# FOUR ARTICLES BY JOURNALIST IAN URBINA (AND PUBLIC COMMENTS) FROM THE NEW YORK TIMES

**JUNE, 2011** 

### REGARDING HYPE ON NATURAL GAS FROM FRACKING

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### Insiders Sound an Alarm Amid a Natural Gas Rush



Jennifer Pitts/The Journal Record, via Associated Press, left; Mark Peristein for The New York Times

"It's time to get bullish on natural gas," said Aubrey K. McClendon, left, chief executive of Chesapeake Energy. "This could have profound consequences for our local economy," said Deborah Rogers, a committee member at the Federal Reserve Bank of Dallas.

By Ian Urbina New York Times June 25, 2011

Natural gas companies have been placing enormous bets on the wells they are drilling, saying they will deliver big profits and provide a vast new source of energy for the United States.

But the gas may not be as easy and cheap to extract from shale formations deep underground as the companies are saying, according to <a href="https://example.com/hundreds/multi-numerical

In the e-mails, energy executives, industry lawyers, state geologists and market analysts voice skepticism about lofty forecasts and question whether companies are intentionally, and even illegally, overstating the productivity of their wells and the size of their reserves. Many of these e-mails also suggest a view that is in stark contrast to more bullish public comments made by the industry, in much the same way that insiders have raised doubts about previous financial bubbles.

"Money is pouring in" from investors even though shale gas is "inherently unprofitable," an analyst from PNC Wealth Management, an investment company, <u>wrote to a contractor in a February email</u>. "Reminds you of dot-coms."

"The word in the world of independents is that the shale plays are just giant Ponzi schemes and the economics just do not work," an analyst from IHS Drilling Data, an energy research company, wrote in an e-mail on Aug. 28, 2009.

Company data for more than 10,000 wells in three major shale gas formations raise further questions about the industry's prospects. There is undoubtedly a vast amount of gas in the formations. The question remains how affordably it can be extracted.

The data show that while there are some very active wells, they are often surrounded by vast zones of less-productive wells that in some cases cost more to drill and operate than the gas they produce is worth. Also, the amount of gas produced by many of the successful wells is falling much faster than initially predicted by energy companies, making it more difficult for them to turn a profit over the long run.

If the industry does not live up to expectations, the impact will be felt widely. Federal and state lawmakers are considering drastically increasing subsidies for the natural gas business in the hope that it will provide low-cost energy for decades to come.

But if natural gas ultimately proves more expensive to extract from the ground than has been predicted, landowners, investors and lenders could see their investments falter, while consumers will pay a price in higher electricity and home heating bills.

There are implications for the environment, too. The technology used to get gas flowing out of the ground — called hydraulic fracturing, or hydrofracking — can require over a million gallons of water per well, and some of that water must be disposed of because it becomes contaminated by the process. If shale gas wells fade faster than expected, energy companies will have to drill more wells or hydrofrack them more often, resulting in more toxic waste.

The e-mails were obtained through open-records requests or provided to The New York Times by industry consultants and analysts who say they believe that the public perception of shale gas does not match reality; names and identifying information were redacted to protect these people, who were not authorized to communicate publicly. In the e-mails, some people within the industry voice grave concerns.

"And now these corporate giants are having an Enron moment," a retired geologist from a major oil and gas company wrote in a February e-mail about other companies invested in shale gas. "They want to bend light to hide the truth."

Others within the industry remain optimistic. They argue that shale gas economics will improve as the price of gas rises, technology evolves and demand for gas grows with help from increased federal subsidies being considered by Congress. "Shale gas supply is only going to increase," Steven C. Dixon, executive vice president of Chesapeake Energy, said at an energy industry conference in April in response to skepticism about well performance.

#### **Studying the Data**

"I think we have a big problem."

Deborah Rogers, a member of the advisory committee of the Federal Reserve Bank of Dallas, recalled saying that in a May 2010 conversation with a senior economist at the Reserve, Mine K. Yucel. "We need to take a close look at this right away," she added.

A former stockbroker with Merrill Lynch, Ms. Rogers said she started studying well data from shale companies in October 2009 after attending a speech by the chief executive of Chesapeake, Aubrey K. McClendon. The math was not adding up, Ms. Rogers said. Her research showed that wells were petering out faster than expected.

"These wells are depleting so quickly that the operators are in an expensive game of 'catch-up,' "Ms. Rogers wrote in an e-mail on Nov. 17, 2009, to a petroleum geologist in Houston, who wrote back that he agreed.

"This could have profound consequences for our local economy," she explained in the e-mail.

Fort Worth residents were already reeling from the sudden reversal of fortune for the natural gas industry.

In early 2008, energy companies were scrambling in Fort Worth to get residents to lease their land for drilling as they searched for so-called monster wells. Billboards along the highways stoked the boom-time excitement: "If you don't have a gas lease, get one!" Oil and gas companies were in a fierce bidding war for drilling rights, offering people bonuses as high as \$27,500 per acre for signing leases.

The actor Tommy Lee Jones signed on as a pitchman for Chesapeake, one of the largest shale gas companies. "The extremely long-term benefits include new jobs and capital investment and royalties and revenues that pay for public roads, schools and parks," he said in one television advertisement about drilling in the Barnett shale in and around Fort Worth.

To investors, shale companies had <u>a more sophisticated pitch</u>. With better technology, they had refined a "manufacturing model," they said, that would allow them to drop a well virtually anywhere in certain parts of a shale formation and expect long-lasting returns.

For Wall Street, this was the holy grail: a low-risk and high-profit proposition. But by late 2008, the recession took hold and <u>the price of natural gas plunged</u> by nearly two-thirds, throwing the drilling companies' business model into a tailspin.

In Texas, the advertisements featuring Mr. Jones disappeared. Energy companies rescinded high-priced lease offers to thousands of residents, which prompted class-action lawsuits. Royalty checks dwindled. Tax receipts fell.

The impact of the downturn was immediate for many.

"Ruinous, that's how I'd describe it," said the Rev. Kyev Tatum, president of the Fort Worth chapter of the Southern Christian Leadership Conference.

Mr. Tatum explained that dozens of black churches in Fort Worth signed leases on the promise of big money. Instead, some churches were told that their land may no longer be tax exempt even though they had yet to make any royalties on the wells, he said.

That boom-and-bust volatility had raised eyebrows among people like Ms. Rogers, as well as energy analysts and geologists, who started looking closely at the data on wells' performance.

In May 2010, the Federal Reserve Bank of Dallas called a meeting to discuss the matter after prodding from Ms. Rogers. One speaker was Kenneth B. Medlock III, an energy expert at Rice University, who described a promising future for the shale gas industry in the United States. When he was done, Ms. Rogers peppered him with questions.

Might growing environmental concerns raise the cost of doing business? If wells were dying off faster than predicted, how many new wells would need to be drilled to meet projections?

Mr. Medlock conceded that production in the Barnett shale formation — or "play," in industry jargon — was indeed flat and would probably soon decline.

"Activity will shift toward other plays because the returns there are higher," he predicted. Ms. Rogers turned to the other commissioners to see if they shared her skepticism, but she said she saw only blank stares.

#### **Bubbling Doubts**

Some doubts about the industry are being raised by people who work inside energy companies, too.

"Our engineers here project these wells out to 20-30 years of production and in my mind that has yet to be proven as viable," wrote a geologist at Chesapeake in <u>a March 17 e-mail</u> to a federal energy analyst. "In fact I'm quite skeptical of it myself when you see the % decline in the first year of production."

"In these shale gas plays no well is really economic right now," the geologist said in <u>a previous e-mail to the same official on March 16</u>. "They are all losing a little money or only making a little bit of money."

Around the same time the geologist sent the e-mail, Mr. McClendon, Chesapeake's chief executive, told investors, "It's time to get bullish on natural gas."

In September 2009, a geologist from ConocoPhillips, one of the largest producers of natural gas in the Barnett shale, warned in <u>an e-mail to a colleague</u> that shale gas might end up as "the world's largest uneconomic field." About six months later, the company's chief executive, James J. Mulva, described natural gas as "nature's gift," adding that "rather than being expensive, shale gas is often the low-cost source." Asked about the e-mail, John C. Roper, a spokesman for ConocoPhillips, said he absolutely believed that shale gas is economically viable.

A big attraction for investors is the increasing size of the gas reserves that some companies are reporting. Reserves — in effect, the amount of gas that a company says it can feasibly access from its wells — are important because they are a central measure of an oil and gas company's value.

Forecasting these reserves is a tricky science. Early predictions are sometimes lowered because of drops in gas prices, as happened in 2008. Intentionally overbooking reserves, however, is illegal because it misleads investors. Industry e-mails, mostly from 2009 and later, include language from oil and gas executives questioning whether other energy companies are doing just that.

The e-mails do not explicitly accuse any companies of breaking the law. But the number of e-mails, the seniority of the people writing them, the variety of positions they hold and the language they use — including comparisons to Ponzi schemes and attempts to "con" Wall Street — suggest that questions about the shale gas industry exist in many corners.

"Do you think that there may be something suspicious going with the public companies in regard to booking shale reserves?" a senior official from Ivy Energy, an investment firm specializing in the energy sector, wrote in a 2009 e-mail.

A former Enron executive wrote in 2009 while working at an energy company: "I wonder when they will start telling people these wells are just not what they thought they were going to be?" He added that the behavior of shale gas companies reminded him of what he saw when he worked at Enron.

Production data, provided by companies to state regulators and reviewed by The Times, show that many wells are not performing as the industry expected. In three major shale formations — the Barnett in Texas, the Haynesville in East Texas and Louisiana and the Fayetteville, across Arkansas — less than 20 percent of the area heralded by companies as productive is emerging as likely to be profitable under current market conditions, according to the data and industry analysts.

Richard K. Stoneburner, president and chief operating officer of Petrohawk Energy, said that looking at entire shale formations was misleading because some companies drilled only in the best areas or had lower costs. "Outside those areas, you can drill a lot of wells that will never live up to expectations," he added.

Although energy companies routinely project that shale gas wells will produce gas at a reasonable rate for anywhere from 20 to 65 years, these companies have been making such predictions based on limited data and a certain amount of guesswork, since shale drilling is a relatively new practice.

Most gas companies claim that production will drop sharply after the first few years but then level off, allowing most wells to produce gas for decades.

Gas production data reviewed by The Times suggest that many wells in shale gas fields do not level off the way many companies predict but instead decline steadily.

"This kind of data is making it harder and harder to deny that the shale gas revolution is being oversold," said Art Berman, a Houston-based geologist who worked for two decades at Amoco and has been one of the most vocal skeptics of shale gas economics.

The Barnett shale, which has the longest production history, provides the most reliable case study for predicting future shale gas potential. The data suggest that if the wells' production continues to decline in the current manner, many will become financially unviable within 10 to 15 years.

A review of more than 9,000 wells, using data from 2003 to 2009, shows that — based on widely used industry assumptions about the market price of gas and the cost of drilling and operating a well — less than 10 percent of the wells had recouped their estimated costs by the time they were seven years old.

Terry Engelder, a professor of geosciences at Pennsylvania State University, said the debate over long-term well performance was far from resolved. The Haynesville shale has not lived up to early expectations, he said, but industry projections have become more accurate and some wells in the Marcellus shale, which stretches from Virginia to New York, are outperforming expectations.

#### A Sense of Confidence

Many people within the industry remain confident.

"I wouldn't worry about these shale companies," said T. Boone Pickens, the oil and gas industry executive, adding that he believes that if prices rise, shale gas companies will make good money.

Mr. Pickens said that technological improvements — including hydrofracking wells more than once — are already making production more cost-effective, which is why some major companies like ExxonMobil have recently bought into shale gas.

Shale companies are also adjusting their strategies to make money by focusing on shale wells that produce lucrative liquids, like propane and butane, in addition to natural gas.

Asked about the e-mails from the Chesapeake geologist casting doubt on company projections, a Chesapeake spokesman, Jim Gipson, said the company was fully confident that a majority of wells would be productive for 30 years or more.

David Pendery, a spokesman for IHS, added that though shale gas prospects had previously been debated by many analysts, in more recent years costs had fallen and technology had improved.

Still, in private exchanges, many industry insiders are skeptical, even cynical, about the industry's pronouncements. "All about making money," an official from Schlumberger, an oil and gas services company, wrote in <u>a July 2010 e-mail</u> to a former federal regulator about drilling a well in Europe, where some United States shale companies are hunting for better market opportunities.

