

Hello and welcome to As It Is from VOA Learning English! I'm Mario Ritter in Washington.

Today, we have two reports about energy -- its supply and development. In Hong Kong, researchers are seeking government help to develop biofuel from algae. The idea is to make fuel from these simple organisms in a cost-effective way.

But first, we hear how the crisis in the Ukraine could have an effect on Russian exports of natural gas to Europe. Gas supplies and biofuel from algae are our subjects today on As It Is.

## **Europe Hopes Crisis in Ukraine Does Not Affect Supplies**

Natural gas prices have risen in Europe because of the crisis in Ukraine's Crimean peninsula. Christopher Cruise has more in this report from VOA's Henry Ridgwell in London.

Russia provides about 25 percent of Europe's natural gas. Ukraine stands between Russia, the supplier, and Europe, the customer. Any conflict between Russia and neighboring countries can affect gas prices and supplies to the west.

Simon Pirani is a researcher at the Oxford Institute for Energy Studies in Britain.

"The prices have risen in the traded market over the past couple of days because of anxiety about the availability of gas over both the medium and the long term."

Europe needs Russia for much of its gas supply. Ukraine is highly dependent on Russian gas. Russian companies can increase prices suddenly. That is what the huge energy company Gazprom says it will do next month for gas it sells to Ukraine. The Ukrainian state-owned company Naftogaz already owes Gazprom about \$2 billion dollars.

The European Union is willing to help. The European Commissioner for Energy, Gunther Oettinger, said last week that the EU would pay Ukraine's gas debt. He also said there were no immediate concerns about gas supplies in Europe.

He said the EU's members states are in a good position at the moment. European gas supplies in storage are higher than last year.

European officials remember that in 2006 and 2009, Russia cut off gas supplies to Ukraine over price disputes. Europe also experienced shortages. Cold winters and low supplies meant that prices rose sharply.

Partly because of these problems, European buyers are now less dependent on gas sent through Ukraine. The North Stream pipeline opened in 2011. It carries gas under the Baltic Sea to Germany. Europe's biggest economy is also Russia's biggest gas customer.

Simon Pirani says European countries took steps to build more pipelines after the first Russia-Ukraine dispute.

"There's also been quite a lot of work done in central and eastern Europe as a result of the 2009 dispute when people realized that Russia-Ukraine disputes could have implications further down the pipeline."

That includes the South Stream project. Russian President Vladimir Putin attended a ceremony as the first parts of the pipeline were connected in 2012. The pipeline will stretch along the bottom of the Black Sea directly to southeastern Europe. It is expected to start operating in 2015. It could provide much of Europe's gas needs.

However, tensions are increasing over Russia's apparent troop deployment in Crimea. The Russian government has denied any deployment. The EU has threatened possible action against Russia. There is a concern that the country could suspend gas shipments to Europe.

Simon Pirani does not believe that is likely.

"Gazprom's a commercial company, it has to make money, and it wants to deliver its gas to its customers in Europe."

Observers say the current tensions will likely make Europe increase efforts to find other energy supplies and cut its dependence on Russia.

I'm Christopher Cruise.

## **Hong Kong Researchers Seek Government Support to Develop Biofuel from Algae**

A team of scientists in Hong Kong is testing micro algae to clean water waste and produce fuel. Rebecca Valli in Hong Kong has been following the story. Karen Leggett has her report.

Hong Kong researchers are asking the government to support development of biofuel from algae. The idea is to protect the young industry from foreign competition.

Ho Kin-Chung is an environmental scientist from the Open University of Hong Kong. He has been studying ways to create energy from algae. He says the process is simple. It uses some of the main, or intrinsic, qualities of the plant.

“Some of the algae, they contain a very high quantity of oil.”

Scientists have been experimenting with biofuels for many years. Biofuels capture the energy stored in plants to make fuel. Researchers developed them as a way to reduce dependence on fossil fuels such as petroleum and coal.

Still, there is a debate over how some kinds of biofuels affect water and land use. Researchers became interested in algae because it is easy to grow and care for. It also can be grown in seawater without using agricultural or drinking water.

Ho Kin-Chung says the necessary technology is solid, but still very costly. In fuel markets, he says, algae biofuel has to compete with traditional fuels. Petroleum or natural gas cost 30 to 40 percent less.

He says linking biofuel production with wastewater treatment can make the process more cost-effective.

Algae depend on nitrogen and phosphorous to grow. These are exactly the chemicals that need to be removed from wastewater.

Ho Kin-Chung says he will ask the government for a \$1.3 million grant to develop a pilot program at a wastewater treatment center in Hong Kong.

Steve Choi is the executive director of Dynamic Progress International. The company is one of the first businesses in Hong Kong to sell biofuels to the public.

Steve Choi says the government should agree to test locally-made biofuels in its day to day operations.

I'm Karen Leggett.

And that is As It Is for today. I'm Mario Ritter. Thank you for joining us. Keep listening for the latest world news at the top of the hour, Universal Time.

And join us again tomorrow for another "As It Is."