</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review 2nd draft of Technical Guidance</li> </ul>	19 Mar 2007
<b>Piloting / Consultation</b>	4 <sup>th</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review report on piloting and public consultation to make any specific decisions is required</li> </ul>	27 Aug 2007
<b>Finalising Technical Guidance</b>	5 <sup>th</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review and sign-off final Technical Guidance</li> </ul>	1 Oct 2007
<b>Roll-out of Technical Guidance</b>	6 <sup>th</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review roll-out progress</li> </ul>	26 Nov 2007
<b>Roll-out of Technical Guidance</b>	7 <sup>th</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review roll-out progress</li> <li>Review draft Final Project Report</li> </ul>	28 Jan 2008
<b>Roll-out of Technical Guidance</b>	8 <sup>th</sup> Steering Group meeting <ul style="list-style-type: none"> <li>Review roll-out progress</li> <li>Review and sign-off Final Project Report</li> </ul>	24 Mar 2008

### ***Client Project Manager***

Jessica Chalmers, as Client Project Manager, will chair Technical Advisory Group meetings and report to the Steering Group on progress. She will also be E4tech’s main point of contact for this project.

### ***Technical Advisory Group***

The Technical Advisory Group will oversee the technical development of the guidance, in particular by providing peer review and a forum for consultation with key stakeholders. Members of the Technical Advisory Group include experts and stakeholder representatives. The Group currently includes: Clare Wenner, REA; Ian Waller, Five Bar Gate; Jean-François Larivé,

Concawe; Mairi Black, HGCA; Malcolm Fergusson, IEEP; Malcolm Watson, UKPIA; Elizabeth Guttentstein, WWF International; Tamara Earley, Greenenergy.

Table 3 sets out details of the Technical Advisory Group meetings.

**Table 3 – Proposed Technical Advisory Group meetings**

<b>Project Phase</b>	<b>Meeting (including purpose)</b>	<b>Proposed Date</b>
<b>Methodology development</b>	2 <sup>nd</sup> Technical Advisory Group meeting Review draft methodology (including default values)	18 Dec 2006
<b>Draft Technical Guidance Development</b>	3 <sup>rd</sup> Technical Advisory Group meeting Review first draft of Technical Guidance	22 Feb 2007
<b>Piloting / Public Consultation</b>	4 <sup>th</sup> Technical Advisory Group Review outcomes of piloting and public consultation	20 Aug 2007

### ***E4tech Project Director***

Ausilio Bauen, as the E4tech Project Director, is responsible for ensuring that the objectives of this project are met within the timeframes prescribed and to a high standard.

### ***E4tech Project Manager***

Philip Watson, acting as the E4tech Project Manager, will manage the activities of the E4tech team, including the group of international experts E4tech has appointed to be part of the project. He will be responsible for monitoring and reporting both risks and project progress to relevant parties and he will be the point of contact for the Client Project Manager.

## 5. Communications Plan

### 5.1. Project process communications

A monthly progress report will be provided to the Client Project Manager at the end of each month. The format of this progress report will be sufficiently flexible to meet the needs of the project team, however, as a minimum it will include: a review of progress against the project plan, a review of risks and a summary of any emerging issues, with proposals for remedial action.

All deliverables (including drafts) will be provided to the relevant people (i.e. members of the Steering Group and/or Technical Advisory Group) at least a week prior to meetings.

### 5.2. Stakeholder communications

A broad range of stakeholders are very interested in the development of this project and will be actively seeking updates on progress. Keeping them informed of the scheme will ensure that they provide useful information during the consultation phases of the project. It will also increase the scheme's likelihood of success when it is introduced in April 2008.

The majority of communication activities undertaken specifically by E4tech will be linked directly to consultation exercises. **Table 4** below lists the main communication activities which will be undertaken as part of this project.

