



## **T. Boone Pickens Media Coverage 3.4.11-3.7.11**

**Total of 7 Placements** • Print: 3 • Blog/Online: 4

### **Coverage Summary:**

Pickens and environmental business leader Robert F. Kennedy Jr. will be the headliners of a Sustainable Enterprise Conference in Tulsa on April 20.

**Highlighted Placements (Full Articles Below)** • Sustainable Enterprise Conference Coming To Tulsa In April – Oklahoman – 3/4/11

**Print Placements (Full Articles Below)** • Businesses Tired Of Being Subjected To Oil Shocks – Phoenix Business Journal – 3/4/11 • Pickens To Speak At Sustainability Conference – The Daily O’Collegian – 3/4/11

**Blog/Online Placements (Full Articles Below)** • The Libya Factor – American Chronicle – 3/4/11 • Bradley Blakeman: Drill Here Now – [NewsMax.com](http://NewsMax.com) – 3/4/11 • Stepping On The Gas - New Drilling Technologies Shake Up Global Markets – Free **Internet Press** – 3/3/11 • Breaking Up With OPEC – Business Insider – 3/5/11

### **HIGHLIGHTED COVERAGE**

**Sustainable Enterprise Conference Coming To Tulsa In April – Oklahoman – 3/4/11**

Billionaire T. Boone Pickens will be among the speakers addressing how sustainability affects Oklahoma businesses, during an April 20 conference in Tulsa.

Billionaire T. Boone Pickens and environmental business leader Robert F. Kennedy Jr. will be the

headliners of April's Sustainable Enterprise Conference in Tulsa.

The April 20 conference is sponsored by Oklahoma State University's Spears School of Business and the Tulsa Business Forum in cooperation with the Tulsa Metro Chamber.

"I'm not convinced Washington and the rest of America fully understand energy and the issues facing our country," Pickens said. "Conferences like this will address that problem.

"We need to educate ourselves and use everything American to strengthen our energy security."

Pickens has been pushing his own long-term energy plan for the United States, the eponymous Pickens Plan.

The full-day conference at Tulsa's Renaissance Hotel will address how sustainability affects Oklahoma businesses. Pickens and Kennedy will be joined by other national business and sustainable enterprise speakers.

"Oklahoma and regional businesses and government are in the process of coming to grips with how they can best respond to the sustainability imperative," said Spears School Dean Larry Crosby. "This one-day program features some of the most powerful and knowledgeable experts on the topic, and representatives of organizations who are leading the way by incorporating sustainability into their strategies."

Other scheduled speakers include Tim Gratto, vice president of Dr Pepper Snapple; Keith McGlamery, founder of McGlamery Law firm in Washington, D.C.; and Dennis Welch, executive vice president of environment, safety and health and facilities for American Electric Power.

## **NOTABLE NATURAL GAS COVERAGE**

### **PRINT COVERAGE**

#### **Businesses Tired Of Being Subjected To Oil Shocks – Phoenix Business Journal – 3/4/11**

By Kent Hoover

Gasoline prices already were high before a wave of unrest swept across the Middle East and North

Africa, creating a volatile market for crude oil.

Now it looks like America could see a return of \$4-a-gallon gas, a factor that helped weaken the economy in 2008 and could stifle hopes for a strong recovery this year. High gasoline prices hurt companies in two ways: They raise business costs, and they leave customers with less money to buy other things.

“Higher oil prices act as a tax on disposable income,” said William Dudley, president and CEO of the Federal Reserve Bank of New York.

They also could lead airlines to raise airfares and force delivery services to increase fuel surcharges. Trucking companies will make less money not only because diesel fuel will become more expensive, but also because they will have less freight to haul, as consumers will reduce spending on other goods so they can fill up their gas tanks.

The price of a barrel of crude oil in the U.S. topped \$103 on Feb. 24, then dropped a few dollars over the next few days after Saudi Arabia said it would make up for the disruption in Libyan production. There’s no guarantee, however, that oil prices won’t spike again.

If crude oil reaches \$115 a barrel in the second quarter, when the American driving season begins, the U.S. economy would take a significant hit, according to the economics group at Wells Fargo Securities. Such a high price for oil would shave a full percentage point off gross domestic product growth in the second quarter, from a previously projected 3 percent growth rate to 2 percent, according to this forecast.

Business groups back alternatives This latest oil crisis has led business groups to renew their calls to end America’s reliance on foreign oil. The U.S. now imports 60 percent of its crude oil -- a national security risk and an economic vulnerability, according to the Energy Security Leadership Council.

“The country has to mobilize and take some action to finally address this problem, which has been going on now for an awfully long period of time,” said FedEx Corp. Chairman and CEO Fred Smith, who serves as the council’s co-chair.

The council favors increased domestic production of oil and natural gas. It also proposes electrification of short-haul transportation fleets and wants the federal government to help build the infrastructure to make that possible.

Electrification is going slowly at FedEx. The company has about 25 electric light trucks out of its total fleet of 75,000 vehicles. Smith hopes that number will grow dramatically over the next few years as batteries for electric vehicles improve and become more affordable.

