

“Out with Keystone XL, In with Enbridge Northern Gateway”

By Thomas Rose, *Breitbart*, June 28, 2014

Claiming it could no longer abide the Obama administration's five-year refusal to approve construction of the Keystone XL pipeline designed to bring 830,000 barrels a day of much-needed Alberta shale oil to U.S. refineries, the Canadian government recently approved plans for a huge new pipeline and port project to ship that oil to Asia instead.

When completed, the \$7.9 billion Enbridge Northern Gateway Project, approved by Canada's federal government on June 17, will consist of an environmentally safe, 730-mile oil pipeline. It will be capable of moving 600,000 barrels a day of Alberta oil to the pacific coast town of Kitimat, British Columbia, where a new state-of-the-art super tanker port facility will be built to ship the oil to thirsty Asian ports.

It was initially hoped that recent discoveries of massive new Canadian oil and gas reserves could benefit both Canada and the United States by building a safe and reliable pipeline to bring the oil to U.S. refineries in Louisiana and Texas. Building the proposed 1,179-mile Keystone pipeline promised, not just a huge new supply of reliable, clean, and affordable oil to U.S. markets, but the creation of up to 20,000 high-paying construction jobs. An additional 22,000 jobs economists predicted would have resulted from the broader economic stimulus the project would have generated.

Read more: <http://www.breitbart.com/Big-Peace/2014/06/27/Goodbye-Keystone-XL-Hello-Enbridge-Northern-Gateway>

“Breakthrough for renewable energy”

By Tim Roberts, *Newcastle Herald*, June 29, 2014

WE know that the burning of coal, oil or gas gives us energy and also puts greenhouse gases into the atmosphere.

We also know that oil and natural gas are becoming scarcer and more expensive, so how about an energy-giving technology that not only draws down carbon dioxide from the air but also puts carbon back in the ground?

Pyrolysis is the name of the game and several companies in our region are developing the technology to not only convert biomass to biochar - that is, to take the carbon dioxide that is

converted by photosynthesis into plant matter and heat it in the absence of oxygen so that it converts to charcoal (biochar) - but also to capture the energy-rich gases that are given off by this process and subsequently burn them for energy.

The biochar is very good for the soil in two ways. Its inert porous structure forms a great home for the bacteria and fungi necessary for plant growth, and it also contains the minerals and salts that were present in the original plant material and returns these to the soil.

We cooked on wood fires when I was growing up and my father would always put the ash from the wood-fired stove in the garden before setting up a new fire.

Indeed, for thousands of years other cultures have been using charcoal in soil as part of their agricultural practices.

Research is confirming that biochar can double the water-holding capacity of sandy soils and some mines are experimenting with it for soil rehabilitation.

This breakthrough biochar and syngas technology now provides an opportunity to run the greenhouse system backwards by mining carbon dioxide from the atmosphere to remake (char) coal and put it in the soil and make renewable non-fossil gas from weeds. Instead of millennia, new coal can be made in hours.

Read more: <http://www.theherald.com.au/story/2383804/breakthrough-for-renewable-energy/>

“Synfuels China Technology Acquires High Throughput Technology from hte”

hte Press Release, *Digital Journal*, July 2, 2014

hte announces conclusion of a contract with Synfuels China Technology (Synfuels) specifying the construction and delivery of a high throughput reactor system to be installed at Synfuels' facilities in Beijing, China.

HEIDELBERG, GERMANY, July 02, 2014 /24-7PressRelease/ -- hte is supplying an X3000 high throughput catalyst testing system that will support Synfuels' research activities in Fischer-Tropsch synthesis. "hte's high throughput reactor technology has a unique design philosophy that helps us to acquire more accurate data more efficiently. We are very excited to be collaborating with hte," says Yong Yang, Deputy General Manager at Synfuels.

Synfuels will enjoy the benefits of a mature technology that is the result of several years' project work in a variety of syngas conversion applications. Wolfram Stichert, CEO at hte, comments: "We are very pleased with the cooperation with Synfuels, which motivates us to further expand our exposure in the Chinese R&D market. We are convinced that this successful project will lead to a reliable, long-lasting relationship."

hte's X3000 parallel reactor system is an essential tool for high throughput testing of Fischer-Tropsch (FT) catalysts under industrially relevant conditions. Important features include precise

and reliable process control in this strongly exothermic reaction, and a sophisticated analytical suite that is able to distinguish and quantify up to 200 different product components in a short time. With this technology he has demonstrated excellent processing stability with time-on-stream greater than 1,000 hours.