**Table 4 – Main stakeholder communication activities**

Project Phase	Task	Date	Responsible
<b>Project initiation</b>	Launch of study, including: <ul style="list-style-type: none"> <li>description and timing of stakeholder consultation,</li> <li>invitation to meeting to discuss piloting</li> </ul>	Early November	DfT
<b>Methodology development</b>	Presentations to various industry fora to engage and raise awareness. Participation in later focus groups (see next row) will be requested. For example, Renewable Energy Association (meeting set for November 13 <sup>th</sup> ), UKPIA, NFU, AUKOI.	November	E4tech and LowCVP (linked with Sustainability Reporting project)
<b>Methodology development</b>	Stakeholder review of default values <ul style="list-style-type: none"> <li>Focus groups with industry professionals – see below for more detail</li> </ul>	December – January	E4tech
<b>Piloting</b>	Meeting with companies interested in piloting	27 <sup>th</sup> November	E4tech / Ecofys (LowCVP)*
<b>Piloting</b>	Meeting with companies taking part in the piloting to discuss detailed requirements of piloting.	Week of 29 Jan 07	E4tech / Ecofys (LowCVP)
<b>Piloting</b>	Piloting kick-off meeting between E4tech and pilot companies to discuss detailed requirements of piloting (see Section 7 for more detail on the process for piloting).	Week of 19 Mar 07	E4tech / Ecofys (LowCVP)

Project Phase	Task	Date	Responsible
Consultation	Public consultation on Technical Guidance for carbon reporting	April – June	DfT (E4tech)

\* Brackets denote involvement but not responsibility.

### ***Focus groups***

A series of focus groups with industry professionals will be held in January to review default values and data collection proposals. A provisional list of topics (with potential participants) for focus groups includes:

- UK/EU agriculture (farming only) – HGCA, NFU, individual farmers/farm advisors, certification agencies (e.g. CMI certification), academia and NGOs.
- Palm oil (covering farming to crushing) – academia, industry, the Roundtable on Sustainable Palm Oil and NGOs.
- Soybean (farming to crushing) – academia, industry and NGOs.
- Sugar cane (growing to ethanol conversion) - academia, industry, Better Sugar Initiative, and NGOs.
- Biodiesel conversion (including oilseed rape crushing) – biodiesel producers, equipment manufacturers
- Ethanol conversion – ethanol producers, equipment manufacturers
- General – this category will be needed to cover issues such as transport, co-product allocations and carbon intensity of electricity generation in different countries. Participants could include lifecycle analysis experts, agricultural supply chains experts and others.

Additional advice from the Technical Advisory Group on relevant participants would be appreciated. Members of the LowCVP Fuels Working Group will be informed of the workshops at their meeting in December in order to encourage them to recommend participants. The focus groups will have a range of formats, largely dependent on the geographic location of the participants – options include face-to-face meetings, tele-conferencing and web-conferencing.

### 5.2.1. Stakeholder Management Plan

Table 5 below summaries the key stakeholders in this project, their current view of the project (“Current Status”), how E4tech will interact with them (“Approach”), what input is required from them (“Desired Input”) and what specific actions will be undertaken to achieve that input. This plan is intended as a starting point: input from the LowCVP, the Steering Group and the Technical Advisory Group will enable the approach to different stakeholders’ needs to be refined over the course of the project.

**Table 5 – Outline stakeholder management plan**

Stakeholder	Current Status <sup>13</sup>	Approach <sup>14</sup>	Desired Input	Actions
<b>Biofuels industry (UK and international)</b> (e.g. REA, Argent Energy, Biofuels Corp, Green Spirit Fuels etc)	Critic to advocate	Manage closely	• Review of default values and processes for data collection	• Consult via industry fora and small focus groups
			• Piloting of Technical Guidance	• Involve in piloting
			• General comment on scheme	• Engage in public consultation
<b>Obligated Companies</b> (e.g. BP, Shell, ExxonMobil etc)	Supporter to advocate	Manage closely	• Review of processes for data collection	• Consult via industry fora
			• Piloting of Technical Guidance	• Involve in piloting
			• General comment on scheme	• Engage in public consultation
<b>Agricultural industry</b> (e.g. Cargill, Wessex Grain, NFU, HGCA, Farmers)	Critic to supporter	Manage closely / keep satisfied	• Review of default values relating to agricultural production and processes for data collection	• Consult via industry fora and small focus groups
			• General comment on scheme	• Potentially involve in piloting • Engage in public consultation
<b>Environmental NGOs</b> (e.g. RSPB, Forum for the Future, WWF)	Supporter to advocate	Keep informed	• General comment on scheme	• Engage in public consultation
<b>Other central government agencies / bodies</b> (e.g. DTI, EST, Ofgem)	Supporter to advocate	Keep informed	• General comment on scheme	• Engage in public consultation