President Barack Obama has called for putting 1 million electric cars on the road by 2015. Tax breaks and federal spending to support this goal, however, may not survive Congress' plans to reduce budget deficits.

Meanwhile, T. Boone Pickens, chairman of Dallas-based BP Capital Inc., thinks the nation's trucking industry should convert to vehicles that run on natural gas produced in the U.S.

UPS recently ordered 48 trucks that run on liquefied natural gas to add to its fleet of 1,900 alternative fuel vehicles.

That doesn't mean diesel trucks have become a relic.

"Despite advances in alternative energy, the trucking industry will continue to depend on traditional diesel fuel for the foreseeable future," said Rick Moskowitz, vice president of the American Trucking Associations.

Time to change 'no new wells' policy?

That's why opening more areas of the U.S. to oil production is so important, according to ATA and other business groups.

The launch of a new initial well-containment response system makes deepwater drilling safer, the U.S. Chamber of Commerce contends, so the administration should allow drilling to resume in the Gulf of Mexico.

"Industry has stepped up to the plate, and now government should do the same and end the de facto moratorium to get the Gulf back to work for all Americans," said Karen Harbert, president and CEO of the chamber's Institute for 21st Century Energy.

On Feb. 28, the government issued its first permit for deepwater drilling in the Gulf since the BP oil spill.

Alaska Gov. Sean Parnell said his state, which currently accounts for 11 percent of U.S. oil production, could produce a lot more if federal agencies would end delays in leasing oil fields and permitting new

wells, and open more areas to drilling.

“This is the moment our government must examine its ‘no new wells’ policy,” Parnell said.

The Alaska Wilderness League said the Republican governor’s call for oil exploration in the Arctic is environmentally reckless, and disputed the notion that increased domestic drilling would lead to lower gasoline prices.

Oil produced in the U.S. goes into the world oil market, said league spokesman Emilie Siurusco. Saudi Arabia could ramp down its production as we ramp up ours to keep prices high.

Drilling more oil wells “isn’t going to solve anything,” she said.

National average gasoline prices (for regular unleaded): Feb. 28: \$3.37 Month earlier: \$3.10 Year earlier: \$2.70 Highest ever recorded: \$4.11 (July 17, 2008) Source: AAA’s Daily Fuel Gauge Report  
Top sources of crude oil imports, by barrels per day: 1. Canada: 1,930,000 2. Mexico: 1,140,000 3. Saudi Arabia: 1,080,000 4. Nigeria: 986,000 5. Venezuela: 912,000 6. Iraq: 414,000 7. Angola: 380,000 8. Colombia: 338,000 9. Algeria: 325,000 10. Brazil: 254,000 Source: Energy Information Administration

### **Pickens To Speak At Sustainability Conference – The Daily O’Collegian – 3/4/11**

By Cammilia Holmes

In an effort to increase awareness of the environmental and energy concerns of the U.S., Oklahoma State University alumnus and donor Boone Pickens and business leader Robert F. Kennedy Jr. will speak at OSU's first Sustainable Enterprise Conference. The OSU Spears School of Business will host the all-day conference, which is on April 20 at the Renaissance Hotel in Tulsa. The Tulsa Business Forum is working with the Spears School of Business as well. "This one-day program features some of the most powerful and knowledgeable experts on the topic, and representatives of organizations who are leading the way by incorporating sustainability into their strategies," said Larry Crosby, dean of the Spears School of Business, in a statement. W r a v e n n a Bloomberg, program coordinator for the OSU Center of Executive and Professional Development, said the idea behind the conference is to showcase Oklahoma businesses succeeding in sustainable enterprise and to bring in speakers and leaders with ideas to further develop sustainable practices. Pickens will present the keynote address, and Kennedy will speak during a luncheon presentation. After lunch, OSU President Burns Hargis will join Kennedy and Pickens for a speech on sustainability and the Pickens Plan, his strategy for reducing the nation's

dependence on foreign oil by using wind and other forms of alternative energy. Kennedy will address "Green Gold Rush: A Vision for Energy Independence, Jobs and National Wealth." A networking reception will follow from 4:30-5:15 p.m. Registration is \$265 per person and everyone is welcome, but a limited amount of seating is available. Bloomberg said she recommends attendees register by April 15. Boone Pickens issued this statement: "I'm not convinced Washington and the rest of America fully understand energy and the issues facing our country. Conferences like this will address that problem. We need to educate ourselves and use everything American to strengthen our energy security." Three national businesses and enterprise speakers will join Pickens and Kennedy at the event. Other speakers are Tim Gratto, vice president of Dr Pepper Snapple Group; Keith McGlamery, founder of McGlamery Law firm in Washington, D.C.; and Dennis Welch, executive vice president of environment, safety and health and facilities at American Electric Power. Tyler Wilkins, a law student from Tulsa, said he is looking forward to talking to McGlamery. "My plan for going is mainly to network with employees in the business field and meet McGlamery," Wilkins said. "I have a bunch of questions about his law firm because I am planning to have my own someday, so I hope I can get the chance to talk to him."