"Looks like crap," the Schlumberger official wrote about the well's performance, according to the regulator, "but operator will flip it based on 'potential' and make some money on it."

"Always a greater sucker," the e-mail concluded.

Robbie Brown contributed reporting from Atlanta.

## **Documents: Industry Privately Skeptical of Shale Gas**

Over the past six months, The New York Times reviewed thousands of pages of documents related to shale gas, including hundreds of industry e-mails, internal agency documents and reports by analysts. A selection of these documents is included here; names and identifying information have been redacted to protect the confidentiality of sources, many of whom were not authorized by their employers to communicate with The Times.

#### EXPLORE THE DOCUMENTS

#### Signs of Trouble

- Shale Gas Called a "Ponzi Scheme"
- Where is the S.E.C.?
- Drill Fast, Con Wall Street
- "Always a Greater Sucker..."
- "Corporate Hubris and Bad Science" May Lead to "Enron Moment"
- <u>Drilling for Press Release Purposes</u>

#### Stoking Excitement About Shale Gas

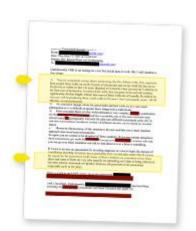
- Flipping Leases Is More Profitable Than Producing Gas
- Company Reveals Optimistic Assumptions
- Investor Presentation Stokes Shale Gas Rush
- Company Coloring Book: Shale Gas for Kids

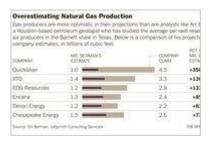
#### **Industry Doubts on Shale Gas Economics**

- "World's Largest Uneconomic Field"
- "A Herd Mentality" on Shale Gas
- Shale Gas Inherently Unprofitable, Official Says
- Shale Wells Not Economic, Chesapeake Geologist Says
- Media Is Ignoring Costs, Investment Analyst Says
- Financial Hype on Shale Gas Is Difficult to Understand

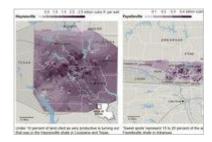
#### **Questioning Company Claims**

- "Aggressive" Accounting
- Hidden Costs
- Engineers Question Methods
- Marcellus Sweet Spots Emerge





#### **Overestimating Natural Gas Production**



Sweet Spots, but Not Many

## **Behind Veneer, Doubt on Future of Natural Gas**



A drilling operation in Texas. In documents, Energy Information Administration officials voice skepticism.

By Ian Urbina New York Times June 26, 2011

Energy companies have worked hard to promote the idea that natural gas is the fossil fuel of tomorrow, and they have found reliable allies among policy makers in Washington.

"The potential for natural gas is enormous," President Obama said in a speech this year, having cited it as an issue on which Democrats and Republicans can agree.

The Department of Energy boasts in news releases about helping jump-start the boom in drilling by financing some research that made it possible to tap the gas trapped in shale formations deep underground.

In its annual forecasting reports, the United States Energy Information Administration, a division of the Energy Department, has steadily increased its estimates of domestic supplies of natural gas, and investors and the oil and gas industry have repeated them widely to make their case about a prosperous future.

But not everyone in the Energy Information Administration agrees. In scores of <u>internal e-mails and documents</u>, officials within the Energy Information Administration, or E.I.A., voice skepticism about the shale gas industry.

One official says the shale industry may be "<u>set up for failure</u>." "It is quite likely that many of these companies will go bankrupt," a senior adviser to the Energy Information Administration <u>administrator predicts</u>. Several officials echo concerns raised during previous bubbles, in housing and in technology stocks, for example, that ended in a bust.

Energy Information Administration employees also explain in e-mails and documents, copies of which were obtained by The New York Times, that industry estimates might overstate the amount of gas that companies can affordably get out of the ground.

They discuss the uncertainties about how long the wells will be productive as well as the high prices some companies paid during the land rush to lease mineral rights. They also raise concerns about the unpredictability of shale gas drilling.

One senior Energy Information Administration official describes an "irrational exuberance" around shale gas. An internal Energy Information Administration document says companies have exaggerated "the appearance of shale gas well profitability," are highlighting the performance of only their best wells and may be using overly optimistic models for projecting the wells' productivity over the next several decades.

While there are environmental and economic benefits to natural gas compared with other fossil fuels, its widespread popularity as an energy source is relatively new. As a result, it has not received the same level of scrutiny, according to some environmentalists and energy economists.

The Energy Information Administration e-mails indicate that some of these difficult questions are being raised.

"Am I just totally crazy, or does it seem like everyone and their mothers are endorsing shale gas without getting a really good understanding of the economics at the business level?" an energy analyst at the Energy Information Administration wrote in an April 27 e-mail to a colleague.

Another e-mail expresses similar doubts. "I agree with your concerns regarding the euphoria for shale gas and oil," wrote a senior officialin the forecasting division of the Energy Information Administration in an April 13 e-mail to a colleague at the administration.

"We might be in a 'gold rush' wherein a few folks have developed 'monster' wells," he wrote, "so everyone assumes that all the wells will be 'monsters.'

The Energy Information Administration's annual reports are widely followed by investors, companies and policy makers because they are considered scientifically rigorous and independent from industry. They also inform legislators' initiatives. Congress, for example, has been considering major subsidies to promote vehicles fueled by natural gas and cutting taxes for the industry.

In any organization as big as the Energy Information Administration, with its 370 or so employees, there inevitably will be differences of opinion, particularly in private e-mails shared among colleagues. A spokesman for the agency said that it stands by its reports, and that it has been clear about the uncertainties of shale gas production.

"One guiding principle that we employ is, 'look at the data,' " said Michael Schaal, director of the Office of Petroleum, Natural Gas and Biofuels Analysis within the Energy Information Administration. "It is clear the data shows that shale gas has become a significant source of domestic natural gas supply."

But the doubts and concerns expressed in the e-mails and correspondence obtained by The Times are noteworthy because they are shared by many employees, some of them in senior roles. The documents and e-mails, which were provided to The Times by industry consultants, federal energy officials and Congressional researchers, show skepticism about shale gas economics, sometimes even from senior agency officials.

The e-mails were provided by several people to The Times under the condition that the names of those sending and receiving them would not be used.

Some of the e-mails suggest frustrations among the staff members in their attempt to push for a more accurate discussion of shale gas. One federal analyst, describing an Energy Information Administration publication on shale gas, complained that the administration shared the industry's optimism. "It seems that science is pointing in one direction and industry PR is pointing in another," wrote the analyst about shale gas drilling in an e-mail. "We still have to present the middle, even if the middle neglects to point out the strengths of scientific evidence over PR."

The Energy Information Administration, with its mission of providing "independent and impartial energy information to promote sound policymaking" and "efficient markets," was created in response to the energy crisis of the 1970s because lawmakers believed that sound data could help the country avoid similar crises in the future.

As a protection from industry or political pressure, the Energy Information Administration's reports, by law, are supposed to be independent and do not require approval by any other arm of government.

Its administrator, Richard G. Newell, who announced this month his plans to resign to take a job at Duke University, has hailed the prospects for shale gas, calling it a "game changer" in the United States energy mix. "The energy outlook for natural gas has changed dramatically over the past several years," Mr. Newell told the Natural Gas Roundtable, a nonprofit group tied to the American Gas Association. "The most significant story is the transformative role played by shale gas."

A number of factors have also helped create more interest in shale gas. The nuclear disaster in Japan in March has focused attention on the promise of natural gas as a safer energy source.

And last year, as energy market analysts warned about tougher federal regulations on oil and coal, particularly after the BP oil spill and the Massey coal mining accident, they also pointed to natural gas as a more attractive investment.

But a look at the Energy Information Administration's methods raises questions about its independence from energy companies, since the industry lends a helping hand to the government to compile those bullish reports.

The Energy Information Administration, for example, relies on research from outside consultants with ties to the industry. And some of those consultants pull the data they supply to the government from energy company news releases, according to Energy Information Administration e-mails. Projections about future supplies of natural gas are based not just on science but also some guesswork and modeling.

Two of the primary contractors, Intek and Advanced Resources International, provided shale gas estimates and data for the Energy Information Administration's major annual forecasting reports on domestic and foreign oil and gas resources. Both of them have major clients in the oil and gas industry, according to corporate tax records from the contractors. The president of Advanced Resources, Vello A. Kuuskraa, is also a stockholder and board member of Southwestern Energy, an energy company heavily involved in drilling for gas in the Fayetteville shale formation in Arkansas.

The contractors said they did not see any conflict of interest. "Firstly, the report is an extremely transparent assessment," said Tyler Van Leeuwen, an analyst at Advanced Resources, adding that many experts agreed with its conclusions and that by identifying promising areas, the report heightened competition for Southwestern.

Intek verified that it produced data for Energy Information Administration reports but declined to comment on questions about whether, given its ties to industry, it had a conflict of interest.

Some government watchdog groups, however, faulted the Energy Information Administration for not maintaining more independence from industry.

"E.I.A.'s heavy reliance on industry for their analysis fundamentally undermines the agency's mission to provide independent expertise," said Danielle Brian, the executive director of the Project on Government Oversight, a group that investigates federal agencies and Congress.

"The Chemical Safety Board and the National Transportation Safety Board both show that government agencies can conduct complex, niche analysis without being captured or heavily relying upon industry expertise," Ms. Brian added, referring to two independent federal agencies that conduct investigations of accidents.

These sorts of concerns have also led to complaints within the administration itself.

<u>In an April 27 e-mail</u>, a senior petroleum geologist who works for the Energy Information Administration wrote that upper management relied too heavily on outside contractors and used "incomplete/selective and all too often unreal data," much of which comes from industry news releases

"E.I.A., irrespective of what or how many 'specialty' contractors are hired, is NOT TECHNICALLY COMPETENT to estimate the undiscovered resources of anything made by Mother Nature, period," he wrote.

Energy officials have also quietly criticized <u>in internal e-mails</u> the department's shale gas primer, a source of information for the public, saying it may be "on the rosy side."

The primer is written by the Ground Water Protection Council, a research group that, according to tax records, is partly financed by industry.

The Ground Water Protection Council declined to respond to questions.

Tiffany Edwards, a spokeswoman for the Department of Energy, said that the shale gas primer was never intended as a comprehensive review and that further study was continuing.

Asked about the views expressed in the internal e-mails, Mr. Schaal says his administration has been very explicit in acknowledging the uncertainties surrounding shale gas development.

He said news reports and company presentations were included among a range of information sources used in Energy Information Administration studies. Though the administration depends on contractors with specialized expertise, he added, it conforms with all relevant federal rules.

And while production from shale gas has not slowed down and may not any time soon, he said, a lively debate continues within the administration about shale gas prospects.

Robbie Brown contributed reporting from Atlanta. Kitty Bennett contributed research.

## S.E.C. Shift Leads to Worries of Overestimation of Reserves

By Ian Urbina New York Times June 27, 2011

"Welcome back to Alice in Wonderland," said John E. Olson, an analyst at Houston Energy Partners.



In 2008, the stocks of many natural gas companies were sinking because of the financial meltdown, recession fears and falling gas prices.

But they began to rebound after a sweeping rule change by the Securities and Exchange Commission, intended to modernize how energy companies report their gas reserves.

As part of that change, the commission acquiesced to <u>industry pressure</u> by giving these companies greater latitude in how they estimated reserves in areas that were not yet drilled. The new rules, which were several years in the making, were officially adopted only weeks before the S.E.C. chairman under President George W. Bush, Christopher Cox, stepped down.

Previously, companies were allowed to count gas only from areas close to their active wells as part of their "proved" reserves, the amount of gas that a company estimates to investors it will tap. This was meant to prevent companies from claiming reserves of gas based largely on guesswork.

After the rule change, companies were allowed to include gas located farther from producing wells in their reserves estimates, using modeling methods to predict how much gas could be produced from these yet-untapped areas. But the S.E.C. said that the companies, for reasons of trade secrecy, did not have to disclose precise details about the technology they used to estimate reserve sizes. Though the commission considered requiring third-party audits to verify the reserve estimates, the idea was dropped in the end.

"I am becoming sick and tired about lying," said Walter van de Vijver, senior executive at Royal Dutch/Shell.

The rule change was especially helpful to shale gas companies because it approved the use of new technology and modeling techniques that these companies rely on more heavily than traditional oil and gas companies.

