

# Draft Quantification Protocol for Freight Modal Shifting

## Alberta GHG Offset System Expert Technical Review

Process Overview Document – Nov 15, 2007

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### Background

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The Delphi Group, on behalf of the Canadian National Railway Company, has developed a protocol for quantifying the GHG emission reduction benefits of shifting freight transportation from truck to rail. This protocol has been customized for the Alberta-specific context so that it can be submitted, and ultimately approved, as a GHG protocol for use in creating GHG offset credits within the Alberta system.

### Purpose and Requirements of the Technical Review

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As part of the Alberta protocol approval process, protocols must undergo a technical review during their development and prior to submission to the Alberta government for approval. The technical review is to be conducted to according to the requirements laid out in the Alberta Protocol Development Process outlined on [www.carbonoffsetsolutions.ca](http://www.carbonoffsetsolutions.ca)

Specifically, participating technical experts are to include federal/provincial government scientists (including those involved with National Inventory methodologies); academics, engineers and scientists in private industry; and project developers with technical expertise in the area.

To guide the Technical Review, four principles should be adhered to:

- Environmental Integrity
- Usability-reasonableness (to balance off the environmental integrity)
- Adapting precedent set elsewhere
- Life Cycle analysis (as outlined by the ISO 14064 framework)

The technical review process is to be fair, transparent, unbiased and where consulted parties are heard and their concerns considered. This process needs to demonstrate that a consensus was reached on the major issues (consensus defined by no sustained objection) for the protocol to be accepted by the Alberta government for consideration.

### Expert Technical Review Approach and Participants

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#### *Overall Approach*

The approach for the technical review for the protocol was as follows:

- Identify and contact potential participants
- Confirm participation and circulate prior to the technical review session:
  - An outline of the technical review process
  - A draft version of the protocol (a text document)

- A draft version of a companion spreadsheet calculator based on the protocol
- A draft list of questions to be considered during the technical review (identified by the protocol development team)
- Hold the technical review teleconference and document the proceedings
- Based on received verbal and written feedback, update the protocol and circulate the revised protocol along with a list of comments and an explanation of how feedback was considered and reflected in the revised protocol.
- Allow three business days for participants to review the revised protocol and indicate if any sustained objections remain.
- Address any final issues, and submit protocol to Alberta Government.

**Key milestone dates:**

- Draft protocol documents sent to confirmed participants: Wed. Oct 31, 2007
- Expert technical review teleconference: Mon. Nov 5, 2007
- Revised protocol documents sent to participants: Fri. Nov 9, 2007
- Final revisions made to protocol documents: Wed. Nov 14, 2007
- Protocol documents submitted to Alberta Government: Thurs. Nov 15, 2007

**Identification of Participants**

Technical experts meeting the general criteria noted above were identified by considering organizations and individuals having one or more of the following qualifications:

- Experience with the trucking, rail and/or freight-shipping industries in general
- Experience with transportation GHG emissions in general, and truck and rail emissions in particular
- Experience with data management associated with truck and rail freight shipping
- Experience preparing GHG quantifications / emission quantifications according to ISO14064-2 or similar standards / best practices, for transportation or other projects.
- Alberta-specific experience with any of the above

The following table summarizes all experts invited to participate in the technical review, along with the extent to which they participated.