## **BLOG/ONLINE COVERAGE**

### **The Libya Factor – American Chronicle – 3/4/11**

By Tim Williams

The first few months of 2011 have become overwhelmed with revolution in the Mid East. Currents of unrest cascaded first upon Egypt and spread to Libya as wave after wave broke on unsuspecting regimes. But as with any revolution comes dire consequences not only for the countries involved but for all those who in one way or another depend on commerce generated by affecting countries. It just so happens that Libya is a major oil producing nation whose leader has used the profits generated by the exportation of oil not for the betterment of the citizens but for self gratification. In 30 or more years in power is how today, Moammar Gadhafi has garnished an estimated net worth of over 50 billion dollars. It was only a matter of time that the people in Libya revolted because of the continuing deplorable conditions that have been evident for far too long.

What makes this revolt much more devastating than the one in Egypt is the exportation of crude oil from Libya. Today, their oil production is almost shut down. Nations like Saudi Arabia who continues to be the ranking oil exporter has indicated that oil production will remain constant what ever the outcome in Libya. There is always a catch! That catch is the price of crude oil has risen and will undoubtedly

continue to escalate to well over \$110 per barrel. Already the United States is feeling the effects of rising prices not only in the rising cost of gas but all the other byproducts that are associated with oil. With the economy still limping along any disruption like rising energy costs only will push the United States economy back almost to the point that recovery is all but impossible.

Every American is now being faced with ever increasing energy costs in a time of economic instability. This is just another realization that the governmental policies since the first oil crisis of 1974 haven't changed all that much. Any distribution in any oil producing nation regardless of whether the United States imports oil from those countries or not causes the American citizen to suffer financially. Today the United States continues to import more oil than ever before. With the amount of oil being imported at a rate of over 700 billion dollars annually from the tax paying public and the escalating costs incurred by all Americans in every thing we purchase is directly proportional to the costs of imported oil.

If there wasn't a better time to reform our energy policies now is about the best time to start. To continue to drain every American's pocketbooks with our outdated energy programs will only exasperate the ongoing deepening economic conditions that are ravaging a nation. If we delay the prognosis is that gas prices will reach again over \$4.00 per gallon by mid summer if not sooner. A repeat of gas hikes of the 2008 but this time the price of gas like everything else will only continue to rise. Compounding this scenario is the fact that those who are still employed and those who are slowly entering the workforce will be subjected to wages that will not even come close to offset the escalating cost of living.

Now that the realization of what is at stake is so apparent our government must come to a consensus on what to do to remedy this ongoing crisis. The United States is so fortunate in that this country has enough natural resources to be totally energy independent. A major stumbling block is that our elected officials in Washington are so reluctant to alter their rationale' in regards to an energy policy that actually reduces costs to the average American. Another road block is that oil companies continue to rake in billions of profit every quarter. A prime example is that after the BP Oil spill in the Gulf of Mexico and after most of the payment of claims and cleanup costs still managed to reap huge profits in each quarter afterwards. It is too bad that with all that revenue coming back to the likes of Exxon Mobil and Chevron haven't yet produced alternate fuel sources at a lower cost for the American consumer. Sure, there is some research and development going on within these companies but most of their profits are returned to their stock holders.

The Pickens Energy Plan was first proposed more than two years ago but so far our illustrious legislature either ignored it or thought it wasn't in "their" best interest. If the government had acted sooner in putting forth an energy policy even remotely similar to the Pickens plan this country would now

be more secure. Time is running out for the United States to act. An energy policy for the 21st century is more that apparent. We have the technology, the resources, but the resolve is still questionable. The sooner we act the sooner the American public will be able to reap the financial and economic rewards that have continued to be so elusive.

## **Bradley Blakeman: Drill Here Now – [NewsMax.com](http://NewsMax.com) – 3/4/11**

By Bradley A. Blakeman

With unrest and turmoil in oil-producing Middle East and North African countries upon which America heavily relies for our domestic oil consumption and with gas prices inching toward \$4 a gallon, now is the time to drastically increase America's own oil production.

Even before the Middle East and North African government meltdowns, many experts were predicting \$4 a gallon gas in 2011 and \$5 a gallon gas in 2012.

How will the unrest in Libya, for instance, affect world gas prices? Well, even though the United States does not buy much oil from Libya, Europe does.

Should Libya cease crude production or seriously limit it, Europeans and others would have to look elsewhere in the world market. More demand on less supply will naturally drive up the world price per barrel of oil.

There are larger Middle East producers of oil, however, that may soon be as politically and socially unstable as Libya is today, which gives great uncertainty to the world market for oil, which also creates a rise in pricing.

Former president of Shell Oil John Hofmeister has been predicting \$5 a gallon gas in 2012 long before the unrest in Middle East and North Africa.

He warned that the rising demand from developing countries like China and India are putting huge demands on the world's supply of oil. The Chinese are scrapping their bikes for cars by millions a month as their standard of living improves.

Hofmeister also warns that the Obama administration's restricting of drilling permits for Gulf of Mexico

deep water production has made America even more dependent on foreign sources of oil.

Hofmeister predicts that if the U.S. government doesn't free up domestic oil production from politically driven regulatory policies, then America will face a return to a 1970s oil crisis, where oil shortages, rationing, and skyrocketing gas prices crippled the U.S. economy and consumer confidence.