Shale gas producers also especially benefited from the <u>relaxed</u>
<u>restrictions</u> on how large an area companies could predict would be productive without drilling to
test first. Shale formations tend to span much bigger areas than conventional oil and gas fields, and
some shale gas producers say they can achieve relatively predictable results across these large areas.

Among 19 of the largest shale companies reviewed by The New York Times, at least seven increased — some by more than 200 percent — the amount of undeveloped reserves they reported in their federal filings immediately after the rule took effect, according to their S.E.C. filings. Investors cheered the rule change as it was adopted, and in the following months they sharply bid up the stocks of five of the seven companies.

The rule change also allowed these companies to reduce one of the costs that investors often rely on to compare the performance of energy companies: their finding and development costs. These costs now appeared drastically lower because they were being divided across a much larger reserve estimate. Five of the seven shale companies also reported huge decreases in their finding and development costs — by as much as 86 percent, according to a review by The Times of their federal filings. The average decrease in these costs for the oil and gas industry on the whole was about 48 percent for the year.

However, in internal e-mails and documents, many industry executives and federal officials have questioned whether some companies are overstating, perhaps intentionally, the amount of gas they can economically produce in a given period. This practice, known as overbooking, is illegal because it misleads investors trying to assess a company's strength and banks that use reserves as collateral for loans.

"There is now plenty of production data available from the states to show that these wells are nowhere near what these guys are touting," an official with a Texas oil and gas company who formerly worked at Enron wrote on Nov. 7, 2009, comparing the practices of shale companies to Enron's. "I have discussed this numerous times with analysts that are friends of mine — they agree with me and then just shrug their shoulders."

Asked about the rule change, officials at Chesapeake Energy, one of the leading shale gas companies, said its reserve numbers were accurate and comparable to those of other companies.

"We believe that the new modernized S.E.C. rules reasonably reflect the advancements in our industry's ability to predictably produce oil and natural gas resources from unconventional formations," Jim Gipson, a spokesman for Chesapeake, wrote in an e-mail. With advances in technology, he said, "exploration can be more accurately described as a manufacturing process because well outcomes become very predictable, substantially reducing risk."

W. John Lee, a professor at Texas A&M University who worked for the S.E.C. as one of the main architects of the rule change, said the threat of S.E.C. action is also a powerful deterrent. "The S.E.C. is requiring more complete (transparent) disclosure in many cases," Mr. Lee wrote in an email, adding that the risk of overbooking was recognized when the rules were written. Steps were taken to minimize that risk by allowing companies to include only reserves from areas that would under most circumstances be drilled within five years, he added.

John Nester, an S.E.C. spokesman, said the new rules did not require third-party audits because there was a lack of qualified professionals available to do the work and companies themselves could do a better job checking their own reserve estimates.

Some industry experts say they think they are seeing a replay of events from last decade.

In 2004, the oil and gas industry faced one of its most embarrassing scandals. After whistle-blowers reported concerns about the size of Royal Dutch/Shell's reserves, the company surprised investors by slashing reserve estimates. "I am becoming sick and tired about lying," Walter van de Vijver, a senior executive at Royal Dutch/Shell, wrote in a November 2003 e-mail made public shortly after his company's problems came to light. The episode led to the ouster of several of the company's top executives and an investor lawsuit worth more than \$350 million, and helped propel the S.E.C. rule change.

Companies could not apply the new rule until they submitted their 2009 federal filings to the S.E.C. in the early part of 2010. However, companies began describing to investors the coming increases in reserves shortly before the rule change was officially adopted in late 2008.

John E. Olson, an energy market analyst at Houston Energy Partners, says he believes shale companies have been aggressively booking their reserve estimates and playing down costs to make themselves appear more profitable.

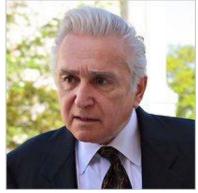
Mr. Olson, who is famous for having been fired from Merrill Lynch in 1998 for refusing to recommend Enron stocks, compared the accounting practices of shale gas companies and the hype surrounding the industry to what he saw at Enron. Of the S.E.C. rule change, Mr. Olson said: "Welcome back to Alice in Wonderland."

## Lawmakers Seek Inquiry of Natural Gas Industry

By Ian Urbina New York Times June 28, 2011

Representative Maurice D. Hinchey wants S.E.C. action.

WASHINGTON — Federal lawmakers called Tuesday on several agencies, including the federal <u>Securities and Exchange</u> <u>Commission</u>, the Energy Information Administration and the <u>Government Accountability Office</u>, to investigate whether the



<u>natural gas</u> industry has provided an accurate picture to investors of the long-term profitability of their wells and the amount of gas these wells can produce.

"Given the rapid growth of the shale gas industry and its growing importance for our country's energy portfolio, I urge the S.E.C. to quickly investigate whether investors have been intentionally misled," wrote Representative Maurice D. Hinchey, Democrat of New York, in one of three letters sent to the commission by four federal lawmakers, all Democrats.

The calls for investigations came amid growing questions about the environmental and financial risks surrounding natural gas drilling and especially a technique known as hydraulic fracturing, or hydrofracking, used to release gas trapped underground in shale formations.

Members of the House Committee on Natural Resources said they hoped to hold a hearing in the next several weeks to discuss natural gas drilling.

Senator Benjamin L. Cardin, Democrat of Maryland, sent a letter to the Government Accountability Office, the investigative arm of Congress, asking it to look into questions about the environmental impacts of hydrofracking, the accuracy of reserves estimates, and industry regulation.

State lawmakers also sought more information.

In Maryland, Delegate Heather R. Mizeur, Democrat of Montgomery County, sent a letter to the state comptroller and the attorney general calling for an investigation into disclosures related to the financial and environmental risks of drilling.

In New York, Assemblywoman Barbara S. Lifton, a Democrat and longtime critic of drilling, sent a letter to the New York State comptroller, Thomas P. DiNapoli, calling for a similar investigation and citing roughly \$1 billion in state pension funds invested in shale gas companies.

The New York attorney general, Eric T. Schneiderman, sent subpoenas to five oil and gas companies ordering them to provide documents relating to the disclosure the companies made to investors about the risks of hydrofracking, according to sources briefed on the investigation.

A spokesman from Mr. Schneiderman's office declined to provide copies of the subpoenas.

The five companies subpoenaed — Talisman, Chesapeake Energy, E. O. G. Resources, Baker Hughes and Anadarko — all declined to comment.

The calls for investigations follow articles in The New York Times describing doubts reflected in internal e-mails from federal regulators and natural gas industry officials about the costs associated with shale gas and the reliability of company reserves estimates.

Oil and gas companies and energy market analysts strongly rejected the views expressed in the industry and federal e-mails published by The Times.

In an open letter to his employees, the chief executive of Chesapeake Energy, Aubrey McClendon, said the company's prospects were bright.

"There is no reason to believe that shale gas wells will have shorter lives than our conventional wells — some 8,000 of which are 30 years old or older," Mr. McClendon wrote.

Some financial services companies also released research notes saying they believed shale gas was now profitable for many companies.

But four federal lawmakers — Mr. Hinchey; Representative Edward J. Markey, Democrat of Massachusetts; and Representatives Carolyn B. Maloney and Jerrold Nadler, both Democrats of New York — sent letters calling for the S.E.C. to reconsider recent rule changes that allow companies to avoid disclosing details about the proprietary technology used to predict future gas production and to avoid some third-party audits of those predictions. They asked the commission whether third-party reserves audits should be made mandatory.

The lawmakers also called for an investigation into industry representatives' accusations of possible illegality or reserves overbooking. A spokesman for the S.E.C. declined to comment.

In a letter to Steven Chu, the secretary of energy, Ms. Maloney and Mr. Nadler asked his department to assess how inaccuracies in production projections could affect energy policy.

The federal Energy Information Administration also faced questions from Mr. Markey and Mr. Hinchey about its reports related to natural gas and its use of industry-tied contractors in writing those reports.

Voicing strong support for the natural gas industry, a bipartisan group of eight federal lawmakers from gas-producing states sent a letter to President Obama on Monday asking him to promote continued natural gas development "by any means necessary, but most specifically, by unconventional shale gas recovery."

"The need for the United States to move toward energy independence becomes more crucial as the crisis in the Middle East and North Africa worsens," the letter said.

## **Documents: Federal Officials Quietly Question Shale Gas**

Over the past six months, The New York Times reviewed thousands of pages of documents related to shale gas, including hundreds of industry e-mails, internal agency documents and reports by analysts. A selection of these documents is included here; names and identifying information have been redacted to protect the confidentiality of sources, many of whom were not authorized by their employers to communicate with The Times.

#### EXPLORE THE DOCUMENTS

#### Federal E-Mails Show Doubts About Shale Gas

- Energy Information Administration Ponders: Will Shale Hype Sink Companies?
- Internal E.I.A. Presentation Shows Many Doubts
- Shale Gas "Euphoria"
- E.I.A. Skepticism on Liquids Claims
- American Petroleum Institute Report Called "Exaggerated and Bogus"

#### **Internal Disagreements**

- E.I.A. Not Technically Competent, Too Reliant on Company News Releases
- Estimates Admittedly High
- An Agency Divided

#### Public Cheerleading Despite Private Doubts

- Watering Down Risks on a Government Web Site
- Science Trumped by Public Relations
- E.I.A. Possibly "Steered Around" Environmental Issues
- E.I.A. Official Says Department of Energy Shale Gas Primer "Rosy"

#### S.E.C. Rule Change

- Former Enron Official Says Shale Gas Is Reminiscent of Enron Hype
- More Risks Under S.E.C. Rule Change
- Proved Reserves "Creep" Upward

### PUBLIC COMMENTS from the June 25, 2011 New York Times article, *Insiders Sound an Alarm Amid a Natural Gas Rush*

#### <u>1</u>.

abby

texas

June 25th, 2011

10:43 pm

Does anyone remember the recent Wall St. debacle of shady mortgages, derivatives, etc.? Does anyone remember Enron?

#### <u>2</u>

Johnny B

Wyoming

June 25th, 2011

10:59 pm

Wow the oil and gas industry plays us for suckers AGAIN. Pollute our ground water, destroy our land, and for what? Promised payouts that they KNOW will never come. Its sickening how they prey on people desperate for some economic hope. Once again the millionaires will make out big while we are left when the bubble bursts. Enron indeed.

#### 3.

Gus

Philadelphia

June 25th, 2011

11:00 pm

From the economic prospectives of natural gas to the ecological effects of fracking, I have no confidence in anything the gas companies tell me. At least after reading this article, I know I'm not the only one. This is a disaster.

#### <u>4</u>.

e

pa

June 25th, 2011

11:03 pm

A timely article on the greed associated with this industry. The shady business practices of Enron and Wall St. are alive and well within the natural gas industry.

#### 5.

Sally

Florida

June 25th, 2011

11:16 pm

Aside from the fact that this technology is being oversold, perhaps even fraudulently so, I'm most concerned about the environmental impact, from depletion of water resources to contamination and pollution to earthquakes. I don't believe for a minute the commercials where gas execs paint nothing but rosy pictures of how natural gas is going to solve every energy problem our country faces. It's all a lie, just like the oil companies and the coal companies and the ethanol companies all lie.

#### <u>6</u>.

Johnny B Wyoming June 25th, 2011

11:16 pm

I believe in responsible use of our resources but this seems wrong. I know people leasing their land to companies that make all kinds of promises. They will be SOL when their lease is sold off to the highest bidder and those promises fall flat. These companies don't think about the people they hurt.

#### 7.

Matt Philadelphia, PA June 25th, 2011 11:23 pm

After the reporting of lax environmental standards a few months back it is extremely concerning that there is still a total lack of oversight in this industry. Yet another problem that has arisen from the pace at which the natural gas rush has taken hold in many parts of the country, and yet again it is primarily the local residents who will have to deal with the ramifications. Hopefully a Congressional investigation will be forthcoming. Also, I really like the supplemental document feature, it would be great to see this used more often. Hats off to the NYT for the fantastic investigative work.

#### 8

HIGHLIGHT (What's this?)

Them or Us New York June 26th, 2011 9:16 am

Excellent article, well documented. It appears the natural gas industry needs to be regulated by both the EPA and the SEC, and that the powers of each of these regulatory bodies need to be strengthened, not diluted.