<sup>13</sup> Blocker, critic, supporter, advocate

<sup>14</sup> Monitor, keep informed, keep satisfied, manage closely

Stakeholder	Current Status <sup>15</sup>	Approach <sup>16</sup>	Desired Input	Actions
Certification industry (e.g. DNV, SGS, CMI, ECCM)	Supporter	Keep informed	• Specific views on verification	• E4tech to engage with directly
			• General comment on scheme	• Engage in public consultation

<sup>15</sup> Blocker, critic, supporter, advocate

<sup>16</sup> Monitor, keep informed, keep satisfied, manage closely

## 6. Risk Management Plan

This project is not perceived as being particularly risky. Those risks which have been identified are outlined in the table below, along with the actions being taken to address the risks. These risks will be reported on in monthly reports to the Client Project Manager. The “Level of risk” has been determined by assessing the likelihood of the event occurring and the potential impact it would have on the achievement of the project’s objectives if it did occur.

**Table 6 – Risk management plan**

Risk type	Description	Level of risk <sup>17</sup>	Strategy	Actions
Negative perception of methodology	The Carbon Reporting methodology is perceived as being overly complicated. As a result, companies only use fuel default values (for example), decreasing the overall effectiveness of the scheme.	Low	Mitigate	<ul style="list-style-type: none"> <li>In all communications with stakeholders the simplicity of the methodology and the opportunity it creates will be stressed and illustrated.</li> <li>In the final Technical Guidance (and the management summary) advice will be given on how to prioritise actual data for collection (e.g. to identify the 5 data points which are likely to have the most influence the carbon intensity of a specific fuel chain).</li> </ul>
Disagreement with methodology details	Stakeholders disagree with the approach to setting default values, the values themselves and the co-product allocation procedures and attempt to disrupt or discredit the scheme.	Medium	Mitigate	<ul style="list-style-type: none"> <li>Attempts will be made early on to engage key stakeholders in discussions about approaches to setting default values. Stakeholders will also be consulted on the actual default values.</li> <li>The use of internationally renowned experts is expected to reinforce the credibility of the default values chosen.</li> </ul>

<sup>17</sup> Combined effect of probability and impact

Risk type	Description	Level of risk <sup>17</sup>	Strategy	Actions
Insufficient pilots	The correct mix of piloting companies cannot be engaged and the Technical Guidance is not trialled on a fuel chain of major importance to the UK (e.g. biodiesel from oilseed rape)	Low	Mitigate (and accept)	<ul style="list-style-type: none"> <li>A concerted effort will be made to get the right mix of companies involved in piloting the Technical Guidance – this will include inviting companies to express their interest early on in the project so that if the problem arises there may be sufficient time to try and encourage companies to take part.</li> <li>Nevertheless, if the right mix cannot be involved in piloting, the project will still proceed. In this situation, E4tech will undertake a detailed in-house review to ensure the methodology applies to all of the most important fuel chains. Such a review would include input from professionals working in the relevant fuel chains.</li> </ul>
Overwhelmed with questions about methodology	The amount of time required for answering queries on the Technical Guidance (in Activities 4 and 5) has been under-estimated and queries go unanswered	Medium	Mitigate	<ul style="list-style-type: none"> <li>If a large volume of queries appears likely, this will be signalled early on to the Project Steering Group, so that they can take remedial action if it is deemed necessary.</li> </ul>
Scope too narrow	Fuel chains emerge during the project which may enter the market in significant quantities and for which default values have not been developed	Low	Accept	<ul style="list-style-type: none"> <li>In this situation, default value definition would probably have to be undertaken via a separate contract.</li> <li>The Technical Guidance will address how to deal with fuel chains for which a detailed methodology has not been developed</li> </ul>

## 7. Initial Project Plan

Table 7 is an outline level project plan, including dates of key deliverables. A more detailed description of activities follows and a draft Gantt chart is included at the end of this section. The dates indicated should be regarded as indicative only, although there is clearly more certainty around the dates which are in the near future.