Where does America get its oil from today? Here are the top 10 countries America taps for oil imports:

Canada Mexico Saudi Arabia Venezuela Nigeria Angola Iraq Algeria United Kingdom Brazil

According to the U.S. Department of Energy, our net petroleum imports (imports minus exports) account for approximately 58 percent of our total petroleum consumption.

About 50 percent of our petroleum imports are from countries in the western hemisphere, 19 percent from countries in the Persian Gulf, 18 percent from Africa, and 13 percent from other regions.

In 1970, the U.S. imported approximately 24 percent of our oil and today we are approaching 60 percent and growing. At this rate it has been predicted that over the next 10 years, America pay over \$10 trillion to foreign sources for our energy needs.

U.S. Oil man T. Boone Pickens says this will amount to "the greatest transfer of wealth in the history of mankind." America is addicted to foreign oil and many of our foreign suppliers and the world's suppliers of oil are either unfriendly to America or politically and socially unstable.

It is now in America's vital national security and economic interests to become less dependent on foreign oil.

America consumes approximately 25 percent of the world's daily demand for oil yet we represent just 4 percent of the world's population. In a quickly developing world, it does not take a rocket scientist to figure out that America is in big trouble if we do not change our ways.

It is nice to say we need to wean America away from fossil fuels but that must be done over time. In the meantime, we must drastically increase our own domestic oil production, which means drilling and exploring on land and in the sea.

Government's charge is to head off the crisis, not merely to respond to it.

Why is it OK for others to exploit their resources but not acceptable for America to do so? Why are we

content to pay others for oil at outrageous prices but we are unwilling to use our resources for our own immediate needs?

Unless our government steps on the gas and exploits our own oil, gas, and coal production, America will suffer a double dip recession or worse.

In an already weak economy, we need to act boldly and decisively to overcome adversity. Now is the time to be bold. Now is the time to lead.

If our country is serious about becoming energy independent and free from foreign sources of fossil fuel, then we also need to get serious about nuclear energy production. America should build within the next 15 years 200 nuclear power plants throughout our nation.

We should also demand that Yucca Mountain be opened for storage as well as reprocessing. The average time for the permitting and construction of a nuclear power plant is between 8-10 years. The average life span of a nuclear power plant is 30+ years.

Think of the jobs that could be created and the costs that could be amortized over long periods of time to make nuclear power affordable. Think of all the jobs that would be created if America had a "gold rush" attitude toward domestic energy production, exploitation, and exploration.

"Drill baby drill" should be America's mantra in helping to ease our dependence on foreign sources of oil as we seek to transition away from fossil fuels in our not too distant future.

Bradley A. Blakeman served as deputy assistant to President George W. Bush from 2001-04. He is currently a professor of Politics and Public Policy at Georgetown University.

### **Stepping On The Gas - New Drilling Technologies Shake Up Global Markets – Free Internet Press – 3/3/11**

While the world fears a new oil price shock, the entire energy market is on the verge of a revolution. Companies are using increasingly sophisticated technology to tap new sources of natural gas. Drilling is also underway in Germany, where both the potential and the risks seem enormous.

It was May when globalization came to Lebien, a small town in Poland. The telephone rang and Elzbieta Religa answered. The caller said she represented Lane Energy, a subsidiary of a British company that

invests in natural resources. She said her boss wanted to speak with Religa and told her that the company had found something interesting in the earth beneath Lebien's homes and farms.

Religa is a sturdy-looking farmer with three hectares (7.4 acres) of land, 20 hogs and three dogs. Lebien is in the northern Polish region of Kashubia, some 90 kilometers (56 miles) from Gdansk. The town has 960 inhabitants and only its main street is paved. Most of the houses were built by Germans before World War II.

"The woman said there's gas here," says Religa. "Thousands of meters below the earth, locked into the rock, but somehow they can get it out." Religa is currently serving her third term as the Soltys, or mayor, of Lebien. She invited the people from Lane Energy to a meeting at town hall. They arrived in small buses, managers and engineers, Americans, Britons, Canadians and one Indian. The guests paid for a lavish buffet.

The company built its first drilling rig a few months later. One evening, Religa saw a bright light on the other side of a forested area. Lane was burning off the first of the gas being pumped out of the well. The flames were as tall as houses.

Now the drill hole has been sealed with a head-high pipe and three valve wheels. Thanks to the gas, thousands of new jobs will soon be created in Poland -- and elsewhere.

### Tapping Unconventional Sources

In many parts of the world, geologists are now testing the ground for natural gas trapped in shale (shale gas), sandstone (tight gas) or coal seams, gas that has been largely unreachable in the past. Using a new technology called hydraulic fracturing, or "fracking," a sort of controlled earthquake, companies are now bringing the gas to the surface all over the globe, in Australia, China, India, Indonesia, Latin America and Europe. The entire planet is being resurveyed.

The authorities in Poland have awarded 70 concessions for exploratory drilling in the last two years. The race for the best reserves is also in full swing in Canada, where the Chinese are leading the pack. The Chinese energy company PetroChina has just spent \$5.4 billion (€3.9 billion) on a Canadian project.