Our government should be investing in energy production, but not in the recovery of exhaustible fossil fuels. We need to move away from nuclear energy, and we need to stop subsidizing ethanol. Renewable energy is the only viable long-term solution, given the projected increase in population and the limitations of other sources.

The reason government needs to step in is because the free market is not working in this area. The market has become dominated by short term investors, not the old-style Blue Chip investors who were in it for the long run. Switching over to renewable energy will not make a fast buck for most investors, but it meets the real world requirements of our future.

9. Matt H Albuquerque, NM June 26th, 2011

9:18 am

Does this really come as a surprise? When you watch commercials from companies like Exxon Mobil that claim to have harnessed 'technology' to make extraction safe and environmentally friendly, it's clear that the natural gas industry is intentionally trying to deceive the general public into accepting another fossil fuel crutch for our energy demands.

Not particularly shocking considering they want to make money. What's more worrisome is that we accept these efforts, and even encourage them, completely blinded to the fact that the demand created by cheap energy will outstrip the available supply within the next century. The most optimistic projections suggest that we could only meet something like half of the world's energy demand with renewables over the next 50 years. And I think most experts would agree that once we hit peak oil the only way to effectively supply the world with power would be to reduce consumption considerably.

In short, this is indicative of a much larger problem than bad investments.

#### 10. Rdl27c

Connecticut
June 26th, 2011
9:18 am

We all heard the advice from the time we were kids - be a smart consumer. But, in this age of information there seems to be a shift or modification in that advice with the emphasis instead on how to be a smart investor.

There are so many people in North America who are justifiably anxious about the instability in regions of the world that can/have/will further effect our nation's energy supply. Capitalizing on this anxiety, and perhaps convincing themselves as well, are those in the oil industry.

It did seem strange how seemingly overnight North America suddenly was "blessed" with an abundance of oil reserves that would at long last break our dependence on foreign oil; and at the same time minimize the importance of other alternative sources of energy such as solar. It all seemed to good to be true. Well, according to this article, it is to good to be true. Astonishingly, in 2011, we have not learned to effectively and efficiently harness the Sun's energy: 12 hours of sun per day, equates to 438,000 watt-hours per square foot per year. Based on 27,878,400 square feet per square mile, sunlight produces 12.2 trillion watt-hours per square mile per year. Seems to me that if we concentrate our dollars on capturing the Sun's energy instead of extracting oil, ALL our energy concerns will disappear literally with each sunrise. The problem for the oil company is, if we succeed, THEY will disappear.

11. Ike Solem CA
June 26th, 2011
9:18 am

These planned drilling efforts are also the sources of massive levels of environmental pollution, due to the large numbers of wells that must be drilled and the fluids (such as diesel fuel derivatives) that must be pumped into those wells under pressure to fracture the rock and release the trapped gas.

If it turns out that not very much gas will be released per fractured well, all the same, then it will also be an economic loser as well as an environmental loser.

This all sounds somewhat similar to the highly discredit "carbon capture and sequestration" program hyped by the coal and tar sands industries (but curiously ignored by the natural gas industry), in which tailpipe emissions of CO2 are supposed to be captured, piped away, and safely buried in wells drilled into 'porous rock.' Not only is it now apparent that this would cost more energy than can be produced from burning the fossil fuels in the first place, but it's also clear that there isn't enough volume underground to store it. Nevertheless, the DOE (whose #2, Steve Koonin, was previously BP's Chief Scientist) continues to promote this expensive fraud at meeting after meeting.

The real solutions to the U.S. energy problem are solar and wind and photosynthetically produced fuels (which, since they are made using atmospheric CO2 as the carbon source, and water as the hydrogen source, do not lead to global warming when burned - unlike millions-of-years-old fossil fuels). However, corporate energy interests from Saudi Arabia to Canada to Venezuela to Mexico (our top four importers) as well as domestic coal interests (private utilities, railroads, and coal mines) simply don't want to see any competition.

Obama is of course as much a tool of these domestic energy interests, such as Illinois coal barons and investors in Canadian tar sands, as Bush was a tool of Houston oil barons and Saudi oil interests. This can clearly be seen by anyone who bothers to look through the DOE budget over the past few years.

#### 12.

Daniel Colascione Seattle, WA June 26th, 2011 9:18 am

Shale gas is a limited, non-renewable resource. If we allow unrestricted drilling, energy companies will produce as much as gas possible and flood the market. The low price of gas will encourage inefficient energy use and hamper conservation efforts, and when the cheap gas is depleted, the sudden rise in price will be very economically disruptive.

Instead of watching this boom and bust happen, we can cap annual production so that gas remains moderately more expensive, but for a much longer time. This plan would still allow us to use gas for productive purposes, but it would retain incentives to invest in renewable energy and efficient technology, and it would cushion the impact of the eventual depletion of gas reserves. Additionally, limiting total production would limit the total impact of hydraulic fracturing operations, and the relatively high price of gas would reduce incentives to cut corners on safety.

If we're to be prudent and forward-looking, we won't allow energy companies to extract all our gas at once.

#### 13.

Jim S. Oak Park, Illinois June 26th, 2011 9:18 am

We shouldn't be surprised at all by this. The recent onslaught of advertising promoting the gas and oil industry has to been to stoke up investors and keep away any investigations or governmental oversight. This industry does not have at heart the American people's best long term interests. It's all about their profits.

They also try to scare us by talking about the jobs they are saving. Well, maybe for some drillers and industry mangers, but what about the jobs that are lost when the cost of heating fuel or cost of clean water skyrocket? They are a cynical industry.

I went once to a Gas Technology Institute open house. The opening argument in favor of using gas was that it enabled the speaker to turn on the shower and have the water immediately hot and also to be able to throw his shirt into the dryer and have it ready quickly. I was stunned at the vapidness of that reasoning. It was like an ad from the 1950s when gas was being sold as an alternative to heating one's home was a coal furnace.

We need serious thinking about our energy future and to not be taken as dupes or people who can be scared over their jobs. We may be getting fleeced financially today, but more important we're having our future and our children's future stolen.

#### 14.

Andy Russell Tallahassee, Florida June 26th, 2011 9:18 am

This article neglected to mention that imported oil costs six times as much as natural gas for an equivalent amount of energy. Natural gas is competitively priced because we have huge quanities of it. The conversion from oil to natural gas has occured because natural gas burns cleaner and is far less expensive then imported oil. Companies may not like low prices but consumers are reaping the benefit. Fracking is not new. Over one million wells have been drilled using fracking.

What is new is horizontal drilling that occurs over one thousand feet below water tables. Drilling is now even safer than it was befor.

The International Energy Administration recently released it's annual report stating we have entered the Golden Age of Natural Gas. Ending our dependence on OPEC oil is agood thing. How many Americans have to die in order to protect OPEC regimes. We need to speed up the conversion from imported oil to a fuel that is cleaner, more abundant and readily available in our own country. Quit financing terrorists by sending American wealth to OPEC.

In their 2004 exhaustive study the EPA concluded that despite Media hype their was no evidence that fracking had any negative effect on water tables. Current technology draws natural gas at

depths hundreds of feet bellow water tables. That means drilling for natural gas is even safer than it was.

#### 15.

BR

NJ

June 26th, 2011

9:18 am

Being one who believes you can tell that an oil and gas energy executive is lying is to see if his lips are moving, I have a real hard time accepting the contents of this article as fact.

For one thing, Enron was one company. And it operated normally until some or few rogue employees decided it could make more money by becoming something else. The concept of energy companies buying land over shale plays just to flip it, is plain stupid. Not worthy of the NYT.

Here's something to think about though.

Let's imagine that the industry wants a bit of sympathy here.

We are not going to make what we expected.

So what's the logical conclusion? The gas people tell the government you want us to produce gas because is it cleaner than oil and not from Saudi Arabia. So we need more subsidies.

Furthermore, stop regulating us because if you do so, it will cost too much money and we will go away.

Sorry to bury the lede, but I think this is a ploy. These press leaks are planted by the industry to get the US worried that production will stop in an effort to get the EPA and DEPs to ease up on regulations.

#### 16.

Kenneth Ranson Salt Lake City June 26th, 2011 9:18 am

As a Texan and long term investor in the oil and gas industry I have to say that the level of expertise in the Times coverage of oil and gas exploration is well below the quality of reporting I expect from this newspaper.

This article consistently refers to "shale gas" as though this was an homogenous phenomenon. It is not. The amount of productive area, the production profile, and the ultimate recovery, of gas wells are all highly dependent on the formation involved. Comparing the Barnett Shale to the Eagle Ford, for example, is like comparing the economy of South Dakota to that of New York. They are two completely different phenomena related only in their broadest parameters.

With that said that article is certainly right in two of its points. First, taking the experience of the most productive area in a trend and spreading it over the entire trend is almost always false. There are counter examples, but this is usually bad practice. Second, one should be extremely dubious of projections that show an oil or gas well producing for 65 years. Most oil and gas wells will decline to a non-economic level in 20-25 years or less. For wells in shale formations where the bottom pressure is low the decline curve should be higher.

Where the article is incorrect is in the implication that long lateral horizontal drilling, combined with multistage hydrofracing (Fracing does not have a k.), has not opened up a major new energy resource for the United States. It has. Putting aside the two false practices above, and using realistic estimates based on formation specific geologic models, supports this conclusion for those with the knowledge to appreciate the science involved.

### 17. Old Curmudgeon

Akron, OH June 26th, 2011 9:18 am

Natural gas could be an important transitional source of energy, but we have to get our arithmetic right.

In an April op-ed piece in the Wall Street Journal (link below), energy consultant Daniel Yergin wrote: "Estimates of the entire [US] natural-gas resource base, taking shale gas into account, are now as high as 2,500 trillion cubic feet, with a further 500 trillion cubic feet in Canada." The US amount, he asserts, is "a more than 100-year supply."

I've checked his arithmetic, and it's right. A cubic foot is equivalent to 1,027 BTU, so a 2,500 trillion cubic-foot supply is 2,570 quadrillion BTU. With a \*present\* annual consumption rate of 24.49 quadrillion BTU, that would give us 105 years.

But what about \*future\* consumption? The whole point of the natural-gas craze is to run our cars on it and convert our electric power from coal to it, because natural gas pollutes far less and produces fewer greenhouse gases. But our coal consumption this year will be 20.41 quadrillion BTU, and our "liquid fuels" consumption (mostly oil) another 37.41 quadrillion BTU. If we get all that, plus our current consumption, from natural gas, our 105-year supply drops to less than 32 years.

Now if this article is right, and depletion reduces the amount of fracked gas actually available at economic prices by, say, 30%, we've got maybe 20-25 years of natural-gas power if the highest estimates are right and we use up every cubic foot.

That's about enough time to convert to renewables, chiefly wind and solar, plus \*safe\* nuclear power, not the obsolete junk plants whose lives we're perpetually extending now. The alternative is to rely on coal for both electric cars and the rest of our power, i.e., to pollute ourselves to death and cook our planet.

http://online.wsj.com/article/SB1000142405274870371250457623258299008900... http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2011&subject=0-... 18. J Der

Denver

June 26th, 2011

9:18 am

Yes, there have always been vocal skeptics. All of us who closely follow the industry constantly hear this debate about well productivity and how big or small the sweet spot is in a given basin. The NYTimes article is a brilliant grasp of the obvious. The facts are that these wells are very expensive to drill, they result in hydrocarbon production from vast sources that - until 1990 - were out of reach of (then) current technology and well performance is all over the map. The companies that own acreage in the wrong areas, are too weighted to dry gas and/or can't produce the results that investors expect will continue to be valued poorly by the markets and see the cost of their capital rise substantially. Each of these companies is highly scrutinized (individual well results are often publicly available) and their relative performance is widely reported.

Frac fluid content and waste water disposal are and will remain huge issues until the industry moves to environmentally friendly frac fluids and 100% water recycle (closed system) which they will (by necessity) do asap. They are understandably being criticized for this.

There are buyers and sellers on every side of every one of these arguments and they are all, for the most part, highly sophisticated. The largest companies in the world are tasking their best technical people to understand shale gas (and shale oil) and every single one (for the most part) is chosing to invest (rightly or wrongly) in one area of shale or the other. All have strong views about where the most prolific areas are globally, which techniques will produce the best result; together probably 500 different opinions. Nothing about the article will surprise anyone involved in the industry as this phenomenon has existing for 100 years in the industry; long before shale gas came to be. Sadly, the NYTimes chose not to cite anyone with a constructive point of view. You can see why the paper drives people CRAZY; even loyalists like me

<u> 19</u>

Tom Krebsbach Washington June 26th, 2011 9:18 am

Only time will tell how productive shale targeted wells will be. But it is clear that the current price of natural gas makes it almost impossible for E&P companies to turn a profit. The economics depend completely on the price you get for the asset you produce.

