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# CLEAN FUEL STANDARD - UPDATE

June 2, 2020  
CFS FPT ADM Committee



Canada 

# OBJECTIVE

- Announced in 2016 as part of the Pan Canadian Framework on Clean Growth and Climate Change
  - Clean Fuel Standard aims to address 3 objectives
    - Reduce GHG emissions by lowering the lifecycle carbon intensity of fuels used in Canada
    - Stimulate investment/innovation in low carbon fuels & technologies
    - Minimize compliance costs through flexible compliance options
  - Clean Fuel Standard will establish annual lifecycle carbon intensity requirements separately for different fuel classes (solid, liquid and gaseous)
    - Lifecycle approach means reductions can happen during extraction, production, distribution and use
  - Phased approach to regulating fuel classes
    - **Phase 1: liquid fuels (gasoline, diesel) used in mainly in transportation**
    - Phase 2: gaseous fuels (natural gas) and solid fuels (petroleum coke) used mainly in industry and buildings
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# TIMING UPDATE

- In recognition of the unprecedented circumstances in the context of COVID-19, Environment and Climate Change Canada has decided to delay the publication of the proposed Clean Fuel Standard regulations for the liquids class in *Canada Gazette*, Part I.
- The new timelines are reflective of current operational constraints:

## Phase 1: Liquids Class Regulations

- Proposed regulations will be published in *Canada Gazette*, Part I fall 2020, followed by a 75-day consultation period
- Final regulations will be published in *Canada Gazette*, Part II in late 2021
- Requirements will come into force in 2022

## Phase 2: Gaseous Class and Solid Class Regulations

- Will follow timeline for the liquid fuel regulations + approximately 12 months

# ENGAGEMENT

- Since the publication of the Proposed Regulatory Approach in June 2019, ECCC has continued to refine some key design elements of the liquid class regulations.
    - reflective of the valuable input received in response to the June 2019 publication
  - ECCC is engaging provincial / territorial colleagues and the Clean Fuel Standard Technical Working Group on these design elements.
  - This includes regulatory design elements that:
    - were outlined at a high-level in the Proposed Regulatory Approach and we now have more detail to share
    - have evolved since the Proposed Regulatory Approach was published
  - 6 Technical Working Group meetings and 1 Multi-Stakeholder Consultative Committee meeting are scheduled throughout the month of June.
    - provincial / territorial colleagues are welcome to attend any of these sessions
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# ENGAGEMENT

	Meeting Date	Topic	Comments Requested By
<b>1</b>	Thursday, June 4, 2020	Overview of Process / Timelines, update on LCA Model	June 25
<b>2</b>	Tuesday, June 9, 2020	ZEV Crediting	June 30
<b>3</b>	Thursday, June 11, 2020	Quantification Methodologies	Presentations: July 2 Methodologies: July 16
<b>4</b>	Tuesday, June 16, 2020	Land Use & Biodiversity Criteria	July 7
<b>5</b>	Friday, June 19, 2020	Target & Trajectory CCM & Compliance Fund Mechanism	July 10
<b>6</b>	Tuesday, June 23, 2020	5 Year Review Wrap-Up	July 14
<b>MSCC</b>	Friday, June 26, 2020	Overview of Process / Timelines, update on TWG meetings	

# CFS TIMELINE

2020

2022

2024 & on

SPRING/  
SUMMER

FALL

FALL

FALL

JAN - DEC

MID-YEAR

FALL

ALL YEAR

FALL

FALL

MID-YEAR

JAN - DEC

FALL

END OF YEAR

2021

2023

**LEGEND**

LIQUID

GASEOUS & SOLID

RFR

LCA MODEL

METHODOLOGIES

5-YEAR REVIEW

Engagement with TWG

Proposed regulations for liquid fuels (CG I)

First set of draft quantification methodologies published for review

Release of the Fuel LCA Model Methodology

Release of Fuel LCA Model  
Launch of the Stakeholder Technical Advisory Committee (STAC)

Last compliance period for RFR

-Final regulations for liquid fuels (CG II)  
-Start of early credit creation

First set of quantification methodologies published (FINAL)

Proposed regulations for gaseous and solid fuels (CG I)