In the United States, however, the natural gas revolution is the furthest along. Newly discovered reserves there are already being exploited.

About half of the natural gas consumed in the United States now comes from so-called unconventional

sources. The country has already replaced Russia as the world's leading natural gas producer. "We have twice as much gas as the Saudis have oil," boasts Texan investor T. Boone Pickens.

The euphoria is being fueled all the more by current global fears of new oil price shocks. The crisis in the Middle East makes it painfully clear, once again, how dependent the world's economy is on petroleum reserves in the Arab world -- and how sensitively prices and growth react to any changes in the region.

When the unrest began in Libya, the international commodities markets fell into a panic within hours. The oil price, which had hovered around \$80 to \$90 for months, broke through the magic \$100-a-barrel (159 liters) barrier within hours and peaked at about \$117 on Friday.

This was not so much a factor of Libya being such an important supplier on world markets. What had traders and dealers so concerned and triggered worldwide panic buys was the fear that the crisis could spread to the United Arab Emirates (UAE) and Saudi Arabia.

Together, the UAE and Saudi Arabia are sitting on the world's largest oil reserves. Unrest with possible interruptions in delivery would drive the price of oil to astronomic heights. The most recent upturn in the global economy would come to a precipitous end -- yet again.

Since the last oil price crisis in the 1970s, the industrialized nations have been trying to reduce their dependency on oil from the OPEC countries, with moderate success.

The world's thirst for energy is massive, and there are few alternatives to oil. This could make the exploitation of the new natural gas reserves all the more important.

Will Shift to Natural Gas Undermind Renewable Energies?

A revolution has gotten underway at a rate that has even surprised experts. U.S. energy expert Daniel Yergin calls it "the biggest energy innovation of the decade." Today's estimates of the volume of gas reserves considered exploitable are several times higher than a few years ago, with prognoses ranging from two to six times as high as earlier estimates.

So far, though, engineers have not pumped a single cubic meter of gas out of the earth in most places, except in the United States. And even if the prospects are promising, there is always the risk that instead of encountering so-called "sweet spots," or locations with high concentrations of natural gas, engineers will hit "dry holes."

Nevertheless, the expectation is that the energy mix will soon shift significantly toward natural gas. In its latest global energy forecast, ExxonMobil predicts that natural gas will replace coal as the most important source of electricity by 2030.

### A Cascade of Effects

And because only half as much CO<sub>2</sub> is emitted during gas combustion as in coal combustion, the new boom will also have consequences for the world's climate, and for prices in the emissions trading market. The business of trading pollution rights will likely come under pressure, which in turn will affect renewable forms of energy. The cheaper CO<sub>2</sub> rights become, the harder it is for electricity produced with wind power or solar energy to compete in the market.

Hence, the new global gas rush is also triggering a cascade of effects that will change the world energy market and radically change companies. Corporations like Exxon, BP and Shell, which have seen themselves primarily as oil producers for generations, are now investing billions in the gas industry.

Electric utilities like Germany's RWE have to consider whether it will even be economically viable to use coal to generate electricity in the future. And gas distributors like Germany's E.ON Ruhrgas are asking themselves whether their old business models are still viable and what they should do to prepare for the new gas age.

A few weeks ago E.ON Ruhrgas moved into its new headquarters building on the outskirts of the western German city of Essen: two glass towers connected by a glittering steel bridge. Maps are provided at the main entrance to help the roughly 2,000 employees find their way around. The company's strategists could use similar guidance, as Europe's largest gas distributor tries to find a way out of the crisis it faces as a result of the boom in unconventional sources of gas.

Excess supply is depressing prices, allowing Ruhrgas's competitors to undercut the German distributor. It costs Ruhrgas more money just to keep up. "The more cubic meters of gas we buy, the more we have to pay at the moment," says CEO Klaus Schafer. The company recently lost €500 million (\$690 million) -- in only two quarters.

### Shakeup Expected in European Market

Schafer has been at the head of Ruhrgas for only a few months. He was brought in to revive the business, but everyone knows that the days are gone when producers and distributors divided up the

European market. Things will also change for consumers.

This is how the system has worked until now: The big European players, like Gazprom in Russia and Statoil in Norway, exploit their reserves and then transport the gas through thousands of kilometers of pipelines to deliver it to the border of Germany or other European nations. From there, distributors like Ruhrgas or Wintershall feed the gas into their networks and sell it to municipal utilities or industrial customers. It was a profitable business for everyone involved.

Prices were not even negotiated -- they were dictated. Long-term agreements were in place with terms of up to 40 years, and they were based on the so-called gas-oil price link, which means that gas prices follow oil prices, only with a few months' delay. The distributors added a healthy margin of up to 30 percent for the distribution, storage and sale of the gas. For a company like Ruhrgas, this meant that with its roughly €2 billion in annual profits, it was the most important subsidiary within the E.ON group.

But ever since efforts began to tap the new gas reserves, such astronomical profits have been a thing of the past. For the first time, something resembling competition has developed in the gas industry.