In a world that is hungry for energy sources, there is little doubt that eventually the price for natural gas will go up appreciably from where it is today. Even if these wells have a depletion rate that is much faster than predicted, the higher prices for natural gas will make them profitable.

One can expect that next year, if not later this year, the price of natural gas will finally rise to the point where shale wells will become profitable again. A lot of E&P companies are now going after liquids rich deposits or switching to drilling for oil. This is going to cause a shortage of production of natural gas with a resulting rise in its price.

#### 20.

Nick Grealy London June 26th, 2011 9:18 am

There's obviously a lot of material to go through here, but since no one has come to the industry's defence so far, let me do so. I don't see this as the Wiki-Leaks of shale, that's for sure.I've been looking at shale from all angles at <a href="https://www.nohotair.co.uk">www.nohotair.co.uk</a> and shalegasinfo.eu since 2008 and can provide some experience, and an international perspective on shale.

Firstly, as in any science, geology is a broad church. Geologists are famous for having even more opinions than economists, and few non-geologists appreciate the huge amount of variables at play. One thing all geologists admit is that no two shales are alike. The most common, if frustrating, answer I get from geologists in response to almost anything is "That depends". Not an answer shale proponents or detractors alike would find valuable, but an honest one.

Secondly, the changes in shale have been as quicks as they have been big:Much of the Times emails date to 2009, an eon ago in shale. Multiple well heads, environmentally friendly (food based) frack fluids, 100% recycled wastewater etc, have transformed costs and the industry just in the past six months. Similarly, as Pickens pointed out, the transformation in re-fracking also points towards knocking the depletion argument away.

Thirdly, I've asked people about Art Berman for some years. I'm no geologist, but the most common answers I get are "he doesn't get shale", and of course, "That depends": hardly a smoking gun.

Finally, although right wing billionaires like Aubrey McClendon present an easy target for those who are disposed to thinking of shale as environment nightmare/con job, surely not every single oil company in the world, and their investors, are suckers? Let's not forget that this is far bigger than the US: There are at least three Chinese players, two Indian companies, and Norwegian, UK, Polish, French, South African, Australian, Canadian, Argentinian companies investing in shale. Art Berman right and they are all wrong? Unlikely.

#### 21.

Nan Socolow Cayman Islands, British West Indies June 26th, 2011 9:18 am

We don't need another bubble - whether it's natural gas acquired through fracking shale or faux mortgages that have left home-owners homeless, bubbles are not for people. So investors beware - natural gas isn't the golden goose. Natural gas won't cut it any more than oil cut it, any more than whale oil cut it, any more than ethanol is cutting it. We're in the energy quag and the Wall Street Enroners and banksters are back at their greedy biz, this time touting natural gas. We all know what natural gas is, and that's what they're selling to investors who are going to be taken for another ride. Greed is NOT good.

We Americans desperately need a new energy policy from President Obama. Gas prices whether from oil or cows are high. Surely if FDR and his several administrations were able to create atomic energy, nuclear energy in the early 1940s, our excellent President can bring together a Manhattan Project Redux to deal with the energy crisis. Half-baked measures fixing the unfixable aren't the

answer. We all know that truth - notwithstanding the NYTimes investigative report today - except for the natural gas bubble-makers, scam artists all, and the fools who are betting the farm on their promises.

#### 22.

Rich Chicago, Illinois June 26th, 2011 9:18 am

A typical NY Times article on energy, full of innuendo and allegations with very little facts, just a not so subtle message that once again the big, bad oil and gas industry is doing something "evil and underhanded", with the implication that we should forget about this technology and just move to the nirvana of government subsidized, government funded, economically unviable and high cost green energy like wind, solar and biofuels.

Well, of course in a new and emerging technology like fracking, in an industry with all sorts of inherent uncertainties anyways (there are always risks that a field will play out a lot quicker then you anticipate when you drill your first wells) there will be a wide range of opinions. But the overwhelming evidence to date is that this technology can economically increase our domestic gas production in a safe fashion, generate jobs, promote economic growth, and actually provide tax revenue back to the government (as opposed to being a drain on government cash like the "green" technologies).

#### 23.

LR Virginia June 26th, 2011 9:18 am

There is only one way to break the endless cycle of bubbles, Ponzi schemes and financial meltdowns and that is through taxation. Our current tax system rewards and enables the greed and income disparity that has gutted the middle class over the past 30 years by allowing the most affluent to keep every dime they make. If someone pays virtually no tax on an annual income of \$500 million then there is a much greater incentive to earn that much money than there would be at a tax rate of say, 70%. We were a more prosperous nation in 1980, the last year the top marginal tax rate was 70%.

#### 24.

adv Williamsport, PA June 26th, 2011 9:18 am

Once again, congratulations to the Times and Mr. Urbina for excellent reporting on the shale gas industry. We who live atop the Marcellus shale hear daily the gas industry's claims, always in the future tense, of economic benefits to our region. We are supposed to be getting jobs and prosperity, but the carrot is always just ahead of us. In the meantime we have hundreds of heavy trucks rumbling through formerly pristine areas, chemical spills, polluted wells and the occasional gas explosion. Some of us have speculated that the industry may have been doing the same to attract investment dollars: putting forth exaggerated claims of future profitability. If investors start to doubt

the industry's trustworthiness, as well they should, then the whole house of cards may come crashing down--even sooner than anyone expected.

#### 25.

Marko Markoko Kalamo, MI June 26th, 2011 9:18 am

This is another example of the dangers of too much money in the hands of the speculating class. They chase after any type of "investment" that holds even a faint prospect of a return. They do not do due diligence and environmental laws are either trampled or repealed.

If the economy were more balanced and not tilted so much to the "supply side," then these people could invest in real things such as plant and equipment to produce goods that the middle class actually had money to buy.

#### 26.

#### mertens266

frankfort, indiana June 26th, 2011 9:18 am

"Federal and state lawmakers are considering drastically increasing subsidies for the natural gas business in the hope that it will provide low-cost energy for decades to come."

Why is it we always seem to be chasing yesterday's Next Big Thing? America's moon shot, a shining example of successful forward thinking, appears to be nothing more than a historical anomaly in our country's record of government/private industry partnerships. Outside my door I can see 300 windmills on the Indiana prairie horizon providing energy for 65,000 homes. There is more than one way to keep the lights on when skinning a cat.

#### <u>27</u>.

Jeff Arlington, TX June 26th, 2011 9:18 am

For any given resource extraction technique, there is a floor price for the resource being extracted below which continued operation becomes unprofitable. Is that's what happening with shale gas (the price of natural gas has fallen about 2/3rds in the last three years)? I'll let the CEO's of the big drilling companies answer that question. However, if the implication of this article is correct, and amount of shale gas which can be recovered in the Lower 48 is being way overhyped, one would expect the price of natural gas to shoot back up again as soon as the markets realize what's going on. At that point, unless production has fallen off a cliff, unprofitable and marginally profitable wells are going to be looking a whole lot better.

#### <u>28</u>.

#### Jerry

St. Louis June 26th, 2011

9:18 am

I think the hand writing is on the wall. People are going to have to start thinking about the way they live in regards to just how much energy they consume on a daly basis. We need to start thinking about building homes which are more compact and energy efficient instead of the large sprawling houses now being built. The next generation may find that just heating and cooling these energy guzzlers will cost more than putting food on the table.

#### 29.

Joseph-Ohio Parma June 26th, 2011 9:18 am My Opinions:

If the cost of extraction is prohibiting our energy independence it makes sense to correct it. The price should correct itself by 'free market pressure' (ha - ha - ha 'free market pressure').

Better for me to think and write about it in terms of outright government intervention / subsidy.

A BTU (British Thermal Unit) is a measure of pure energy.

It seems to me that the cost of a BTU should be the same no matter where it's origin (nuclear, coal, natural gas, oil, hydrogen, whatever).

The cost of electricity should be more per BTU / Kw because it is always a product of a fuel.

Based on 'TRUE free market' principals, the cost of fuel and/or electricity should not vary depending upon quantity of purchase or use. This is not the way it is however. Large industrial and commercial purchasers / users of electricity (for instance) pay much less per Kw than individual consumers / families because they purchase / consume so much of it.

Considering all of the manipulation going on these days (between bailouts, interest rates, etc., etc., etc.) the manipulation of energy extraction costs should not be an issue - especially when our energy independence is at stake.

Pay the realistic cost to extract and the price will simply rise - just like always.

#### <u>30</u>.

victor cold spring, ny June 26th, 2011 9:18 am

I too am concerned, but it begs the question why would the majors be moving into this sector if it truly is not economically viable. You can't just flip everything. You have to believe in sustained productivity here to make these commitments. Also, an alternate to water has been developed -

gelled LPG or liquefied petroleum gas - which penetrates the shale far better than the water method and without the toxic chemicals utilized in the latter resulting in increased productivity and minimal environmental consequences. The LPG is virtually 100% recoverable to be used again. So - though the article raises appropriate cautionary flags, it fails to thoroughly address certain issues of logic and recent technological developments.

#### <u>31</u>.

#### RHSchumann

Bonn

June 26th, 2011

9:18 am

"Federal and state lawmakers are considering drastically increasing subsidies for the natural gas business in the hope that it will provide low-cost energy for decades to come."

That's what we need: Subsidies to extract natural gas in ways that devastate the environment, poison ground water and run dry in a short time.

And at the same time refuse subsidies to renewable energy sources like wind and solar energy. We are again out of step with the rest of the world. Poor United States. Have we lost our marbles?

#### 32.

Rebecca Durham, USA June 26th, 2011

9:18 am

Shale gas is looking to be a panacea for those who continue to deny that the US needs to seek alternative means of producing energy and more widespread implementation of ways to use energy more efficiently. How incredibly sad for all of us that the amount of "intellectual" (I use that word very loosely) horsepower going into the shale gas business isn't being directed into creating and developing truly long term and sustainable energy sources for this country.

#### 33.

HIGHLIGHT (What's this?)

Evan

Bronx, NY

June 26th, 2011

9:19 am

My wife and I were recently in Wheeling West Virginia, looking for a place to live, as she has recently been hired for a new job in that area. Getting a hotel room, or obtaining a rental apartment has unexpectedly become very difficult because of the very sudden influx of out of state gas well workers that have flooded in to the area. There is a definite gold rush feel to the whole thing. One sees a constant stream of heavy equipment and large tanker trucks with the ominous words "residual waste" on them flowing in and out of the area on the local roads and interstates. Once again, the Onion saw it coming before everyone else, when, just after the economic melt down of "08, one of their headlines read: "Rescission Plagued Nation Demands New Bubble to Invest in". Well, it seems we have received the bubble we demanded.

### 34. UncleSam101

Center Valley, PA June 26th, 2011

9:23 am

Just because there is a bubble does not mean there should be or will be no continuing investment and activity in shale gas production. Housing and the internet had a bit of a bubble, for example. Last I checked, housing and the internet were still around. Since tens of millions of people use natural gas to heat their homes and cook their meals and industry uses NG for both energy and chemical production, natural gas will be produced one way or another. T. Boone Pickens seems to see the situation in a balance manner. All the corporate bashing by many commentators is pointless. Investment bubbles are not a good thing, but they are probably not half as bad as the opposite...underinvestment resulting in the lost opportunit cost. Eventually markets come into balance.

35 RJ

Dallas

June 26th, 2011

9:23 am

One of the more fascinating things about this article is not that some energy companies are overhyping their product - you can almost expect that. But that the "Street" falls for it. It seems to me that they are supposed to do their homework but they don't.

For example, here is one quote from Standard and Poor's current take on Chesapeake Energy Corp:

"CHK expects liquids production during this span to grow over 200%, versus 7% for gas, and increase its liquids mix to 20%-25% of production (10% currently)."

Based on Chesapeake's projections they are listed as a "buy" And yet these "liquid play" projections are suspect according to experts in the field.

