

# Base Protocol Plan for Biofuels Production & Usage

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Fast Track Protocol Development Process

**Submitted: September 2008**

This document has been prepared by Blue Source Canada ULC on behalf of the Industry  
Provincial Offset Group Working Group 12: Biofuels.

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## Part I: Identification of the Protocol Developer

### 1.1 Title of the Base Protocol:

**Quantification Protocol for The Production and Usage of Biofuels**

### 1.2 Lead Protocol Developer

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### 1.3 Initiating Entity

<b>Organization:</b>	Industry Provincial Offset Group Working Group 12: Biofuels
<b>Name:</b>	Working Group Chair: Fred Ghatala
<b>Title:</b>	Assistant Director, Plant Operations
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### 1.4 Rationale for initiating the development of the protocol:

There is industry support behind the development of this protocol and a recognized opportunity to generate greenhouse gas offset credits.

Through the Industry Provincial Offset Group, members strive to ensure that protocols are:

- Based on a complete life-cycle analysis with consideration of all relevant GHG sources and sinks
- Consistent in their treatment of cross-cutting issues
- Based on accurate and unbiased best science and best practice guidance
- Fully transparent; and
- Conservative so as to ensure that environmental integrity is maintained.

## Part II: Base Protocol Applicability and Development Approach

### 2.1 Description of the Project Type:

Biofuel projects may result in emission reductions from the avoidance of fossil fuel consumption, replaced by biofuels on an equivalent energy potential basis. They may also specifically include reductions in GHG emissions due to any heat/power production and electricity generation related to the process, and from the avoidance of landfilling any materials which may be diverted for conversion to biofuel.

Biofuels can include charcoal, bio-diesel, ethanol, and other similar gas, liquid and solid fuels from renewable sources. These biofuels can be blended with other fuels, including fossil fuels, prior to final use.

### 2.2 Description of Project-specific Technology (if applicable)

N/A

### 2.3 GHG(s) that will be reduced:

- CO<sub>2</sub>;
- CH<sub>4</sub>; and
- N<sub>2</sub>O

### 2.4 Description of how real reductions will be achieved:

The opportunity for generating carbon offsets with this protocol arises mainly from the indirect reductions of greenhouse gas (GHG) emissions from displacing a proportion of fossil fuels with biofuel products in liquid fuel blends. However, some opportunities from reduced feedstock transportation, or onsite heat/power production and other practices are allowed in the flexibility of this protocol

### 2.5 Base Protocol Flexibility (optional):

Flexibility in applying the quantification protocol is provided to project developers in six ways:

1. The heat and power production component of the process may be dealt with outside the scope of the protocol as part of a *Waste Heat Recovery* protocol. However, the project developer must justify the separation of this component of the project to ensure that the emission reductions are properly quantified between the two projects and that double counting does not occur;
2. The heat and power production component of the project may provide some or all of the heat and power requirements for the facility. Flexibility is provided in terms of allowing the broadening of the project scope to include existing, new, or

- retrofitted supplementary heating both on and off site to meet the project energy load;
3. In cases where the project developer wishes to quantify the emission reduction from reduced transportation requirements for the biofuel, then the source and sinks for GHGs (P9, P11 and B13) must all be quantified;
  4. Site specific emission factors may be substituted for the generic emission factors indicated in this protocol document. The methodology for generation of these emission factors must ensure accuracy; and
  5. In cases where the diversion of feedstocks from landfill cannot be verified, the diversion of feedstocks from landfill components of the project may be ignored in both the baseline and project conditions.

The project proponent will have to justify their approach in detail to apply any of these flexibility mechanisms.

## 2.6 Federal, Provincial/Territorial Legal Requirements & Climate Change Incentives

### 2.6.1 List of potentially relevant requirements:

- The Province of British Columbia: Low Carbon Fuel Standard
- The Province of Ontario: Renewable Fuel Standard
- The Province of Manitoba: Renewable Fuel Standard
- The Province of Saskatchewan: Renewable Fuel Standard
- The Canadian Federal Renewable Fuel Standard

### 2.6.2 List of potentially relevant climate change incentives:

- ecoENERGY for Biofuels
- Alberta's 9-Point Bioenergy Plan
- Saskatchewan's Biofuels Investment Opportunity (SaskBIO)
- Manitoba's Gasohol Incentive
- Ontario's Ethanol Growth Fund

