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## **Asian growth markets fuel global biomass trade**

**In the coming years, and as a result of attractive feed-in tariffs, the demand for imported biogenic fuels will increase, especially in Japan and South Korea. By 2028, ecoprogram expects 1,500 new biomass power plants with a capacity of 21 GW<sub>el</sub> to be commissioned worldwide.**

In 2018, the global number of biomass power plants grew by 200 to around 4,000 facilities with an installed capacity of 67.7 GW<sub>el</sub>. The largest plant asset is located in Europe, South America and Asia.

Asia is currently showing the most dynamic market development. Until 2028, the largest quantitative growth in the number of biomass power plants will take place in the large states of China and India. Both countries have introduced subsidisation systems to support the market development. However, in light of their great biomass potentials, importing biogenic fuels has so far not been very important in these countries.

The situation is different, for example, in Japan and South Korea, where attractive funding systems ensure considerable project activities. However, the respective domestic biomass potential is limited due to the comparatively small area and high population.

As a result, many plant operators rely on imported biogenic fuels. In Japan, for example, wood pellet imports increased from 0.5 million tons in 2017 to 1.4 million tons in 2019. Many projects also use imported palm kernel shells from Malaysia and Indonesia. Because of the busy project activities, the imports are expected to increase in the future.

In 2018, wood pellet imports in South Korea already reached 3.4 million tons. However, in 2019, the imports dropped slightly to 3.0 million tons. This was mainly due to social and political pressure to reduce the state-sponsored co-incineration of imported biomass in coal-fired power plants. As a result, the support for co-incinerating biomass in new projects was stopped in 2018. In the medium term, however, imports are expected to increase again, as around 18 biomass power plants with a capacity of about 1.1 GW<sub>el</sub> are currently being planned.

In a global comparison, Europe continues to demand the largest amount of wood pellets – despite the dynamic growth in Asia. The United Kingdom and Denmark show the greatest demands for imported wood pellets.

In both countries, large coal-fired power plant units have been converted to biomass combustion in recent years so that the demand for wood pellets now exceeds the domestic supply.

In 2019, the UK alone imported around 8.6 million tons of wood pellets. Around 60% of the imported wood pellets came from the USA, 20% from Canada and around 10% from Latvia. Most of the imported wood pellets were incinerated in the converted coal-fired power plant in Selby. Against this background, power plant operator Drax operates three own pellet plants in the USA.

Denmark imported an estimated 2.8 million tons of wood pellets in 2019, mostly from the Baltic states, Russia and the USA. In Denmark, energy supplier Ørsted is the largest consumer of wood pellets.

When analysing the supply side, Russia has the greatest potential for increasing its wood pellet production. In 2019, the country exported an estimated 1.5 million tons of wood pellets, with Europe being the main destination (reaching a share of around 95%).

However, against the backdrop of increasing demands from Asia, Russian exporters do no longer only focus on Europe, but are also beginning to target the Asian markets. Accordingly, in recent months, an increasing number of pellet plants were being planned in the eastern parts of Russia. Furthermore, Japanese companies, e.g. plant operator E-Rex, announced in 2019 that they would like to build their own pellet plants in Russia.

The global asset of biomass power plants will continue to increase in the 2019-2028 period. The main market factor continues to be the promotion of electricity generation from solid biomass, even though the support systems are becoming increasingly competitive everywhere in the world. By 2028, the number of plants will increase by around 1,550 with an installed capacity of 21.7 GW<sub>el</sub>.

The tenth update of our "Biomass to Power" study is the most extensive of its kind, since it is the only one based on an evaluation of the global plant asset – and not just public statistics. Find further information on the current 2019/2020 edition at: [www.ecoprogram.com](http://www.ecoprogram.com).

As a recognised strategy consultant, Cologne-based consulting company ecoprogram supports domestic and foreign customers with implementation-oriented management questions with a political, technical or economic background in the environmental and energy technology industries. The company focuses on strategy consulting, market and competition analyses and multi-client studies.