Final reporting and true-up period for RFR

Reduction requirements for liquid fuels come into force

-Final regulations for gaseous and solid fuels (CG II)  
-Start of early credit creation

Reduction requirements for gaseous and solid fuels come into force

Repeal of RFR

-Monitoring data  
-Assessing Trends  
-Informing 5-year review process

Ongoing - quantification methodology development / updates

LCA Model maintenance & expansion, implementation of the STAC

# FUEL LCA MODEL

- The Fuel LCA Model is developed using a series of lifecycle assessment (LCA) background data and methodologies, which were outsourced to the vendor EarthShift Global LLC (contract completed April 30<sup>th</sup>, 2020).
  - The Fuel LCA Model will be made publically available for download via the ECCC website and used with a variety of available LCA software (users choice).
    - The user will populate existing pre-defined fuel pathways with data representing their specific fuel pathway(s), modify a pre-defined fuel pathway **OR** create new fuel pathway with the building blocks available in the Fuel LCA Model's database.
    - The resulting carbon intensity (CI) value can be used to submit to the CFS for credit generation.
  - The Fuel LCA Model will be launched in parallel with the CFS regulation as part of *Canada Gazette*, Part II.
  - The Stakeholder Technical Advisory Committee (**STAC**) will be launched to advise the ongoing development and update of the Fuel LCA Model. The STAC will be comprised of fuel producers and LCA experts and is anticipated to be launched following the publication of *Canada Gazette II*.
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# FUEL LCA MODEL

- **Objectives for 2020-2021:**

- Spring to Fall 2020

- Fuel LCA Model development and QA/QC
    - Contract to ensure compatibility of the Fuel LCA Model with existing LCA softwares.

- Fall 2020 to Winter 2021

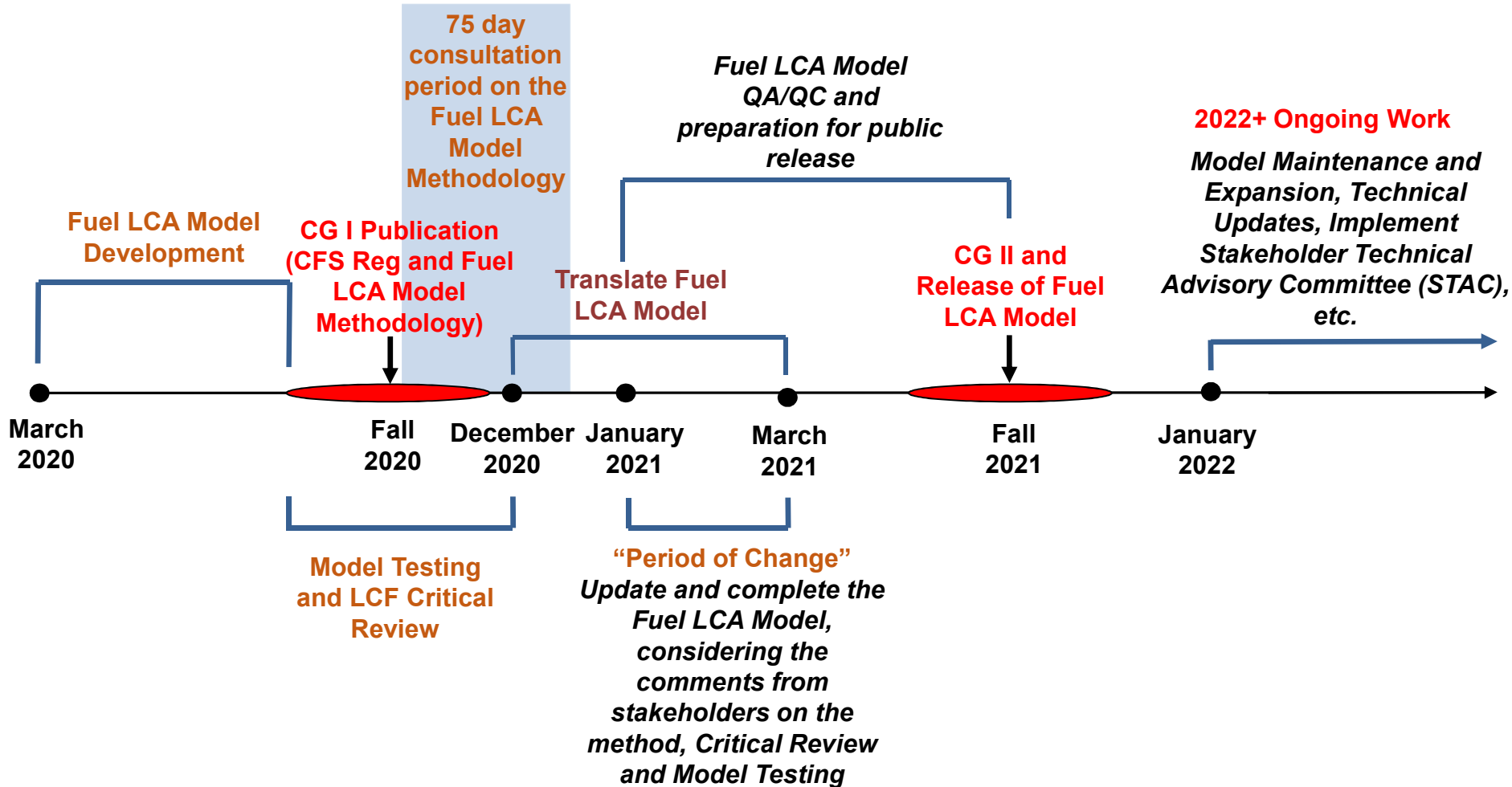
- Conduct a Critical Review of Low Carbon Fuel pathways
    - Test the Fuel LCA Model with a sample of Low Carbon Fuel producers

