

**Voluntary Report** – Voluntary - Public Distribution

**Date:** June 18,2020

**Report Number:** JA2020-0131

**Report Name:** Japan Invites Comments on Revised Carbon Intensity Value for Gasoline

**Country:** Japan

**Post:** Tokyo

**Report Category:** Biofuels

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**Report Highlights:**

Japan's Ministry of Economy, Trade and Industry (METI) announced a proposal to increase the greenhouse gas emission value for gasoline to 88.74 g-CO<sub>2</sub>eq/MJ. METI also plans to expand the list of conditions, under which an unfulfilled bioethanol target can be carried into the following Japanese fiscal year. The revisions will affect Japan's policy on biofuels in the transportation sector. METI will receive public comments in Japanese on the proposal until July 15, 2020.

## General:

On June 16, 2020, Japan's Ministry of Economy, Trade and Industry (METI) proposed to increase the greenhouse gas (GHG) emission value for gasoline to 88.74 g-CO<sub>2</sub>eq/MJ from 84.11 g-CO<sub>2</sub>eq/MJ ([e-Gov notification in Japanese](#)). The revised value is below the comparable U.S. Renewable Fuel Standard (RFS) and European Union's Renewable Energy Directive (RED) II. This revision will inform Japan's approach to reducing GHG emissions associated with fuel combustion.

METI will accept comments in Japanese submitted by July 15, 2020 via:

- [e-Gov](#): click “意見提出フォームへ” to submit comments
- Email: to: [bio\\_public\\_comment@meti.go.jp](mailto:bio_public_comment@meti.go.jp)
- Mail: 〒100-8901  
1-3-1 Kasumigaseki, Chiyoda-ku, Tokyo  
To: Agency for Natural Resources and Energy, Natural Resources and Fuel Department,  
Policy Planning Division, Attn.: Public Comments Team
- FAX: +81-(0)3-3501-8449

## Background:

To encourage the use of renewable energy sources and reduce reliance on fossil fuels, in 2009, METI introduced the [Sophisticated Methods of Energy Supply Structure Act](#) (hereafter the Sophisticated Act); [JA2019-0183](#)), which set the GHG emission (or carbon intensity (CI)) value for gasoline at 81.7 g-CO<sub>2</sub>eq/MJ<sup>1</sup>. On April 17, 2018, METI released the revised Sophisticated Act 2.0, which increased the CI value of gasoline to 84.11 g-CO<sub>2</sub>eq/MJ to account for methane and nitrous oxide emissions during crude oil production. Expert members of METI's Technical Review Committee Meeting toward the Introduction of Biofuels in Japan (hereafter, Expert Committee) encouraged METI to utilize internationally recognized life cycle assessment (LCA) models and recalculate Japan's CI value for gasoline.

On October 30, 2019, METI's Agency for Natural Resources and Energy (ANRE) held the initial [Expert Committee Meeting](#) to revise the gasoline CI value. During the following February 14, 2020 [Expert Committee Meeting](#), ANRE decided to adopt the [Oil Production Greenhouse Gas Emissions Estimator](#) LCA model to calculate Japanese gasoline CI value. On June 1, 2020, ANRE held the final [Expert Committee Meeting](#) and proposed a GHG emission value of 88.74 g-CO<sub>2</sub>eq/MJ for gasoline.

## Methodology and CI Values:

The gasoline GHG emission value for the gasoline consumption phase increased to 73.08 g-CO<sub>2</sub>eq/MJ from 72.25 g-CO<sub>2</sub>eq/MJ reflecting Japan's January 2020 revision of the [carbon emissions factor](#). METI

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<sup>1</sup> The value is based on calculations by Japan Petroleum Energy Center in 1995-1999.

did not change GHG emission values for crude oil transportation, gasoline production and gasoline transportation. METI increased the GHG emission value for crude oil extraction from 2.077 g-CO<sub>2</sub>eq/MJ to 5.87 g-CO<sub>2</sub>eq/MJ. Although Japan’s new total GHG emission value for gasoline increased to 88.74 g-CO<sub>2</sub>eq/MJ from 84.11 g-CO<sub>2</sub>eq/MJ, it remains below comparable current U.S. RFS2 and EU RED II values (Table 1).

**Table 1. Comparison of Gasoline GHG Emission Values by Life Cycle Phase Across Japanese, EU and U.S. Programs (in g-CO<sub>2</sub>eq/MJ)**

	Japan’s Sophisticated Act 2.0 (2018)	Japan’s Proposed Values (2020)	EU RED II	U.S. RFS2
Crude Oil Extraction	2.077	<b>5.87</b>	10.9	18.2
Crude Oil Transportation	0.8522	0.8522	1.0	
Gasoline Production	8.929	8.929	7.0	
Gasoline Transportation	N/A	N/A	1.1	74.9
Gasoline Consumption	72.25	<b>73.08</b>	73.3	
Total	84.11	<b>88.74</b>	93.3	93.1

Source: [METI](#)

Notes: Bold font denotes revised GHG emission values

METI indicated that Japan’s reliance on crude oil from oil fields in the Middle East with low CI values accounts for Japan’s proposed value being lower than those of U.S. RFS2 and EU RED II. METI’s GHG emission value for the crude oil extraction phase is based on the available GHG emission data for the top 20 types of crude oil imported by Japan and represents 79 percent of Japanese crude oil imports. METI’s proposed value does not account for GHG emissions during gasoline transportation from refineries to gas stations. METI’s proposed value assumed stable global gasoline demand.

### **Flexibility of Target Volume:**

In addition to revising the gasoline CI value, METI also proposed to add more flexibility to how Japan meets its bioethanol target. According to the current Sophisticated Act, Japan can carry over the unfulfilled volume of its bioethanol target into the next fiscal year only if unusual weather or natural disaster cause a shortage of bioethanol. In light of COVID-19 and other supply chain issues, METI expanded the list of conditions under which a carryover was allowed. These conditions include facility accidents or gasoline demand shock.

### **Attachments:**

No Attachments.