**Table 7 – Outline project plan (deliverables in italics)**

<b>Project Phase</b>	<b>Task</b>	<b>Start Date</b>	<b>End / Due Date</b>
<b>Project Initiation</b>	<i>Submit PID to Steering Group for sign-off</i>		
<b>Methodology Development</b>	Dutch / UK workshop	24 Oct 2006	30 Oct 2006
	Define calculation steps for fuel chains, identify necessary default values and selected default values	17 Oct 2006	3 Nov 2006
	Define preliminary default values (by Expert Group) and review (by E4tech team)	3 Nov 2006	11 Dec 2006
	Write draft methodology	22 Nov 2006	11 Dec 2006
	<i>Draft methodology submitted to Technical Advisory Group</i>		11 Dec 06
	Reporting and verification procedures	12 Dec 2006	19 Dec 2006
	Stakeholder review (including focus groups)	3 Jan 2006	30 Jan 2007
	<i>Final methodology submitted to Technical Advisory Group</i>		15 Jan 2007
	<b>Draft Technical Guidance Development</b>	Prepare first draft Technical Guidance	20 Dec 2006
<i>First draft of Technical Guidance submitted to Technical Advisory Group</i>			15 Feb 2007
Prepare second draft of the Technical Guidance		23 Feb 2007	12 Mar 2007
<i>Second draft of Technical Guidance submitted to Steering Group</i>			12 Mar 2007
<b>Piloting / Consultation</b>	Plan piloting	14 Nov 2006	11 Mar 2007
	Piloting carried out	19 Mar 2007	9 Jul 2007
	Public Consultation on 2nd Technical Guidance	April 2007	July 2007

Project Phase	Task	Start Date	End / Due Date
	<i>Piloting and Public Consultation outcome report submitted to Technical Advisory Group</i>		13 Aug 2007
<b>Finalising Technical Guidance</b>	Integrate findings of piloting and public consultation exercises into Technical Guidance	28 Aug 2007	24 Sep 2007
	<i>Final Technical Guidance submitted</i>		24 Sep 2007
<b>Roll out of Technical Guidance</b>	Prepare for roll-out	25 Sep 2007	21 Oct 2007
	Guidance issued (by RTFO Administrator)		22 Oct 2007
	Assist with roll-out of guidance	23 Oct 2007	28 Mar 2008
	Prepare a draft of the Final Project Report	18 Dec 2007	24 Jan 2008
	<i>Draft Final Project Report submitted to Steering Group</i>		24 Jan 2008
	Prepare final version of the Final Project Report	3 Mar 2008	17 Mar 2008
	<i>Final Project Report submitted to Steering Group</i>		17 Mar 2008

## ***Methodology development***

### **Dutch / UK workshop**

1. Participate in a workshop with consultants developing a similar Carbon Reporting scheme for the Dutch Government. The objective of the workshop is to reach some level of agreement on the methodologies used for Carbon Reporting, in particular relating to key aspects of the methodology (e.g. system boundaries, co-product allocation and default value setting).

### **Define calculation steps for fuel chains, identify necessary data inputs and default values**

1. Review approaches to default value definition and select an approach (Expert Group members will be involved in this process)
2. Define the different steps in each of the ten fuel chains considered (e.g. crop production, pre-processing, etc), identify necessary data inputs (Expert Group following guidance provided by E4tech).
3. E4tech to review fuel chain definition by Expert Group to establish whether the modules currently defined are adequate to cover all fuel chains, establish what default values are necessary and where "selected default values" could be defined.