The volumes being traded on the spot markets are getting bigger and bigger. New competitors are buying up gas at favorable terms, which benefits consumers, who can now choose from among an average of 31 gas providers, as compared with only eight providers two years ago. "It's a rapid development that's nothing short of a revolution for the international gas markets," says Ruhrgas CEO Schafer.

Now he and his counterparts in the industry have little choice but to renegotiate the terms of their agreements with the producing companies in Moscow and Stavanger, Norway, in the hope of at least making up for some of their losses retroactively. This is no easy task. "There is no reason for price adjustments," says Gazprom Germania CEO Vladimir Kotenev, who points out that the excitement over the new reserves is temporary. The partners have made a lot of money together in the past, says the former Russian ambassador to Germany, and now they'll just have to "endure a dry spell" together.

Geologists have long known that much larger reserves existed in addition to the known, easily exploitable gas wells. The problem was that there were no technologies to extract the gas from the porous rock at a reasonable cost.

**Bad News for Russia**

That has since changed. Today drilling companies can drive their wells thousands of meters beneath the

surface, divert the drill heads and even continue drilling horizontally. The engineers can control their high-tech moles with such great precision that they can reach a target location, down to the last meter, even when it's eight kilometers (about five miles) away. Once the target has been reached, an armada of vehicles, the "frack trucks," is dispatched to the well site.

The trucks bring giant 2,400 horsepower pumps to the site, where about a dozen of these monsters are connected. They force a fluid mixture into the gas deposit at a pressure of about 1,000 bar. The mixture consists of millions of liters of water, special sand and chemicals, including toxic substances. Some of the chemicals are designed to kill bacteria that inhibit the flow of gas. The process produces enough pressure underground to fracture the rock.

This creates fine cracks, some of them hundreds of meters long. The sand keeps the fractures open, hence the term "fracking," or fracturing. The fluid is pumped out of the well and the gas escapes like carbon dioxide from a soft-drink bottle: powerfully at first, and then more slowly for several months until the pressure is so low that the fracking procedure has to be repeated.

It wasn't major corporations like Exxon, Shell and BP that developed this method, but small drilling companies funded by venture capital companies that believed in the revolution. They began drilling in Texas in the 1990s, in a formation called the Barnett Shale, now one of the largest natural gas fields in the world.

Today fracking is being used to pump natural gas out of about 3,000 wells in the United States, with 120 to 150 wells being added every month. "It's become (normal) manufacturing," says Andrew Ross, managing director of Elixir Petroleum. The actual procedure lasts only about a week, and then the fracking team moves on to the next on a long list of wells.

Production using this new method is generally more expensive than with a conventional gas well, but there has been some progress in bringing down costs. The drilling engineers at Talisman Energy, for example, managed to cut costs in half in the Marcellus Shale field in the northeastern United States.

#### Pressure Will 'Help Keep Prices Down'

With each new project, more and more gas floods into the market, which is already saturated today, as evidenced by price trends in the United States. Almost every other commodity has become more expensive in the last year, while the price of natural gas has dropped by 27 percent. And the pricing pressure could continue if the gas supply keeps growing, says John Corben, of the International Energy

Agency in Paris. "It will help keep prices down."

This is bad news for Russia. The Kremlin derives a large share of its national budget from the exploitation of mineral resources. The Russians have invested billions in the infrastructure needed to develop key markets in Europe for the long term. That infrastructure includes the Nord Stream pipeline through the Baltic Sea, which is slated to go into operation later this year.

The final preparations are now underway at the construction site in Lubmin on Germany's Baltic Sea coast. This is where the pipes emerge from the waters of the Bay of Greifswald, marking the end of the two 1,224-kilometer (765-mile) pipelines that were installed on the sea floor using special ships. Just past the beach in Lubmin, workers are building giant valves, each as tall as a two-story building. The valves will regulate the flow of gas in the future. Nord Stream is expected to supply about 26 million households with electricity and heat.

But whether the investment will pay off is still unclear. The old calculations, from the days when the gas-oil price link was still fully applicable, are now obsolete. Even less clear is the outlook for the two other major European projects: South Stream, which will link Russia with Europe farther south, and, most of all, for Nabucco, the European Union alternative, which will transport gas from non-Russian suppliers and is intended to make Europe less dependent on Russia. Companies within the Nabucco consortium are already in exploratory talks with the European Union, with the goal of bringing together segments of the Nabucco and South Stream projects, currently competitors.

Will Poland Become Next Norway?

In addition to changing worldwide energy markets, the emergence of new gas sources is leading to shifts in the global balance of power. Indeed, the dominant position of classic production countries, especially Russia, could soon erode strongly. Poland, on the other hand, could become a relevant player in the global market. Polish Foreign Minister Radoslaw Sikorski already envisions transforming his country into the "next Norway" -- rich, important and independent -- particularly of its giant neighbor Russia.

The United States, for its part, is on a sure path to becoming a self-provider and even exporter instead of a gas importer. The new developments will "significantly improve the energy security of the United States," raves President Barack Obama.

The world market is expanding, the selection is broadening and the consuming countries are becoming less dependent on the producing countries. Germany still gets 40 percent of its natural gas from Russia,

but it is quite possible that more and more gas will be coming from the United States in the future. A gas rush has even erupted in Germany, a country with few natural resources.

