

## **Turkmenistan GTG Plant Project Team**

【Kawasaki Heavy Industries, Ltd.】

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Members: 92 people (Kawasaki Heavy Industries, Ltd. 92 people)

The completed GTG (Gas To Gasoline) plant is the world's largest commercial base plant, based on the Danish company Topsoe's pilot scale technology, materialized by Kawasaki Heavy Industries. It is currently the largest, as well as the only one of its kind worldwide, that produces 600,000 tons of high-quality gasoline from natural gas annually.

In this plant, gasoline is produced from methanol synthesized from natural gas, and the gasoline produced contains no heavy metals, so no toxic substances are emitted during its combustion. Moreover, because the gasoline is 100% chemically synthesized from natural gas, it contains almost no sulfur nor other impurities, and thus meets strict environmental standards in countries around the world.

Turkmenistan is a Central Asian country with abundant natural gas reserves (the fourth largest in the world) but had to depend on other countries' pipelines for exports, making stable natural gas exports difficult. The GTG plant uses Turkmenistan's natural gas resources to create a value-added exportable product that is not dependent on pipelines, contributing to the diversification of the country's export products and the acquisition of foreign currency.

The synthetic gasoline produced by the GTG plant is exported to neighboring countries such as Afghanistan and Georgia under the brand "ECO93", where it is sold as an environmentally friendly gasoline and is steadily gaining popularity. Previously dependent on imports for gasoline, Turkmenistan is now able to produce gasoline in their own country, which has led to reduced gasoline imports and an improved energy self-sufficiency rate.

In a country where there are few large-scale industries and job creation is an issue, the GTG plant has greatly contributed by creating operation jobs for about 600 people.

The President of Turkmenistan has paid close attention to this national project, and visited the plant construction site many times, which was widely reported on local television, newspapers, and online.

At the plant completion ceremony in June 2019, many attendees from Japan- including the Deputy Minister of Economy, Trade and Industry and seven members of the Diet- visited Turkmenistan on a charter jet prepared by the President and the Turkmenistan government, which was widely reported on local television and newspapers, as well as in Japan and other countries.

In addition, when the President of Turkmenistan visited Japan in October 2019 for the emperor's enthronement ceremony, he expressed gratitude regarding the plant during a meeting with Prime Minister Abe.

Due to the aforementioned outstanding achievements and potential future developments, this case has been deemed worthy of an award in the field of international contribution.



Panoramic view of the GTG plant

	GTGガソリン	欧州 Euro5	日本 JIS規格
オクタン価	92以上	95 91(レギュラー)	96(ハイオク) 89(レギュラー)
鉛分(mg/l)	Nil	5以下	無鉛(1以下)
密度(g/l)	730	720-775	783以下
硫黄分(ppm)	Nil	10	10

GTG Gasoline characteristics



Plant completion ceremony  
President of Turkmenistan



Meeting between Prime Minister Abe and  
the President of Turkmenistan