Read more: <http://www.digitaljournal.com/pr/2029987>

“Sasol, Eni launch pre-feasibility study for large GTL plant in Mozambique”

Hydrocarbon Processing, July 3, 2014

The study, which is being conducted in conjunction with Mozambique's national oil company and Italian multinational Eni, will assess the viability and benefits of such a plant to the region.

Sasol announced Thursday that it is conducting a joint pre-feasibility study for a large-scale gas-to-liquids (GTL) plant, which will be based on gas from the Rovuma Basin in Northern Mozambique.

The study, which is being conducted in conjunction with Mozambique's national oil company, Empresa Nacional de Hidrocarbonetos (ENH) and Italian multinational Eni, will assess the viability and benefits of such a plant to the region.

Read more: <http://www.hydrocarbonprocessing.com/Article/3358106/Sasol-Eni-launch-pre-feasibility-study-for-large-GTL-plant-in-Mozambique.html>

“Maverick Synfuels, Petrostar Petroleum Form Joint Venture”

Environmental Leader, July 8, 2014

Maverick Synfuels, an alternative chemicals and fuels production technology company, and Petrostar Petroleum, a Canadian-based oil and gas exploration company, have formed Maverick Northstar, a joint venture to facilitate the deployment and operation of gas-to-liquids (GTL) technology in the Canadian Provinces of Alberta, British Columbia and Saskatchewan.

The small-scale modular plants will utilize and promote technology that converts a methane-rich feedstock, such as natural gas, flare gas and biogas, into methanol, which offers new possibilities for synthetic chemicals and fuel production in Canada's methane-rich prairie provinces.

Much of the methane in Western Canada is found in remote oil and gas fields where traditional distribution is not economically viable due to infrastructure choke points and discounted gas rates. Maverick's modular production platform offers the first small-scale solution that can be co-located at the source of the methane, the company says. The platform converts methane and higher hydrocarbons into methanol that can be used on-site or transported to larger facilities nearby for conversion into higher value products such as ultra-clean synthetic fuels and chemicals.

Read more: <http://www.environmentalleader.com/2014/07/08/maverick-synfuels-petrostar-petroleum-form-joint-venture/>

“Velocys acquires Pinto Energy and Ashtabula GTL project in Ohio”

Farm and Dairy, July 10, 2014

Project hopes to accelerate development of the smaller scale gas-to-liquids industry.

HOUSTON — Velocys, which focuses on smaller scale gas-to-liquids technology, announced the acquisition June 25 of Pinto Energy and the Ashtabula gas-to-liquids (GTL) project.

The move, company officials say, represents a step in the North American oil & gas industry’s adoption of smaller scale GTL, accelerating the development of “shovel ready” projects.

“The acquisition of Pinto Energy, one of North America’s leading smaller scale GTL project developers, provides Velocys a key stepping stone for commercial growth,” said Roy Lipski, CEO of Velocys.

Read more: <http://www.farmanddairy.com/shale-2/velocys-acquires-pinto-energy-ashtabula-gtl-project-ohio/200968.html>

“ET Rover hopes to develop Midwest gas pipeline of up to 3.25 Bcf/d”

By Sean Sullivan, *SNL*, July 25, 2014

Energy Transfer Partners LP subsidiary ET Rover Pipeline Co. LLC is working on two fronts to develop a pipeline capable of moving at least 2.2 Bcf/d of natural gas west from the Marcellus and Utica shales to market areas in the U.S. and Canada.

ET Rover is wrapping up its open season July 25 for the proposed project. A spokeswoman for Energy Transfer, owned in part by Energy Transfer Equity LP, did not return calls about the open season by press time, but in a FERC filing, ET Rover said it has already executed precedent agreements with anchor shippers for 1.2 Bcf/d of gas transportation capacity, and it expects to have more commitments even before the open season.

"ET Rover is evaluating additional scenarios with the overall pipeline capacity of up to 3.25 Bcf per day," the pipeline company told FERC.

Antero Resources Corp. said it had signed up as an anchor shipper on Rover, part of a collection of approximately 1.1 Bcf/d in transportation agreements the shipper made in the second quarter. U.S. Capital Advisors listed Rover as one of a number of big pipeline projects in the works in a July 11 midstream earnings preview.

Along with the open season, the Rover pipeline project is going through the FERC prefiling review process. ET Rover said it anticipates filing a certificate application in January 2015. It asked the commission to approve a certificate by November 2015 so it could put in service a first phase connecting Utica and Marcellus shale supply areas to the Midwest Hub in northwest Ohio in time to meet December 2016 service dates for supply laterals. A second stage of the project, extending from the Midwest Hub to the Union Gas Dawn Hub in Ontario, has a targeted in-service date of June 2017.