About a dozen companies have already staked claims in the western states of North Rhine-Westphalia and Lower Saxony, where they are searching for economically viable deposits. The most promising site to date is in a field near Lunne, a town with a population of 1,900 in the Elmsland region.

Exxon has erected a massive drilling rig in a field where corn was growing a year ago. The energy company is pumping rock samples the surface from a depth of about 1,500 meters (4,920 feet). Its goal is to find out whether it is worthwhile to produce natural gas, using the new methods, in this region about 40 kilometers from the Dutch border.

### Is Drilling a Threat to Idyllic Landscape?

Workers in orange overalls are pattering around with the drill pipes. The men are engineers with a Scottish specialty company Exxon hired to sink the well, as the work is referred to in the industry. The teams work day and night. Floodlights keep the Lunne 1 site bathed in bright light.

"It looks like a football field here," says Markus Rolink. He and his wife and their three children live only a field away from the drilling site. The 37-year-old teacher at a special needs school, sporting an earring and a five-day beard, says that he hadn't planned to become politically involved again, ever since campaigning for the Green Party as a university student. But he changed his mind when he heard about the drilling plans.

Rolink is worried that this idyllic rural landscape could soon be destroyed, especially when trucks carrying chemicals start rumbling down the road to the drill site. He is also concerned about the possibility of future accidents. "Then we'll have plenty of energy, but no water," he says sarcastically.

### 'Who Will Want to Live Here Anymore?'

Rolink and his neighbors have joined forces and formed the Schones Lünne (Beautiful Lunne) initiative. About 80 Lunne residents have come together for an evening meeting at a local farm, where they are sitting on wooden benches in a barn heated with a woodstove. They are watching a TV report about fracking in the United States that aired on German public broadcaster ARD. The film portrays people who could no longer sell their houses, polluted water and elevated cancer rates.

"Who will want to live here anymore?" a woman asks, breaking the silence after the film ends. A farmer

says she is worried about her crops and wants to know what will happen if the fracking fluid leaks into the topsoil. "Who will liable?" The more the local residents discuss the issue, the more anxious and determined to resist gas drilling they become. "We have to think about ways to fight this," says one man. "All I can say is: Gorleben." He's referring to the controversial experimental storage site for nuclear waste in Germany.

Opposition to the gas industry's plans is taking shape, and not just in the Emsland region. In the neighboring state of North Rhine-Westphalia, where drilling companies are perforating coal seams to search for gas, citizens are organizing against the efforts. Many have seen "Gasland," the film by U.S. director Josh Fox, who uses a suggestive style similar to that of filmmaker Michael Moore ("Fahrenheit 9/11") in his indictment of the industry.

In the most powerful scene in the film, Fox shows a man using a lighter to set the water coming from a faucet on fire. Fox claims that fracking has contaminated groundwater with toxic gas. It's a controversial charge, with U.S. authorities insisting that the drilling cannot be blamed, at least not in this case. But despite its contradictions, Fox has made an impact with such images. He has alarmed citizens -- and the industry, now that "Gasland" was nominated for an Oscar in the Best Documentary Feature category.

Elixir Petroleum's Ross calls the nomination incomprehensible and says that the film really belongs in the comedy category. Energy in Depth, an industry association, even warned against awarding the Oscar to a film filled with such "mistakes, inconsistencies and lies."

'We Have to Answer Questions'

It's up to the industry to take the initiative and explain the technology, says Bruno Courme, managing director of Gas Shales Europe, a subsidiary of French energy conglomerate Total. "We have to answer questions," he says. And there are many of them.

One is about the ingredients of the fracking fluid that's injected into the rock. Even more important: How contaminated is the sludge that shoots back up to the surface? And how is it properly disposed of? The wastewater contains large amounts of salt, and it often contains benzene, xylene and toluene, all highly toxic substances that could contaminate groundwater.

The gas industry's engineers insist that contact with groundwater is highly unlikely, because the layers of rock containing the gas are so much deeper. But they do admit to other potential weak points, for instance, when the steel pipes in the borehole are not properly cemented together. The U.S.

environmental authorities have documented a number of such accidents, in which wastewater has harmed the environment.

Not everything is going swimmingly in the German gas production industry, either. In Sohlingen, where Exxon is producing natural gas, wastewater containing toxic chemicals was leaked from the site about three years ago. Citizens' initiatives have since demanded that the authorities tighten their inspection regimens. Many regulations of Germany's outdated mining law are not relevant to the new technologies.

Green Party members of the German parliament, the Bundestag, want to change this. "Citizens need to be more involved," says Oliver Krischer, the party's energy policy expert. The North Rhine-Westphalia state government is also pushing for a revision of the law and plans to launch an initiative in the Bundesrat, the upper legislative chamber that represents Germany's states.

One way or another, it will take years before the data from the exploratory drilling have been analyzed and producers have decided whether the German sites are worth exploiting. Only one thing is clear, namely that gas's share of the energy mix worldwide will keep on growing and the fuel will become more important, which will also have consequences for the gas supply in Germany. "Precisely this circumstance opens up new possibilities," says RWE executive board member Leonhard Birnbaum.

