BRITISH COLUMBIA	**Ministry of Energy and Climate Solutions** *Issued: June 2024*	Low Carbon Fuels Act **Use of Alternative Methods for Determining Carbon Intensities** **Information Bulletin RLCF-025.**

Applicability

This guide is for fuel manufacturers who wish to quantify the carbon intensity of their fuel and submit a carbon intensity application for review but also believe that the prescribed version of GHGenius does not accurately quantify the carbon intensity of their fuel.

Determining Carbon Intensity

The Low Carbon Fuels (Technical) Regulation (LCFTR) outlines how a carbon intensity of a fuel should be determined for use under the BC Low Carbon Fuel Standard (LCFS) and plays a vital role in ensuring fairness and consistency in evaluating the lifecycle carbon intensity across all fuels reported under the LCFS. Schedule 3 Table 3 of the LCFTR outlines ten crucial stages of a fuel lifecycle that are fundamental for assessing the carbon intensity. Section 12(2) of the LCFTR specifies the GHGenius model as the standard tool for conducting this assessment and Section 1 of the LCFTR defines the version of GHGenius to be used for assessing the carbon intensity of a fuel. See Information Bulletin RLCF-011 (Approved Version of GHGenius and Global Warming Potentials) for more information.

Alternative Methods

In cases where fuel manufacturers believe that the current version of GHGenius without modification does not accurately quantify all stages of their fuel's carbon intensity, they may apply to use an alternative method. Section 21(3)b of the Low Carbon Fuels Act (LCFA) stipulates that a carbon intensity using an alternative method may be published, provided the director accepts the method as a more precise determination of the carbon intensity of the fuel and the method is developed and proposed in accordance with the LCFTR. The director is responsible for scrutinizing the rationale behind proposed alternative methods on a stage-by-stage basis, as mandated by the LCFTR.

Responsible parties seeking approval for an alternative method must submit a comprehensive written submission detailing the rational, specific conditions for application, modifications made to the GHGenius model, identification of affected stages within the lifecycle assessment, input data requirements, methodology employed, and a comparative analysis between the approved GHGenius version and

the alternative method. Note that the current version of GHGenius without modification should be relied on as much as possible, with an alternative method only used when needed to account for primary data.

This comprehensive process ensures transparency and accuracy in determining the carbon intensity, aligning with the regulatory standards as outlined in the LCFTR.

Submission Requirements

In seeking approval for an alternative method, responsible parties must provide a detailed written submission which includes the following:

1. **Identification information** specified in Section 15(1) and referenced in Section 12(3)b of the LCFTR:
    - the legal name of the person who submits the proposed alternative method, the operating name of the person, the telephone number of the person, the person's address for service (must include both a postal address in BC and an email address) the address in BC at which records are maintained for the purposes of Section 27 of the LCFGR.
2. **Specific Conditions for Application:**
    - Provide a complete list of requirements that will allow the consistent application of the alternative method.
3. **Modifications to GHGenius Model:**
    - Identify and describe all modifications to data or calculation formulas within the GHGenius model required to accurately quantify the carbon intensity.
4. **Identification of Stages:**
    - Define which stage(s) of the lifecycle assessment, as specified by Schedule 3 Table 3 of the LCFTR, are influenced by the modifications made to the GHGenius model.
5. **For Each Identified Stage, Include:**
    - **Input Data:** Description of the necessary input data for assessing the carbon intensity of each stage.

- **Model Output using GHGenius:** Determination of the carbon intensity using the currently approved GHGenius model. If GHGenius cannot model certain pathways, provide an explanation.
- **Methodology and Output of Alternative Method:** Thoroughly explain the alternative method employed and calculate the carbon intensity of each selected stage using this method.
- **Comparative Analysis:** Provide a quantitative comparison of outputs from both GHGenius and the alternative method, supported by a rationale explaining the alternative method's superior accuracy in determining the carbon intensity. Where a quantitative comparison is not feasible, provide a rational justification.

Publication of Alternative Methods

The Low Carbon Fuels (General) Regulation (LCFGR) allows publication of proposed alternative methods. This enables alternative method proposals to be published for public review prior to use by the applicant and allows the alternative method to be used by other fuel manufacturers, if applicable, once approved. This helps to ensure fairness of methods used for quantifying the carbon intensity between fuel manufacturers using similar technologies or pathways.

Acceptance or Rejection of the Alternative Method

If the proposed alternative method is accepted, the applicant needs to submit a carbon intensity application (provided they have not done so already) and then the application will be processed similarly to applications that do not include the use of an alternative method. See the Low Carbon Fuel page for more information on the carbon intensity application process. If the proposed alternative method is rejected the director will provide the reasons in writing, as per Section 21(4) of the LCFA.

Need more information?
Please visit the Renewable & Low Carbon Fuels website or email the Low Carbon Fuels Branch at lcfs@gov.bc.ca.

This information is for your convenience and guidance only and does not constitute legal interpretation of the legislation. The Low Carbon Fuels Act, Low Carbon Fuels (General) Regulation and Low Carbon Fuels (Technical) Regulation are accessible at: http://www.bclaws.ca.