The other group that seems to fall for the hype are politicians. Here in Texas, the political class are hailing natural gas as a jobs bonanza. But it isn't and it won't be. And I am afraid that in the next 5-10 years there will be increasing reports about damage to fresh water supplies from pollution related to drilling these wells.

But in the end we shouldn't be surprised by this report. If something sounds to be good to be true, then it likely isn't.

36. vickispuzzle central michigan June 26th, 2011 9:23 am

"The perpetually "powered on" state is largely a function of design and programming choices made by electronics companies and cable and Internet providers, which are related to the way cable networks function in the United States. Fixes exist, but they are not currently being mandated or deployed in the United States, critics say." From adjoining story in today's NYTimes. This seems to

be an easy fix: Very companies make the TVs, distribution boxes, and even fewer companies (cable and sattelite) distribute the content. Why can't Congress, States, and public good companies get rid of some of this ridiculous waste of electricity while we figure out how to continue to generate energy?

#### <u>37</u>.

Frank

Maine

June 26th, 2011

9:23 am

Natural gas would make a good substitute for coal in power plants (from a CO2 standpoint) except fugitive emissions can totally change the greenhouse gas equation. Methane is 23X worse than CO2 which increases the probability that global warming wouldn't get any better due to a coal/gas substitution.

When will we finally realize that the only way to a sustainable energy future is to stop using fossil fuels?

#### 38.

Phil

Rochester, NY

June 26th, 2011

9:23 am

Any company that wants to hydrofrack should at least post a bond to be used in the event of environmental damage caused by their drilling. There are ethically-challenged companies in this business that need to be regulated for the protection of the public.

Also, there is not a shortage of natural gas from more conventional resources. Until we have a greater shortage, the hydrofracking method should be avoided. Clean water will be a more valuable commodity if we continue to contaminate current supply.

#### <u>39</u>.

steve

Ky.

June 26th, 2011

9:23 am

Not having been born yesterday, I seem to recall a lot of similar projections about other new businesses in the years past - plastics, electric vehicles, even whether an atmospheric nuclear explosion would consume all the oxygen in the world's air supply. I can promise you that as long as humans run this, there will be amazing successes and shattering disappointments - just like with everything else.

Especially disappointed will be the environmentalists who agitate for more and more safeguards. Think about this, though: as anti-business and anti-oil as this administration is, even the current EPA head admits that there have been no contamination issues with water in natural gas-"fracked" areas, despite the drum roll of faulty science and propaganda coming from the entertainment industry. Ironically, the EPA charges ahead on its carbon tax mindlessness just in time for the next president to swat it away, apparently realizing there's no reason to crusade over natural gas wells.

#### 40.

Bob Carl Marietta, GA June 26th, 2011 9:23 am

At today's low natural gas prices, I bet that much of the reporting in the article is true. Let the price of natural gas increase to a more normal price (and I don't know what that is) and shale gas will become an important energy source for years to come. Technologies will improve and marginal operators will leave the industry. The hype will disappear and a more balanced approach to exploiting this valuable resource will prevail. Finally, I really doubt that Exxon would spend \$36 billion for shale gas reserves & expertise in it's XTO acquisition last year if this gas play was not soundly grounded in reality.

I thank the Times for a very timely and important article.

#### 41.

KD

Washington, DC June 26th, 2011 9:23 am

Remember the saying trust but verify. Moral here...Don't trust frackers because you clearly can't verify.

Another blockbuster investigation by Urbina and co. reveals words written and spoken between insiders warning of lies, half truths and over inflated hopes.

The fracker sales pitch sounds too good to be true - endless cheap American energy - because, as it turns out, it IS too good to be true...

And there literally is no way to verify. By the time we know the wells will dry up, the cash is sunk into the well. Meanwhile downstream, the gas-fired powerplants are already in the works, banking on burning the 'cheap' gas that clearly won't stay cheap if it doesn't pan out. Take a look at recent General Electric ads selling gas turbines. Shareholders beware. Consumers beware

Meanwhile, Exxon's recent grabs of smaller fracking fish, secures them a larger stake in the fracking-future, putting shareholders at risk. And when a company makes \$10 Billion a quarter profit, there is a whole lot at stake. They want to keep it that way. Watch closely for Exxon and American Petroleum Institute's reaction to this article.

#### 42.

Charles Justice Prince Rupert, BC June 26th, 2011 9:23 am

Considering the perverse government subsidies to this industry, the criminal waste of precious water, the pollution of water tables and the noise pollution from the tens of thousands of wells in use, there is nothing cost effective about the shale gas industry.

In the future we will have to survive with drastically reduced availability of fossil fuels, but we cannot survive without fresh water. What a tragic case of misplaced priorities.

## 43. vickispuzzle central michigan June 26th, 2011

9:23 am

Natural Gas is currently selling at \$4.5 and oil is at (?) best guess \$91 and coal is (s). There is a cost to all. So far, research seems to indicate the environmental cost, human cost, and equipment and wages to extract natural does NOT make it more costly than oil or coal, actually much less. Isn't it the coal industry that is most disrupted by natural gas? Is coal really a better environmental and human impact than natural gas for running power plants for our battery driven cars? or more disruptive than our current use of food to combine with oil to make our ethanol/oil fuel to run our cars? This is not perfection! Natural gas and the water impact seem to be another source of damage to the environment, no more than our current methods and seemingly a lot less. So far the myth of clean coal still is not reviewed nor the President laughed out when it as thrown around on news casts and discussion shows.

#### <u>44</u>.

#### olivier DELON

PARIS FRANCE

June 26th, 2011

9:23 am

This article is very interesting because it indicates that the shale gas production might be not so profitable.

We should remember the gold rush .At the end the only ones who made money were the equipment sellers and the bar's tenants.

As you know,in France,the issue is discussed in the "chambre des deputes".

I am not a specialist, but I spent 40 years in petroleum business on the downstream side.

I am not against this production ,however it is important to be carefull and to improve the methods of exploration/production. one drawback is to slow down the use of renewable energies and the energy saving.

Determining the reserves in normal fields is not easy and for shale gas it seems more difficult . moreover the environmental problems in production should be seriously studied.

#### <u>45</u>.

#### R. Law

Florida

June 26th, 2011

9:23 am

Sounds like Ms. Rogers should be brushing up on the autobiography of Ms. Brooksley Born - thanks to Ms. Rogers.

A well-sourced piece which should warn everyone to do like the City of Fort Worth - all lease bonus and royalty monies go to a fund which will generate interest, and ONLY the interest can be spent - the capital is treated like the Texas Permanent University Fund.

It helps that Fort Worth has a mayor from the industry.

This is what always happens when the income of a country gets concentrated in too few hands, who are looking for deals to satisfy Wall Street and meet up with a notorious boom and bust industry.

It was mentioned that not all shale is as productive as the shale well across the road - this is partly due to the experts doing the fracking; it is not a 'one size fits all 'process.

## <u>46</u>.

Geologist Houston, TX June 26th, 2011 9:23 am

I hope that everyone can remember that it is only a handful of companies that have been ultraaggressive on shale-gas plays. CHK, EOG, SWN, and a handful of others have been in bidding and drilling wars with each other while many responsible producers have sat on the sideline and wondered, even publicly, what these companies were doing and couldn't figure out how their numbers added up.

They were able to sell some of the majors on these plays, but those were companies that had ignored them for so long and had such decline in traditional reserves that they were desperate for something new.

### 47.

norm upstate ny June 26th, 2011 9:23 am

Take an industry whose business model is based on cowboy recklessness and a long history of lies. Combine gee-whiz technology with a corrupt regulatory environment, a bankrupt political system, and ruthless financiers. Stir and stand back.

The real frack job is actually the fracture of our society happening above ground. We are the shale play. Industry insiders use high pressure lobbying to inject slick propaganda into the public consciousness so that cracks open up in our common sense. Once millions of people are duped and sufficiently lubricated with lies, profits can be forced out. It ends when a few CEOs take the money and run, everything goes poof, and we scratch our heads and deal with the enormous mess that flows out of the well.

This is legalized organized crime.

### 48.

Annie M. Philadlephia, PA June 26th, 2011 9:23 am

This is a great article exposing the horrors of the natural gas industry. As someone extremely concerned with natural gas drilling from an environmental standpoint, I'm glad to see that people can no longer fall back on the "economic benefits" argument. It's all a sham and it needs to be stopped.

## <u>49</u>.

LC5

California

June 26th, 2011

9:23 am

"I wouldn't worry about these shale companies," said T. Boone Pickens, the oil and gas industry executive, adding that he believes that if prices rise, shale gas companies will make good money. And therein lies the reason for all this flowery talk of hundreds of years of product under our ground. They want to exploit the prices just like they do the with oil. We will end up paying billions, maybe trillions to them so they can manipulate the supply, processing (refining), and delivery, just like they do with oil. Right now, the industry is not coalesced enough like the oligopolies now running the US oil market. They'll be there soon, and the politicians they line the war chests with will ultimately sell this country down the river once again. Sit down, grab some popcorn, and watch it happen live right in front of you. Should take less than 5 years of lie and propoganda to sell this.

## 50.

### pkbormes

Brookline, MA

June 26th, 2011

9:23 am

Due to the fact of human greed, yes, there's "always a sucker". (One's born every day.)

There is also the issue of huge water shortages, many in the same areas of the country where the fracking goes on, and it doesn't look like there has been much attention paid to potential environmental damage and agricultural losses that gas companies can cause.

## <u>51</u>.

S W Peters

Texas

June 26th, 2011

9:23 am

I've met with numerous shale gas companies offering technology that could help them find their sweet spots. All were keen to learn about it but none would move a well based on it or any other technology... Because of the way they raise their money, if they ever admit that it matters where they drill the gig is over. This is a bubble and the pop is likely not far away.

### President

Apex Spectral Technology, Inc.

### 52.

brandon roddey

paris

June 26th, 2011

9:23 am

France recently outlawed Hydraulic fracturation due to environmental concerns and public opposition to shale gas extraction. I recently read somewhere that Poland supposedly has enough shale gas to provide for domestic European markets for the next 30 years. After reading this article, I wonder if those claims might also be overblown.

## <u>53</u>.

SB

Montreal

June 26th, 2011

9:23 am

My favourite portion of this article is the mention of "not enough profit in shale gas".

## Watch as this story unfolds:

- 1. Government gives the OK to drill everywhere
- 2. Lobbyists already have been lined up in their favourite government, senator, congressperson's office since 5

years ago.

- 3. Tax credits are issued and monies granted by the government for alternative energy forms.
- 4. Price of gas goes up as consumption starts to increase.
- 5. Companies now need to drill in your back yard to find more resources.
- 6. Companies start to drill in unchartered areas such as Alaska, the Dakotas, and anywhere else they can dig.
- 5. Record profits occur.
- 6. Companies start buying companies to have 5 major companies
- 7. Derivatives, short sellers, and speculators find another market to plunder

You can write the rest of this story yourself, since we all know where this one is going.....

## <u>54</u>.

# Joseph Huben

Upstate New York

June 26th, 2011

9:23 am

Are there any corporations that Americans trust? If there chief article of faith is to provide a profit to stock holders, why would they hesitate to lie, cheat, pollute, poison, manufacture defective products? Because government regulates them? They own the government when we can't get them to pay their taxes.

## <u>55</u>.

**Issador** 

Boston, Ma.

June 26th, 2011

9:23 am

If there is anything as solid as gold that you can bet on in the horizontal shale gas play it is that anything Chesapeake Energy tells you, is a lie. How these guys stay in business is a testiment to how crooked business in America has become. Relying on courts that move at a snails pace and high-priced legal teams, Chesapeake Energy has managed to keep their doors open for business while cheating mineral owners, and defrauding local government taxing authorities. If business had a poster child for corrupt, unethical, and dishonesty then, that child would be wearing a Chesapeake "blue-flame" T-shirt.

HIGHLIGHT (What's this?)

hc Florida

June 26th, 2011

9:24 am

My first reaction was that here we have the descendents of the original snake oil salesmen, who rode into a frontier town and sold the "elixir of life" to the naive suckers who bought their wares. When the suckers drank it the day they bought it, and found out it was bunk, they tarred and feathered the con artist, and put him back on the horse he rode into town on.

Daily, I see this guy on a TV ad, a smirk frozen on his face, a guy whose great grandfather was the snake-oil guy. He is telling us that natural gas, easily obtained by wonderful new technologies, can provide us with energy to run our cars, fuel production of electricity, and make life rosy for a HUNDRED years. He doesn't urge investment, but the implications are that if you don't, you'll be left behind.