## 2.7 Building on existing protocols or proprietary information (if applicable)

Registered name of protocol:	Quantification Protocol for Biofuels Production and Usage
System for which protocol was developed:	Alberta Offset System
Date protocol was completed and approved:	October 2007
Developer of the protocol	

Name:	Keith Driver
Organization:	Blue Source Canada ULC

## 2.8 Explanation of how the existing protocol will be adapted:

The existing seed protocol will be adapted through an inclusive, transparent and consistent process coordinated through the Industry Provincial Offset Group's (IPOG) broad membership. In particular, work will be conducted by a protocol technical working group formed specifically to address adaptation of the protocol in question and potentially other related protocols. Cross-cutting issues groups will also be formed to address issues affecting a range of protocols, and to ensure consistency in approach.

### **Adaptation of the existing protocol will follow the multi-step process outlined below:**

- Collection of technical and background information related to development, review and approval of the protocol to ensure transparency through the adaptation process;
- Review of the protocol to ensure consistency with Canada's "Turning the Corner" action plan and the requirements of the federal offset system. Any areas of inconsistency with the protocol documentation will be identified in this step;
- Review of existing provincial and federal regulations that could impact the surplus nature of the emission reductions from the project activity. This phase will serve to address the surplus requirement relative to applicable federal and provincial legislation;
- Review of the seed protocol's baseline condition to address the incremental nature of the project activity in the Canadian context. This review will include an assessment of the baseline's compatibility with Canadian best practices and potential alternative baseline approaches;
- Review of the protocol to ensure the quantification methodology is consistent with best practice guidance, and applicable to the range of Canadian geographical and climatic conditions;
- Review of the protocol's measurement and monitoring requirements to ensure they are reflective and reasonable in the Canadian context. This will include a review of data collection requirements and frequency of measurement and monitoring;
- Consideration of other environmental impacts and criteria air contaminants, as required by the "Turning the Corner" action plan;

- Additional analysis to address any outstanding issues identified to date that may present a significant challenge to protocol adaptation. This step will include assembly of the technical working group to drive further analysis;
- Redrafting of protocol to address technical issues identified in the previous steps and to ensure it meets the technical and format requirements of the Canadian offset system;
- Review of any material changes made to the quantification approach using project data to ensure the revised methodology is generally consistent with the original documentation;
- Cross-protocol review of the adapted protocol with other protocols adapted by IPOG, to ensure consistency in scope and approach to quantification;
- Compilation of documents required for submission of the final draft protocol to Environment Canada for approval. The results of all stages of the review and adaptation process will be summarized and compiled to support Environment Canada's review.

Given the volume of work required under short timelines, multiple agencies will be required to provide a range of technical inputs, perspectives and capacity. To accomplish required tasks and meet timelines, technical resources within IPOG will be mobilized to provide input; drawing on group member's significant experience in protocol and project development.

IPOG will draw on the experience of Climate Change Central to manage the adaptation process and to ensure broad stakeholder involvement by parties that may not be comfortable working directly with IPOG.

## **2.9 Explanation of the nature of the proprietary information and how it might be used in the Base Protocol:**

We are anticipating full disclosure and transparency, therefore no proprietary information should be required.

### **Part III: Declaration / Consent / Signature**

The undersigned acknowledges that the undersigned has read, understood and that the undersigned agrees to abide by all the terms, conditions, instructions, and notices set out in the Guide for Protocol Development.

The undersigned acknowledges that the review of, and comments regarding, this base protocol plan or portions thereof does not ensure that the base protocol plan or portions thereof will be used in an Offset System Quantification Protocol by Canada's Offset System for Greenhouse Gases.

The undersigned is legally authorized to use any and all proprietary (or protected) information found in and submitted with the base protocol plan.

The undersigned is duly authorized to sign this application.

The undersigned declares that the base protocol plan submitted for Canada's Offset System for Greenhouse Gases and the information provided on, with or pursuant to this application is true, accurate and complete.

The undersigned consents to the public disclosure, in any manner including, without limitation, posting on Offset System website, of all the information in the base protocol plan and the information submitted with the base protocol plan.

By protocol developer (individual, or an organization's or a corporation's duly authorized representative, date, name, title)

By: **BLUE SOURCE CANADA ULC**

Name: **KEITH DRIVER**

Title: **VICE-PRESIDENT, OPERATIONS  
BLUE SOURCE CANADA ULC**

Signature: \_\_\_\_\_

Signed this \_\_\_\_ day of \_\_\_\_\_, 2008