

# **Benchmarking of Biodiesel Fuel Standardization in East Asia**

## **Abstract**

A common agreement on biodiesel fuel standards for East Asia countries was discussed. The concepts to develop the agreement were (1) Based on the European fatty acid methyl ester (FAME) standard (EN14214), (2) Consideration of various oils such as coconut (which has a lower viscosity and flashpoint) and soybean (which has a lower iodine number) and (3) For oxidation stability consideration of metal fuel tanks which are popular in the East Asia Region. Basically all members agreed the EAS-ERIA Biodiesel Fuel Benchmark Standards.

## **1. INTRODUCTION**

### **1.1. Policy Relevance**

The importance of biofuels has been recognized in the Cebu Declaration on East Asian Energy Security on 15 January 2007, in which the standardization was encouraged for practical use. In order to contribute to the promotion of biofuels in East Asian countries, Japan announced “Fueling Asia-Cooperation: Initiative for Clean Energy and Sustainable Growth”, which included the promotion of biomass energy. It was welcomed by all participating countries.

Then, Energy Cooperation Task Force (ECTF) proposed launching a study on biodiesel fuel standard to discuss the concrete measures. The 1<sup>st</sup> EAS Energy Ministers’ meeting (EMM1) was held in Singapore on 23 August 2007. The importance of biodiesel fuel standard was mentioned in the joint statement.

### **1.2. Background**

The Kyoto Protocol emphasized the concept of “carbon neutral” Biofuels can have climate change benefits as they are produced from renewable sources.

Asian countries are actively promoting the introduction of biofuels due to soaring

oil prices and increased energy consumption. The utilization of biofuels is also important from the viewpoint of energy security and diversification of transport fuels.

However, the low-quality biodiesel fuel raises serious concerns regarding the effect on engine performance caused by fuel impurities and the oxidation. Therefore, biodiesel fuel standards have been established in many countries. Harmonization of standards within the East Asia region will facilitate the use and trading of good quality biodiesel.