**Table 1: List of Expert Technical Review Invitees and Level of Participation**

| Name   | Affiliation  | Expertise  | Level of Participation  | Feedback Provided?  | email                           |
|--|--|--|---|---|---------------------------------|
| <b>Government</b>                              |  |  |   |   |                                 |
| Pascale Bellavance                             | Environment Canada   | GHG transport emissions  | Unable to attend teleconference, but willing to review document and provide feedback. | No feedback provided for technical review. However, provided limited feedback as part of an internal technical review held mid-2007 | pascal.bellavance@ec.gc.ca      |
| Sarah Radovan                                  | Natural Resources Canada, Technology Early Action Measures | GHG expert   | Unavailable for technical review  | n/a   | SRadovan@NRCan.gc.ca            |
| Sarah Froman                                   | USEPA  | General transportation   | Unable to attend teleconference, but willing to review document and provide feedback. | No comments provided.   | Froman.Sarah@epamail.epa.gov    |
| Mondher BenHassine                             | Transport Canada   | Transportation emissions   | Participated in teleconference  | Feedback related to trucking emissions provided   | BENHASM@tc.gc.ca                |
| André Bourbeau                                 | Transport Canada   | Transportation emissions   | Participated in teleconference  |   | BOURBEA@tc.gc.ca                |
| Janin Huard                                    | Transport Canada   | Transportation emissions   | Participated in teleconference  |   | HUARDJ@tc.gc.ca                 |
| <b>Transport / Shipping Industry Expertise</b> |  |  |   |   |                                 |
| Ken Roberge                                    | CP Rail  | Rail industry expert   | Participated in teleconference  | Verbal comments provided.   | Ken_Roberge@cpr.ca              |
| Kim Royal                                      | Flying J   | Previous Executive Director of the Alberta Motor Transport Association | No response   | n/a   | kim.royal@flyingj.com           |
| Roy Craigen                                    | Transcom   | Trucking industry / fleet training                                     | Participated in teleconference  | Verbal and written comments provided.   | transcom@telus.net              |
| Peter Eggleton                                 | Private Consultant   | Rail industry expert; compiler of annual rail emissions data           | Participated in teleconference  | Verbal and written comments provided.   | peter.eggleton@videotron.ca     |
| Envirochem                                     | Envirochem Services  | Preparing transport emissions study for Transport Canada               | No response   | n/a   | response@envirochem.com         |
| Roger Smith                                    | Fleet Challenge Consulting Group Inc.                      | Trucking / fleets  | Unable to attend teleconference, but willing to review document and provide feedback. | No comments provided.   | rogersmith@energyefficiency.org |



| Name                | Affiliation                        | Expertise                         | Level of Participation  | Feedback Provided?   | email                            |
|---------------------|------------------------------------|-----------------------------------|---|--|----------------------------------|
| John Rilett         | Climate Change Central             | Transportation, fleets            | Unavailable for technical review  | Provided feedback as part of an internal technical review held mid-2007. | jrilett@climatechangecentral.com |
| Elsbeth Vaino       | Saving Green                       | General transportation, emissions | Unavailable for technical review  | Provided feedback as part of an internal technical review held mid-2007. | evaino@beinnovativegroup.com     |
| <b>GHG Expert</b>   |                                    |                                   |   |  |                                  |
| Steve Young         | GHGm.com / University of Waterloo  | GHG expert, LCA expert            | Participated in teleconference  | Verbal comments provided during teleconference                           | sby@GHGm.com                     |
| Pierre Boileau      | Canadian Standards Association     | GHG expert                        | Participated in teleconference  | Verbal and written comments provided.                                    | pierre.boileau@csa.ca            |
| Jamie Callendar     | Baseline Emissions Management Inc. | GHG expert                        | Unable to attend teleconference, but willing to review document and provide feedback. | Written comments provided.   | Jamie@baselineemissions.com      |
| <b>Project Team</b> |                                    |                                   |   |  |                                  |
| Normand Pellerin    | CN Rail                            | Protocol Sponsor                  |   |  | NORMAND.PELLERIN@cn.ca           |
| Erika Akkerman      | CN Rail                            | Protocol Sponsor                  |   |  | Erika.Akkerman@cn.ca             |
| Stephan Wehr        | The Delphi Group                   | Lead Protocol Author              |   |  | swehr@delphi.ca                  |
| Joe Rogers          | The Delphi Group                   | Supporting Protocol Author        |   |  | jrogers@delphi.ca                |

## **Recommended Participants for Broader Stakeholder Review**

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To date, review of the protocol has been limited to an expert technical review (Steps 3 & 4 of the Alberta protocol approval process). It is recommended that the following stakeholder groups be included in the broader stakeholder review required as part of Step 6 of the protocol approval process:

- Representatives from trucking associations (e.g. the Alberta Motor Transport Association)
- Potential project proponents (i.e. companies current engaged in shipping goods likely to use the protocol – could be drawn from existing CN / CP Rail clients)
- Environmental non-governmental organizations (e.g. Pembina)
- Representatives from the auditing / verification community
- Representatives from Alberta Infrastructure and Transportation