Read more: <http://www.snl.com/Interactivex/article.aspx?CdId=A-28736499-10024>

“Exclusive: Exxon eyes expanding Texas refinery into biggest in U.S. - sources”

By Erwin Seba, *Reuters*, July 25, 2014

(Reuters) - Exxon Mobil Corp is considering a multibillion-dollar plan to expand its Beaumont, Texas, refinery into the country's largest, the first major refining investment of the U.S. shale oil boom, people with knowledge of the deliberations said.

The expansion of the 344,600 barrel-per-day (bpd) Beaumont refinery, if carried out, would be completed by 2020 and potentially double its size with the addition of a third crude distillation unit (CDU), the sources said. More modest near-term projects to renew and expand so-called coking units to help refine more heavy crude already are under way, they said.

If Exxon presses ahead, the investment would be a further indication that the American oil giant is breaking ranks with many of its big global rivals, who have been looking to sell off refining assets across the world. Just weeks ago Exxon unveiled a \$1 billion investment in its Antwerp plant.

An Exxon spokesman, while declining to discuss possible plans for the Beaumont refinery, said the company was always evaluating growth options.

"We regularly evaluate our global portfolio of businesses and opportunities for growth, depending upon the fit with its strategic business objectives," Exxon spokesman Todd Spitler said. "We take a disciplined long-term approach to investing, regardless of the economic cycle."

A bigger Beaumont would bolster the U.S. Gulf Coast's position as a top global supplier of gasoline and diesel at a time when domestic demand is falling. Profits for Gulf Coast refiners have swollen as cheaper North American crude allows them to capture big margins when exporting refined products.

Read more: <http://www.reuters.com/article/2014/07/25/us-refinery-operations-exxon-mobil-beaum-idUSKBN0FU12O20140725>

“NIST develops prototype meter test for hydrogen refueling stations”

By Mark Esser, NIST, *R & D Magazine*, July 28, 2014

To support the fair sale of gaseous hydrogen as a vehicle fuel, researchers at NIST have developed a prototype field test standard to test the accuracy of hydrogen fuel dispensers. Once the standard is field tested, it will serve as a model for constructing similar devices for state weights and measures inspectors to use.

Three automakers plan to begin selling hydrogen-fueled vehicles to consumers in 2015. The state of California has opened nine refueling stations and is funding the construction of an additional 28 hydrogen stations during the next few years to service the growing number of hydrogen fuel cell vehicles on their roads.

NIST Handbook 44, the bedrock reference text for weights and measures inspectors, includes specifications, tolerances and other requirements for commercial weighing and measuring equipment ranging from gasoline dispensers to grocery store scales. Handbook 44, which has been adopted by all states, stipulates that hydrogen will be sold by the kilogram, and according to Juana Williams, a NIST weights and measures expert, hydrogen-dispensing pumps must be accurate to within 2%, or 20 g/kg.

"It's much more difficult to measure hydrogen gas delivered at 5,000 to 10,000 psi than it is to measure a product that is a liquid at atmospheric temperatures and pressures," says Williams. "While a kilogram of hydrogen has approximately the same energy content as a gallon of gasoline, the allowable error is slightly less stringent than for gasoline."

Read more: <https://www.rdmag.com/news/2014/07/nist-develops-prototype-meter-test-hydrogen-refueling-stations-0>

“Pacific Ethanol Awarded \$3 Million Grant to Support Sorghum Feedstock Program”

Pacific Ethanol (Press Release), *The Wall Street Journal*, *Market Watch*, July 28, 2014

SACRAMENTO, Calif., Jul 28, 2014 (GLOBE NEWSWIRE via COMTEX) --

Pacific Ethanol, Inc., the leading producer and marketer of low-carbon renewable fuels in the Western United States, announced it was awarded a \$3 million matching grant from the California Energy Commission to develop a sorghum feedstock program collaboratively with Chromatin, Inc., CSU Fresno's Center for Irrigation Technology and the Kearney Agricultural Research and Extension Center. This undertaking also includes the California In-State Sorghum Program to support a lasting expansion in California's ability to produce low-carbon ethanol from in-state feedstock that meets both the renewable fuel and greenhouse gas reduction goals stipulated under the federal Renewable Fuel Standard and California's Low-Carbon Fuel Standard.

Neil Koehler, the company's president and CEO, stated: "We are honored to receive this important grant, which supports Pacific Ethanol's collaboration with California Agriculture and the other ethanol producers in California toward the long-term development of sorghum feedstock for advanced biofuel production at both our Madera and Stockton California facilities."

Read more: <http://www.marketwatch.com/story/pacific-ethanol-awarded-3-million-grant-to-support-sorghum-feedstock-program-2014-07-28>