### **Define preliminary default value and actual data requirements (by Expert Group) and review (by E4tech team)**

1. Expert Group define default values (including information about how frequently data needs to be updated) for each fuel chain, including (Note: the names of the different types of default value are provisional only):
  - 1.1. Fuel defaults – when only the fuel type is known.
  - 1.2. Origin defaults – when the feedstock used to produce the fuel and/or the country/region of origin are known.
  - 1.3. Module defaults – when companies involved in the reporting know the different steps in the fuel chain (e.g. crop production, transport, pre-processing etc), but don't have any actual data or other information related to those steps.
  - 1.4. Input level default values – Defaults or selected defaults will be defined for all data needed to calculate the fuel chain emissions. Selected defaults could include, for example, different default data based on type of primary energy input to conversion plant, tillage technique used, mode of transport used etc. Default values could be replaced by actual data (e.g. crop yields, actual conversion plant energy use etc).
2. Where relevant provide suggestions for actual data input – answering question such as: how often should data be provided? Is data needed from all actors in the supply chain, or only samples? How can a system be designed that is fair to actors of different sizes?
3. E4tech critically review Expert Group's work to ensure consistency of approach and rigour.
4. Recommend timeframes for periodic review of individual default values (based on potential for changes in practice and improvements in scientific understanding).
5. Select tank to wheels figures for the following engine types:
  - 5.1. Petrol, biomethane: port injection spark ignition
  - 5.2. Diesel: direct injection compression ignition

### **Write draft methodology**

1. Write draft methodology
2. Carry out internal E4tech review
3. Finalise draft methodology
4. Submit to Technical Advisory Group

***Deliverable: Draft methodology submitted to Technical Advisory Group***

### **Reporting and verification procedures**

1. Carry out desk-based research to address the following questions:
  - How is data passed to other actors in the supply chain?
    - In what form (paper or electronic) would data be supplied?
    - How often would it be supplied?
    - Who would be responsible for aggregating data from different supply chains?
  - How are the final results reported to the RTFO Administrator?
    - How often would Obligated Companies do this?
    - Would it be required before or after certificate issue?
    - Would suppliers report on single or multiple batches or as an average for whole supply routes?
    - Would reporting requirements for Obligated Companies change from the first to subsequent years?
    - Who would be responsible for ensuring that the correct methodology including up to date default values had been used throughout?
    - How would this reporting fit with wider environmental and social reporting?

- Are there issues of cross compliance with other GHG certification methodologies e.g. other EU schemes, EU ETS and CDM?
  - How could commercially sensitive information be protected?
  - How can the data be independently verified?
    - How often would verification be needed?
    - Who would verify data at each stage of the supply chain?
    - Who would accredit the verifiers?
2. Hold a workshop with LowCVP, the Sustainability Reporting consultants and the DfT RTFO team to discuss and reach agreement on the questions outlined above.

#### **Stakeholder review (focus groups)**

1. Consult stakeholders, including the Technical Advisory Group and the LowCVP Fuels Working Group, on steps in each fuel chain and default values.
2. Hold a series of small focus groups with industry specialists and practitioners to review fuel chain steps and default values. These focus groups will take a range of different formats depending on the people involved (and where they are based). See Section 5.2 for further details.

#### **Finalise Methodology**

1. Integrate comments from the Technical Advisory Group, relevant material from the Reporting and Verification workshop and the stakeholder focus groups into the final methodology.

### ***Draft Technical Guidance Development***

#### **Prepare draft Technical Guidance**

1. Prepare draft of Technical Guidance
2. Submit to Client Project Manager for review
3. Integrate comments from Client Project Manager

<b><i>Deliverable: First draft of Technical Guidance submitted to Technical Advisory Group</i></b>
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#### **Prepare second draft of Technical Guidance**

1. Integrate comments from Technical Advisory Group
2. Submit to Client Project Manager for review.
3. Integrate comments from Client Project Manager.

<b><i>Deliverable: Second draft of Technical Guidance submitted to Steering Group</i></b>
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### ***Piloting of the draft Technical Guidance***

#### **Plan piloting**

1. DfT invite companies to a meeting for companies interested in piloting
2. Hold meeting for companies interested in piloting the draft Technical Guidance to inform them of the piloting process and to try to encourage joint expressions of interest from Obligated Companies and biofuels suppliers.
3. Engage additional participants in piloting if, following a suitable period, an appropriate mix of companies have not expressed an interest.
4. Confirm companies' participation in the piloting exercise and provide participants with more detailed information on the requirements of the piloting exercise.