- Winter 2021 to Spring 2021

- Update and complete the Fuel LCA Model considering the comments from the CG I consultations, critical review and the model testing.
    - Finalize the Fuel LCA Model Methodology.
    - Prepare for publication on Government of Canada website.



# FUEL LCA MODEL TIMELINE



# CBA/RIAS ENGAGEMENT

- Consulted in February 2019 on the CBA Framework, which included the methodology and key assumptions. ECCC to consult again in June and provide:
  - An update on changes and improvements to the CBA framework
  - An illustration of compliance by pathway
  - Key assumptions and data sources that are being used to calculate credits as well as incremental costs and reductions
- Following CG I publication, ECCC will consult on the completed analysis, including:
  - Full incremental costs and benefits calculated for the central case
  - Sensitivity analysis looking at various compliance scenarios and key variables in the analysis
  - A distributional analysis that assesses impacts on regions, households, and sectors (including a competitiveness analysis)
  - Key metrics will include cost per tonne, cent per litre, and GDP impacts

# LAND USE & BIODIVERSITY CRITERIA

- Land-use and biodiversity (LUB) criteria have been incorporated into CFS to prevent adverse land use and biodiversity impacts potentially related to biofuel feedstock cultivation and harvesting
  - Biofuel feedstocks must adhere to LUB criteria in order to create credits under CFS; if they do, they are considered “eligible” under CFS
  - The responsibility to show that feedstocks and biofuels are eligible rests with the biofuel producers
  - The first draft of the LUB criteria was presented in the PRA and had requirements for agricultural feedstock and forest feedstock cultivation
  - Since the PRA was published, the LUB criteria had undergone multiple drafts after numerous consultations with internal ECCC divisions, stakeholders and OGDs
  - The LUB criteria have been strengthened in order to ensure that biofuel feedstock cultivation will not have negative land use and biodiversity impacts, and can be more precisely measured and verified
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# SUMMARY OF KEY CHANGES POST PRA

The following are key points that have gone through modifications since the PRA:

- Forest criteria are more rigorous, specific and measurable
- Feedstock cultivated from riparian zones is not eligible for CFS credits
- A riparian zone definition was added that aligns with best provincial practices, and to ensure more specific measurement and verification
- The material balance procedure now allows full credit for the amount of eligible feedstock used to produce a biofuel, instead of a prorated proportion, aligning with the approach used elsewhere by the biofuels industry
- Requirements are being added for aquatic plants and algae cultivation

Path forward with P/T

- ECCC plans to provide a more detailed review of the criteria and seek input and feedback from P/T forestry and agriculture experts this summer

# CONTACT US ANYTIME

Web Site

<https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-standard.html>

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