資料36-3

75th Meeting of the CIMAC EEC WG

CIMAC
INTERNATIONAL COUNCIL
ON COMBUSTION ENGINES

Asia and Japan
Marine and Power Plant

Japanese Domestic CIMAC
Japan Internal Combustion Engine Federation (JICEF)
31st MAY 2023

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JICEF

Items

1. Japan amend the Act on Rationalizing Energy Use

2. Indonesia to Implement Biodiesel B35

3. Singapore transport minister signals decarbonization targets for harbor vessels

Japan amend the Act on Rationalizing Energy Use

Major environmental regulations (part of many laws and Acts)

Overall environmental	Basic Environment Act	
Regulation of emissions, etc.	Air Pollution Control Act	NOx,SOx,Dust etc
	Vibration Regulation Law	
	Noise Regulation Law	
	Offensive Odor Control Law	Ammonia :Industrial area 5ppm, Others 1ppm
Environmental protection	Act on Promotion of Global Warming Countermeasures	
	Act on Prevention of Marine Pollution and Maritime Disaster	Related IMO
Energy	Act on the Rational Use of Energy	Factories, except ships
	Act on Special Measures Concerning the Promotion of New Energy Usage	
	Electricity Business Act.	Effect on March 20, 2023 Report Sola 10- 50kW
	Gas Business Act	
	Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities	

Japan amend the Act on Rationalizing Energy Use

1. Background

The Act on Rationalizing Energy Use has until now required large-scale businesses that use energy to rationalize the use of fossil energy. The Revised Act, which will be put into effect on April 1, 2023, will require them to rationalize the use of all kinds of energy, including non-fossil energy, and shifting to non-fossil energy. It will also change the legal system to encourage the optimization of electricity demand in light of the need to expand the introduction of non-fossil energy toward achieving carbon neutrality by 2050, while coping with fluctuations in the electricity supply from renewable power sources such as solar power.

Enforcement date: April 1, 2023

https://www.meti.go.jp/english/press/2023/0331_004.html

Japan amend the Act on Rationalizing Energy Use

(1) Expanding the scope of rationalization of energy use to include non-fossil energy
In response to the expansion of the scope of energy to include non-fossil energy under the Energy Conservation Law, we have stipulated the calorific value conversion factors for non-fossil fuels such as hydrogen and ammonia, which are used when reporting energy consumption regular basis.

(2) Measures for conversion to non-fossil energy
Matters to be addressed by business operators to convert to non-fossil energy, such as selection of power generation equipment and cogeneration equipment compatible with the use of non-fossil fuels, and targets for conversion to non-fossil energy in the manufacturing industry, newly established the "Evaluation Criteria for Business Operators Concerning Conversion to Non-Fossil Energy in Factories, etc."
In addition, to request the submission of targets to increase non-fossil electricity used ratio for factories and specified businesses in the business field.

(3) Measures to optimize demand for electricity
The guideline indicates matters to be tackled regarding the optimization of electricity demand, such as switching from using grid electricity to fuel or heat during periods of tight supply and demand, and utilizing storage batteries, etc. during periods of output control.
In addition, request a report on the number of times demand response was implemented in the regular report.

Japan amend the Act on Rationalizing Energy Use

Annual energy consumption (crude oil equivalent) >1500 kL

(Sample of calorie conversion factor)

Type	Calorie conversion factor
MDO	38.0 GJ / kL
LPG	50.1 GJ / ton
LNG	54.7 GJ / ton
Bio Diesel	35.6 GJ / kL
Hydrogen	142 GJ / ton
Ammonia	22.5 GJ / ton

Energy consumption intensity=(A'-B-B')/C

A:Energy usage (fuel, heat, electricity usage)
A':Total energy consumption recalculated by multiplying the non-fossil fuels of A by a correction factor of 0.8
B:Sold by-product energy
B':Purchased unused heat
C:A value closely related to energy usage (production volume, sales, building floor area)

Obligation to report energy consumption intensity, electricity demand optimization evaluation intensity and use of non-fossil energy for the past five years

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Indonesia to Implement Biodiesel B35

The government plans to increase the percentage of blending Biofuel (BBN), namely palm biodiesel, into diesel oil from 30% (B30) to 35% (B35) starting February 1, 2023.

Then, this mixing percentage will later be increased to 40% (B40). In addition to supporting the contribution of renewable energy to the national energy mix, the B35 and B40 implementation plans are also expected to have a positive influence on the domestic economy.

Director of Bioenergy, Ministry of Energy and Mineral Resources, Edi Wibowo said, the substitution of fuel to fuel is a strategic effort in an effort to save foreign exchange due to declining diesel oil imports, increasing the added value of Crude Palm Oil (CPO), creating jobs, as well as reducing greenhouse gas emissions and increasing the mix of new renewable energy in Indonesia.

https://www.infosawit.com/2023/04/20/persentase-campuran-biodiesel-35-b35-bakal-berlanjut-ke-b40/

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Singapore transport minister signals decarbonisation targets for harbour vessels

Singapore's Maritime Ports Authority (MPA) announcements

In Q2 2023	The MPA will launch a call for proposals for the design, development, demand aggregation and green financing for new electric harbour craft
In 2024	the MPA is "studying the timelines for the transition" given tugboats' unique power requirements, and will provide an update on plans
From 2030	All new harbour vessels must be fully electric, run on B100 biofuels or be compatible with net-zero fuels such as hydrogen
By 2050	MPA will set the target for the harbour craft and pleasure craft sectors to achieve net-zero emissions

https://www.rivieramm.com/news-content-hub/news-content-hub/singapore-transport-minister-signals-decarbonisation-targets-for-harbour-vessels-75258

Thank you for your attention