In all likelihood, gas-fired power plants will become increasingly common, replacing old coal plants. They would be the ideal supplement to a fluctuating flow of energy from renewable sources. Gas also offers new prospects as a fuel. Logistics companies in the United States are already thinking about converting their fleets to natural gas. The old postulate that natural gas is too valuable to burn is no longer true.

"A lot of things that didn't make much sense a few years ago" says Ruhrgas CEO Schafer, now have to be "reevaluated." Apparently, this also holds true for the national energy plan the German government unveiled last fall. Natural gas plays only a secondary role in the document, because the experts had based their assumptions on higher prices and smaller reserves.

In the end, issues of geology are probably not as likely to hold up the gas revolution. The biggest obstacle, says London antitrust expert Alan Riley, lies in the question of whether society will accept unconventional drilling for natural gas -- and, of course, whether the gas price will decouple itself from the oil price in the long term.

Ruhrgas CEO Schafer, at any rate, is convinced that the trend "is unstoppable, especially given the current price developments in the oil markets."

## **Breaking Up With OPEC – Business Insider – 3/5/11**

By Bob van der Valk

We are in the middle of world events that may result in the eventual break-up of the 'Organization of the Petroleum Exporting Countries' (OPEC), which is an intergovernmental organization of twelve developing countries, made up of Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela (See Chart). OPEC is considered a cartel with most of its members controlled by varying forms of essentially autocratic system of governments.

The start of the break up may have been on September 10, 2008, when the Saudis walked out of OPEC negotiating session in Vienna where the organization voted to reduce production. Although Saudi Arabian OPEC delegates officially endorsed the new quotas, they stated anonymously that they would not observe them. One of their delegates was quoted as saying “Saudi Arabia will meet the market’s demand. We will see what the market requires and we will not leave a customer without oil. The policy has not changed.”

The U.S. imports crude oil from many other countries, but three OPEC members are still among the top five of countries from which we directly receive shipment of that precious commodity. Here is how they rank per the latest report from the EIA:

### **December 2010 Import Highlights: Released February 25, 2011**

However, breaking up with OPEC may be pulled off without the Western nations having to fire one shot. That old Neil Sedaka song "Breaking up is hard to do" comes to mind when you realize our love-hate relationship may finally lead to a divorce that will relieve the U.S. from our dependency on imports from some hostile countries. That leads to the reason for this article on why OPEC's existence may be in its final throes and is coming to an end.

“Ummah” means unity among Muslims - One nation and one people. Many have tried to bring Ummah to the Muslim nations.....and failed, with oil prices spiking tick-by-tick to geopolitical events in the Middle East and North Africa (MENA).

The invasion of Kuwait by Saddam Hussein brought the United States and England into the region to liberate Kuwait. This cycle continues even today with vast crude oil reserves at stake. Since then, the region has been in constant turmoil with half a million casualties in the six-year war between Iran and

Iraq alone in the 1980's. Now, the Bahrain and Yemen conflicts are continuing with Egypt, Morocco and now Libya prominently in the news.

Disruptions have spread across MENA. Libya's 1.6 million barrel crude oil exports are almost entirely halted and renewed unrest in Oman, Iran and Iraq have rattled crude oil traders. An interruption of shipments from any of those countries would further tighten oil supplies, even as Saudi Arabia has rushed to fill the vacuum of Libyan supplies by pumping more oil from its fields.

Oman, which is a normally stable Persian Gulf country, ruled by a family dynasty and the largest non-OPEC oil producer in the Middle East, is now in trouble as well.

Refiners around the world have been hoping that Iraq, as violence ebbed, would again become a major oil producer, with production stabilizing at 2.3 million barrels a day. But rebels bombed the country's largest refinery, reducing the refinery's capacity to refine petroleum products by 75,000 barrels a day. This was on top of a terrorist attack on a pipeline leading to a second refinery north of Baghdad.

Saudi Arabia has a total production capacity of 12.5 million barrels a day, and currently produces nine million barrels after increasing its output by several hundred thousand since the beginning of 2011. Saudi Arabia said they are ready to pump what it takes to fill any supply gap, but much of its 3.5 million barrel excess capacity contains sour crudes, which does not easily replace the Libyan sweet crude European refineries in particular desire to produce diesel.

Donald Trump recently responded to speculation that the turmoil in Egypt and other countries in the Middle East could push oil prices to as high as \$200 a barrel by stating that "The Middle East...is going to explode. OPEC will probably be destroyed if it explodes, and oil prices could go the other way."

T. Boone Pickens, a veteran oilman, also put a short-term oil price spike to \$120 at a recent CNBC interview, and reiterated the United States needs an energy policy that addresses lessening OPEC-dependence.

Both Pickens and Trump may just be correct that the current revolts and conflicts in the Middle East and North Africa will cause an upheaval in the world oil markets enough to bring about the end of OPEC.

We will have to change from humming that Neil Sedaka song to learning the lyrics to "O Canada" and "Himno Nacional Mexicano".

About The Author - Bob van der Valk is an Independent Consultant with over 50 years of experience in

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