Now I read (present tense) that already dozens or maybe thousands of suckers have bought into this market, based on lies. And yes, they are losing money invested in the false promises that natural gas is a safe, reliably obtained energy source, and it's everywhere. Implications that this is another Enron scheme are clear to me. Why?

I read an article stating the findings of geologists. The by-products of fracking may well be carcinogenic, poisoning our water tables.

Too bad the internet is misunderstood by so many as the up-to-date premium source of truth. Every single website that announces a FREE guaranteed solution to your financial woes are merely hucksters that lecture us on how you can't go wrong by listening to the spiel that scrolls down to be read while the voice of authority speaks the words you are reading. But the kicker is always an offer for you to BUY their info, not at the usual \$1750 per annum, but at a "ridiculously low" discounted price of one TENTH of that cost. Then, if you do, you are immediately offered a bunch of "secrets" for an additional price per, and you will prosper.

Shouldn't the Internet execs and staffs investigate these people first? Caveat emptor.

## *5*7.

Duncan Los Angeles June 26th, 2011 9:34 am

A million gallons of water for 1 lousy gas well? And 3 million gallons for a "fracking" oil well? What do you want to bet that, when the Texas Aquifer runs dry, the free marketeers of the Lone Star State will howl for some big gubmint help. Rick Perry will form a prayer circle in DC and do a rain dance while reading a tequila label in fractured Spanish. If the Libruls are in power then he won't even have to apologize for talkin' secession on live TV. Yee haw, the stupid never ends.

## **Charles Martin**

Arlington, Va. June 26th, 2011

9:34 am

The oil & gas companies and Wall Street are in the business of assessing risk qnd placing bets on new technologies accordingly. That's their role. Government's job is to protect the environment. This fine piece of investigative reporting underscores why government subsidies should not be used to mitigate corporate risk.

# <u>59</u>.

Tree

Shanghai, China

June 26th, 2011

9:34 am

It too easy to get gas now. It seems a great waste time come again. Yes, the gas is green energy but it still not a renewable resource.

# <u>60</u>.

Ray

MI

June 26th, 2011

9:34 am

Enron Indeed. The water depletion and contamination has me most concerned. The article states over 1 million gallons used but lets be more specific. Three to seven million gallons of water are used every time they frac and they must Re-Frac their wells EVERY 3 to 5 years. If a typical well lasts 30 years; we are talking about contaminating 30 to 70 million gallons of water per well! People need to be made aware and mobilized to limit the catastrophic environmental damage. They are putting carcinogens in the water they use for fracing.

## <u>61</u>.

J.G. Wentworth santa cruz June 26th, 2011

9:34 am

The US government estimates there are 285 Trillion cubic feet of natural gas in the USA. That's a LOT. The whole water pollution thing is mostly baloney. The vast majority of material used to fracture the shale is sand and water. The shale with gas is 5,000+ feet down, the water table is the porous stuff down to 500 feet deep. We should get this stuff and run cars and trucks on it, and we can stop importing oil and sending our money to foreign kings and despots for a few decades.

### 62.

Brodston Gretna, Nebraska June 26th, 2011 9:34 am

If the big oil companies are involved, then you better look both ways before you cross that street. With all the techno logic skills of the world's countries combined, it is distressing to see that we are

still dependent on finite fossil fuels and the unscrupulous regimes (both foreign and domestic) that control them.

### 63.

Mikee

Anderson, CA

June 26th, 2011

9:34 am

Unlikely that the public will ever see the secret company records of this 'fracking' activity. Meanwhile, since everyone is in a rush to celebrate a new source of energy, it is instructive to learn it may cost more to extract than it is worth.

## <u>64</u>.

Bill Randle

The Big A

June 26th, 2011

9:34 am

Last year T Boone Pickens took his down-home charm and Texas twang on a PR crusade across America, effusively promising anyone who would listen that fracking was the best thing that ever happened to our country.

It sounded hollow and suspicious when he made his outrageous and unsubstantiated claims that fracking would save us from our energy crisis, and ever since then the truth has dripped out and make it abundantly clear that T Boone Pickens was more concerned with his own best interests and potential for huge profits than the well being of our nation and our environment.

Overnight Pickens transformed from improbable hero, savior and reassuring soothsayer to snake oil salesman. People like Jon Stewart and The Daily Show gave Pickens a free ride and plenty of invaluable air time to tell a one-sided version of the virtues of unchecked natural gas drilling in the United States, and Pickens played Stewart and the rest of the media for the fools they are.

## 65.

WCGasette

Dallas, TX

June 26th, 2011

9:34 am

They had to convince people that this would work. It's been so easy in our state...where oil and gas have always been The Holy Grail.

## <u>66</u>.

Ted

Golden, Colorado

June 26th, 2011

9:34 am

Art Berman has spoken publicly about his analysis of this issue for over two years. His work is among the most credible stuff available, and publication of these emails supports much of his concerns about the industry.

E. K. Sommer Florida June 26th, 2011 9:34 am

And what about the health hazards to people and livestock? What about the water pollution, air pollution, and the extreme degradation of land caused by hydrofracking? How much does that cost? And the potential, not yet fully investigated by geologists, of undermining the substrate? Lots of hidden costs is this not-so-wise scheme to make money. Better ideas? Consume less; find clean green alternatives to fossil fuel. The age of dinosaur is over.

### 68.

gregwood ny ny June 26th, 2011 9:34 am

I wonder when they will be bundling non-performing leases into worthless investment securities for sale around the world by Golden Sacks?

## 69.

Andy Russell Tallahassee, Florida June 26th, 2011 9:34 am

Exxon is buying American Natural Gas companies. They know that the natural gas boom is just beginning. Automobile and truck manufactures have already begun to run Natural Gas vehicles off of their production lines. Taxi fleets in Los Angeles, Chicago and Las Vegas are switching to NG. Taxi Companies are concluding that natural gas vehicles are cleaner and less expensive to operate than unleaded gas vehicles. Availability of natural gas stations is the only limitation. Companies are installing their own natural gas pumps.

Honda won the environmental car of the year of the year award for its natural gas car. OPEC may not like it. How much will they spend to delay the Golden Age of Natural Gas.

## 70.

## **TXsharon**

Texas

June 26th, 2011

9:34 am

We are creating sacrifice zones in our neighborhoods and rural areas, we are using up and polluting our most precious resource, drinking water and contaminating our best farmland and this is all a scam.

Start subsidizing clean renewable energy NOW and leave the hydrocarbons behind.

Jean-Paul Kowaliski

Scotland

June 26th, 2011

9:34 am

What about the ultrasonic-cavitation induced fusion non-bubble which patents are locked in safes and researchers left in limbo?

# 72. MD

San Diego, CA

June 26th, 2011

9:34 am

Apparently having millions of people lose their homes and their jobs and nearly crash the entire economy wasn't enough in the financial crash ... this time let's try it again, but with an environmental disaster in there too!

### 73.

gdgean

West Hurley, NY

June 26th, 2011

9:34 am

Liberals must not be complicit in this heist. Too often in the last 30-40 years they have been bought and paid for by corportate interests!

#### 74.

Paul

Colorado

June 26th, 2011

9:34 am

What is amazing to me in this article is the fact that Congress is considering subsidizing this effort to make it profitable! This is absurd! Let's subsidize renewable energy industries so that they can become profitable. No, we can't do that. Makes too much sense! Sickens me to no end.

# <u>75</u>.

CRB

Port St Lucie, Florida

June 26th, 2011

9:34 am

If the people quoted in this article turn out to be telling the truth a lot of money will have been spent in vain. But is that really a "public concern"? I find it hard to believe all these companies have deceived their management and stockholders. Why would they do that on purpose? Do you think they all want to be fired? This doesn't smell right. I just can't see the logic in an entire industry that is trying to bankrupt itself on purpose!

-Sailright

Elizabeth New York, NY June 26th, 2011 9:34 am

It IS deja vu all over again. Wall Street is selling these gas-related stocks to pension funds. New York's Comptroller has invested at least a billion in them.

So the only way the investments pan out is through higher prices. Two ways to do this: shackle our infrastructure to it (if Pickens gets his way), and get it to buyers who are willing to pay more. The government just approved Cheniere's application to export liquefied gas. Foreign countries are buying huge stakes in the gas companies. Obama's drilling "task force" is stacked with people tied to the industry. (The head of it is on the board of Cheniere!) So much for our "cheap" energy source that's going to protect us from foreign dependency.

This reeks in so many ways. They are shale "plays" alright.

### 77.

Gardentimes Kansas June 26th, 2011 9:34 am

This is just more of the same from the energy producing crowd. They've been dreaming up new scams for decades. About every ten years a new scam is introduced. Enron should have taught us all that the industry can't be trusted.

# 78. PMJ

Lafayette, LA June 26th, 2011

ExxomMobil spent billions to buy Exco, making it the largest natural gas producer in the country. Do you really think they got fooled on this? Come on, people. One day I will wake up, get my coffee, and read a piece on the energy industry that actually comes close to capturing the reality. That will be a happy day.

## <del>79</del>.

Andy Russell Tallahassee, Florida June 26th, 2011 9:36 am

Prices for natural gas have gone own over the past ten years. That is in stark contrast to the prices of imported oil. New drilling techniques have opened vast fields of natural gas that were once thought to be inaccessible. America is entering the golden age of plentiful natural gas. OPEC will no longer dominate our economic lives.

America's goal should be to make OPEC irrelevant.

Marie R

NY

June 26th, 2011

9:36 am

If the Natural Gas industry could be so unethical in terms of the environmental consequences of their actions, why not the financial/profit aspects too? Maybe we shouldn't trust these folks too much huh?! Great work Ian and co.

## <u>81</u>.

Amazed57 Hatch, New Mexico June 26th, 2011 9:36 am

Aubrey is a stupid and crooked man who leveraged his personal stock and lost it. Then Board of his company gave him more stock so he wants it to go up. He has sold a great deal of his company to the Chinese because they don't understand what he is doing! Everyone in Texas and New Mexico in the oil and gas business laugh at him and his comments! forget it.

## 82.

Stephen Davis Key Largo, FL June 26th, 2011 9:36 am

Why is a private industry getting Federal subsidies in order to conduct business? I thought Texas was Republican? Guess you're only acting Republican when the other guy is getting the tax money.

### 83.

# ekeizer4

Oregon

June 26th, 2011

9:36 am

This is excellent investigative journalism, the sort of thing that the Times is known for. Stories like these are well worth the subscription price. Also, I applaud the paper for posting the original documents; they are revealing, and the annotations are helpful. It is a nice contrast to the Associated Press, which published its recent "exposes" of the nuclear industry without providing the documents to back up the accusations. While the AP stories reeked of sensationalist, "gotcha" journalism, the Times has maintained its integrity and published something of great public service.

## 84.

Blue Deep in the Red States Atlanta June 26th, 2011 9:36 am

Now if the feds were really doing their job perhaps these companies wouldn't get away with these all to common shananigans. This artilce makes a bigger point that the NYT frequently makes: how can the average American be so stupid? Why do they keep electing officials that care only about companies and profits? This is not the government of the people, by the people, and it is certainly not a government for the people.

Thank you for writing this piece and the pieces about the shale works in Pennsylvania...awful what that governor is allowing the gas companies to do.

Our country needs a major wake-up call in a hurry. It's pathetic!

### 85.

# **Thomas Mischler**

Grand Haven, MI June 26th. 2011

9:36 am

Doesn't sound like a good time to cut funding for government regulators.

### 86.

EveT

Connecticut

June 26th, 2011

9:36 am

I've been signing petitions against fracking for over a year now. Maybe with this article we will actually get some effective laws passed to stop the practice. How can anyone in their right mind believe that fracking should be legal?

## 87.

# **David Burlingame**

Fort Worth Texas

June 26th, 2011

9:36 am

Thank you for this very important insight into another aspect of the gas drilling. The arrogance of the gas drilling companies in Texas is hard to describe, as is the culture of retaliation in our city.

When one gas company tried to drill within a few hundred feet of a Fort Worth school (without paying any royalties!) by filing a form over Christmas vacation when all FWISD staff were on vacation, I filed a protest form asking for a hearing. For my efforts I, an elected official, was called "a crazy old fool of a woman" and "an anarchist" by a colleague and pilloried by the local newspaper.