5. Hold a meeting with all the companies involved in piloting the Technical Guidance to provide more detail on how the pilots will be carried out, the expected outputs and the resources required from companies involved.
6. Hold a kick-off meeting with all the companies involved in piloting to discuss the detailed requirements of piloting.

#### **Piloting carried out**

1. Companies commence piloting the Technical Guidance – they will be given a set period of time to work through the Guidance to define their supply chain and to identify where they already know the actual data, where they will use default values and where they would collect data from suppliers. E4tech will keep in regular contact with the piloting companies to monitor progress and the potential for slippage (e.g. phone call every 1 to 2 weeks).
2. Hold a meeting between E4tech and each of the piloting companies to review progress and make any suggested changes to the proposed approach. E4tech will pay particular attention to identifying opportunities for using actual data in the carbon intensity calculation. Attention will also be paid to integration between carbon certification and reporting.
3. Piloting companies complete piloting exercise.
4. Evaluate the companies experience in applying the Technical Guidance.
5. Report to the Technical Advisory Group and the Steering Group on the findings of the piloting exercise, and the implications for the Technical Guidance.

### ***Public consultation on the draft Technical Guidance***

#### **Public Consultation on 2nd Technical Guidance**

1. Attend stakeholder workshops on the Technical Guidance
2. Review findings of the stakeholder consultation
3. Include a review of comments received during the public consultation, and the implications for the Technical Guidance, in the report on piloting and public consultation.

***Deliverable: Piloting and Public Consultation outcome report submitted to Technical Advisory Group***

### ***Finalise Technical Guidance***

#### **Prepare Final Technical Guidance**

1. Integrate findings of the piloting and public consultation exercises into the final version of the Technical Guidance – in close cooperation with the Client Project Manager and Steering Group

***Deliverable: Final Technical Guidance submitted***

### ***Roll-out of Technical Guidance***

#### **Prepare for roll-out**

1. Prepare web pages for the RTFO website relating to Carbon Reporting – including, for example, an introduction to why Carbon Reporting is necessary, a methodology description, practical information on how the Technical Guidance works and a frequently asked questions section.
2. Prepare a short summary of the Technical Guidance aimed at senior management in Obligated Companies and biofuel suppliers.

3. Write to stakeholder organisations in the UK and internationally, and encourage them to a) publish advice on carbon reporting for their members (including, for example, advice on the use of actual data versus default values, and how key opportunities for reducing the carbon intensity of different fuel chains), and b) hold information sessions for their members (e.g. National Farmers Union, Renewable Energy Association, Environmental Industries Commission).
4. Provide training for the RTFO Administrator on the operation of the guidance, including:
  - 4.1. An annotated version of the Technical Guidance, highlighting potential compliance issues, supplied to the Administrator.
  - 4.2. A workshop to brief the RTFO Administrator on the Technical Guidance and its implication for their role.

### **Guidance issued**

#### **Assist with roll-out of guidance**

1. Respond to written queries on the Carbon Reporting Methodology and Technical Guidance from Obligated Companies and other participants in the supply chain.
2. Provide material to the RTFO Administrator to enable them to update the RTFO website, to reflect questions raised by Obligated Companies or other supply chain participants.
3. Review pathway-specific factors or approaches that companies wish to use as part of their reporting submissions if required. Strict criteria will be placed on which factors or approaches are reviewed (e.g. value is added to more than one company), to ensure that companies are not exploiting the process.

#### **Prepare first draft of the Final Project Report**

1. Discuss structure and likely conclusions with DfT, RTFO Administrator and LowCVP.
2. Prepare first draft.
3. Submit to Client Project Manager for review
4. Integrate comments from Client Project Manager

**Deliverable: Draft Final Project Report submitted to Steering Group**

#### **Prepare final version of the Final Project Report**

1. Integrate comments from Steering Group
2. Submit to Client Project Manager for review
3. Finalise report.

**Deliverable: Final Project Report submitted to Steering Group**