

China creates world's 1st coal-to-ethanol production line

China has successfully created the world's first production line to turn coal into ethanol, or drinking alcohol, the Chinese Academy of Sciences said on Friday.

Created by Shaanxi Yanchang Petroleum and the academy's Dalian Institute of Chemical Physics in Liaoning province, the production line went into operation in January and has the capacity to make more than 100,000 metric tons of pure ethanol every year, according to Liu Zhongmin, the institute's deputy director.

By 2020, China will build a factory capable of producing 1 million tons of ethanol each year using the same technology, he said.

The country currently produces 7 million tons of ethanol each year using other methods, which can "hardly satisfy" its industrial and energy needs, according to Liu.

"Most countries produce ethanol using food, such as corn or sugar cane, but this is not a viable option for China given its massive population," he said.

"By turning China's abundant coal resources into ethanol, the technology will help safeguard our energy and food security,"

Moreover, ethanol is a green fuel and versatile ingredient. "Utilizing it could reduce our dependency on fossil fuels, and make our industrial production and energy structure more environmental friendly," Liu said.

In addition to alcoholic beverages, ethanol can be used to produce thousands of everyday products from plastics to detergents. It can also replace more toxic ingredients, such as methanol, during industrial production.

Other uses include mixing it with petroleum to increase its fuel efficiency and reduce pollution. An abundant supply of ethanol would also make ethanol-fueled vehicles more viable, Liu said.