Please continue your comprehensive investigation to provide us with information. It's one of the few sources available.

## 88.

HIGHLIGHT (What's this?)

marianronan

Brooklyn NY

June 26th, 2011

9:36 am

For me, the most sobering part of this article is the thought that in order to eke more gas out of these wells, the energy companies will engage in even more tracking than in the past. Destroy our water supplies for diminishing profits. Gads

# <u>89</u>.

TC DC

June 26th, 2011

9:36 am

What have insiders ever done for America? "Insiders sounding alarm" is an oxymoron. Energy executives, industry lawyers, state geologists and market analysts....whose best interests are at stake?

## <u>90</u>.

## Tom Evslin

Stowe, Vermont June 26th, 2011 10:43 am

There is a contradiction in this analysis. Sugared down, as we say in Vermont, you are saying:

- 1. the wells aren't profitable because they are yielding less than expected;
- 2. the wells aren't profitable because natural gas prices are too low.

Since natural gas is selling for about half of what oil sells for on an energy yield basis, if there is less of it than the market thinks there is, the price will rise until drilling is profitable. If the yield from the Marcellus formation - which is above estimates - is more indicative, prices will stay low and competent producers will profit from volume. All of this assuming that government avoids the temptation to muck up the economics with "incentives".

## 91.

vulcanalex Tennessee June 26th, 2011 10:52 am

Lots of good facts and opinions on both sides. I just want to remind everyone that the government does not make investments, and should not pick winners or losers. What they should do is provide a level playing field, police the folks for correct conduct and perhaps sponsor some research and development. The fix for unethical conduct is jail, not fines, taxes etc.

Time will tell about shale gas (over 20 years is foolish) and of course there will be tar sands etc to be developed to meet our liquid fuel needs. Alternative energy is needed, but going too fast can be quite expensive, too slow also has its dangers, just right is something that the market is best able to decide without outside support.

## <u>92</u>.

Mike knapp Western PA June 26th, 2011 10:52 am

Do people not that the natural gas industry sets its own commodity price? Price is determined by supply and demand. One half of that equation is completely in the control of the industry. If they were losing money hand over fist as implied by this article, all they would have to do is produce

less and the price would rise. The problem is that right now companies are drilling to hold leases they got back in 08-09. The biggest oil companies on the planet are buying up natural gas assets hand over fist. Do you really think that piddly little domestic gas firms are pulling the wool over the eyes of multi-national oil companies like Exxon, Shell, Chevron? As if those companies have no experience drilling holes in the ground to extract hydrocarbons?

Also, in a day in age when energy prices in every other sector are skyrocketing, are we REALLY going to complain that natural gas prices are too low?

### 93.

Alan Gregory Williston, VT June 26th, 2011 10:52 am

Reporting on the shale gas drilling business continues to ignore or fluff over a chief environmental issue: the destruction, degradation and fragmentation of wildlife habitat. This is of particular concern in Marcellus hale states, like Pennsylvania, where forest-interior wildlife species like the Wood Thrush are already in trouble population wise because of these same habitat issues. I dare say it is now impossible to get more than a mile or so from the nearest road anywhere in Pa., whre I lived for 20 years until very recently.

## <u>94</u>.

Andy Russell Tallahassee, Florida June 26th, 2011 10:52 am

Cities throughout the country are moving to natural gas vehicles. Besides the fact that they are less expensive to operate. The main advantage of course is switching one Garbage truck to natural gas from diesel is equivalent of taking more than ten cars off the road. That is how clean natural gas can replace OPEC oil. The conversion is occurring nation wide and is making our environment much cleaner. FAUX OPEC greens continue to rant that imported oil is cleaner burning then natural gas. The truth of course is the exact opposite. Serious environmentalist know the game oil importers are playing. Honda's NG car won the environmental car of the year award. Switching from imported oil to natural gas would go a long way towards cleaning up the environment. Natural gas will be the bridge fuel that will allow us the time to develop practical and affordable electric vehicles. This is particularly important when it comes to powering heavy duty transportation fleets. Let's make OPEC irrelevant.

# <u>95</u>.

**David Burlingame** 

Fort Worth Texas June 26th, 2011 10:52 am

There are numerous anecdotal reports of the environmental damage that this industry causes. We are exhorted by Fort Worth Water Department to conserve water, yet each fracking essentially removes 1 million gallons of water from our system. Now there is evidence of exaggerated deposits to encourage funding by Wall Street. There is an excellent series provided by the Denton Record Chronicle titled "Citizens of the Shale"

that provides excellent analysis of the environmental damage and dangers. http://www.dentonrc.com/sharedcontent/dws/drc/specialprojects/drilling/s...

# <u>96</u>.

KC

Okla

June 26th, 2011

10:52 am

Never trust a publicly traded, virtually unregulated company whose chief executive officers hold massive shares of their own stock.

Their expressed public opinions just might be biased and not completely factual.

You Think? Really?

Once again this will become the source of several interesting books and lots of investors money up in smoke.

But it's party down here in the midwest, at least till the music stops!

### 97.

gary litchfield

rockville md

June 26th, 2011

10:52 am

notice this in the report: "... Federal and state lawmakers are considering drastically increasing subsidies for the natural gas business..."

Couple that with the fact that it's the gas industry people and their consultants ("free market capitalists" all) who are so anxious to circulate the reports about gas not being profitable.

I suspect these doomsday emails, etc, are an orchestrated endeavor by gas companies to get on the public subsidy dole...again.

## <u>98</u>.

opinionatedus illegitimitatus

New Jersey

June 26th, 2011

10:52 am

Bubble, shmubble, toil and trouble, who cares about the bubble, long as only the investors get hit? No more bailouts for anyone, banks, industries, the government. None are too big to fail provided the investors have to eat it.

And, of course, it's a giant Ponzi scheme--isn't 90% of the stock market based on finding a bigger sucker. In the final analysis, it's up to each individual to determine the wisdom of his investments, not a huckster CEO, financial adviser, or next-door neighbor.

## 99.

MikeLT

Boston

June 26th, 2011

10:52 am

If, as the gas companies say, this is the answer to our energy problems, why are we considering giving them subsidies?

Nofreelunch middle USA June 26th, 2011 10:52 am

Here's a simple economic thought. The return on a natural gas well is how much you get out (which this article is about) times the price you sell it for. Right now natural gas is 2-3 time cheaper than oil on a BTU basis (and emits 50% less CO2 when burned). If there is too much hype, and these wells play out much earlier than thought, the the natural gas glut that is causing the low prices will go away, and the price of natural gas will rise from \$4/MMBTU to \$10MMBTU, which is the average current price outside the US. IThe producers would then see less production, but it will be sold at a higher price, offsetting the loss.

### 101.

Abby Tucson June 26th, 2011 10:52 am

Does anyone recall the commodity bubble of the 70s? Right after the real estate bubble blew, copper rose to seven times its base value. Lots of companies leased mineral rights, but few moved on them. They just rode out the next few years with a papered profit on their holdings and then it finally collapsed. Oddly, NG prices have stayed flat since they dropped by half over two years ago. Curious pricing behavior. What's up with that?

Also, has anyone determined if fracking is ONLY pressure cracking shale for gas, or are those chemicals essential to the release of gas? Texas has asked the inductry to reveal their secret recipies.

#### 102.

TJ-S Montana June 26th, 2011 10:52 am

This article neglects to mention that there are more places in the United States that and drilling than just the southern states. What about Wyoming, Montana, and North Dakota. The Bakkin oil field is one of the largest in the world - is this a lie too? Our cities and towns are being taken over by this and we do not have the infrastructure to support the boom that they say will not end in our lifetime... is this a lie too and we should sit back and wait for it to end? or are we truely in trouble? I absolutely hate to go to town now, everything is dirty - garbage strewn about, mud caking the floors of businesses; Walmart is full of unpacked boxes sitting in the aisles, very little is on the shelf, there are only two or three checkers and the lines there are about 45 minutes to an hour; and the truck traffic cloggs the few routes through town - not just one town but EVERY town! A person must plan at least 30 minutes or more just to run into McD's for a soda. Just wanted to mention the other side of things.

## <u>103</u>.

T

Tx

June 26th, 2011

10:52 am

Federal and State regulatory authorities need to take close look at this issue.

Recommended by 1 Reader

### 104.

Ben Hur

Pittsburgh

June 26th, 2011

10:52 am

This is the best news I have heard in a long time. I just hope this bursts before they get to do too much more damage. And that the prices of geothermal, solar thermal and pv keep falling quickly.

#### 105.

James Tracey

Virginia

June 26th, 2011

11:25 am

Sounds dubious in the same way Saudi Arabia and other OPEC members overstate oil reserves.

### 106.

# norcalguy101

Arcata, CA

June 26th, 2011

11:25 am

How can anyone seriously concern themselves with the "ground water" impacted (pun) by fracking?

Do you believe municipal water sources can economically retrieve "ground water" from the depths petroleum production wells reach?

Seriously folks, the only fear you have is fear its self.

Fracking has been going on since the turn of the 19th century.

The alarm over fracking is a red herring.

## 107.

Thomas

Texas

June 26th, 2011

11:26 am

OMG. The document reader says it all!!!! Lies, lies and more lies. Wish I could say that I am surprised. Thank you NYT for finally getting to the truth when no other media would look in depth at this scam.

## <u>108</u>.

Arrow

Chicago

June 26th. 2011

11:26 am

You mean I shouldn't completely trust a billionaire with the name T. Boone Pickens?

### 109.

truth

Woodbridge NJ

June 26th, 2011

11:26 am

Toto I don't think we're in Kansas any more.

### 110.

Beth H

Seattle

June 26th, 2011

11:26 am

See the movie Gasland. You'll never trust the natural gas industry afterward.

### 111.

## **Patrick**

Long Island NY

June 26th, 2011

11:26 am

Thanks for all the work that went into this article. We still need to conserve energy every chance we get and in every structure. Learn to conserve. http://www.energysavers.gov for starting.

### 112.

mushrumps

stamford, ct.

June 26th, 2011

11:26 am

Why, then, are natural gas prices creeping along the bottom?

### 113.

## O'Bummer's Hummer

Longmont, CO

June 26th, 2011

11:26 am

I hope all these companies that are raping the environment will get sued over the pollution of groundwater and irresponsible fracking. Of course, our regulators are all paid off to look the other way. I love this so called 'democracy'. We have the best system that money can buy. The only question is if they are going to get bailed out by our useless president.

Ellen

Illinois

June 26th, 2011

11:26 am

Watch GASLAND for more information about the environmental consequences of fracking.

### 115.

## <u>encendere</u>

Los Angeles, CA June 26th, 2011

11:27 am

None of this information is new. Basically, fracking is unprofitable at \$4, but is profitable at \$6. But \$6 translates into  $6 \times 6 = 36$  per oil equivalent barrel. MUCH cheaper than the \$90 barrel we see now. It may mean that natural gas is not used quite as much for electricity production, but rather as a vehicle fuel replacement.

### 116.

Cordelia28 Astoria, OR June 26th, 2011

11:28 am

"They want to bend light to hide the truth." Hiding the truth seems to be standard procedure for the fossil fuel companies. People in WA and OR confronting reckless proposals to build LNG terminals in earthquake/tsunami zones and a coal export facility along the Columbia River have experienced lies and more lies from the companies involved since 2004 - documented lies in public hearings, in company materials and on their websites, in court procedings, interviews, etc. One LNG company went bankrupt in 2010, owing my Oregon county and local businesses \$200K; another LNG company already owes the county more than \$60K from 2010.

What these speculators learned from Enron is to do whatever it takes and whatever you can get away with. Deny everything if you're caught, and always, always hide the truth and the money.

#### 117.

## SteveBrant

Los Angeles, CA June 26th, 2011

11:28 am

This scandal is just further proof that humanity's age-old habit of looking to satisfy our energy needs by digging into Mother Earth is an idea whose time has passed.

Instead of looking down, humanity should be looking UP... at the Sun and all the free sources of energy available above ground (like the wind) and at sea level (tidal energy).

The companies whose business model rests of controlling the source of energy should stop resisting the march of energy supply history. There's plenty of money to be made from supplying energy in ways that don't poison and rape Mother Earth.

June 26th, 2011

11:29 am

This comment has been removed. Comments are moderated and generally will be posted if they are on-topic and not abusive. For more information, please see our <u>Comments FAQ</u>.

### 119.

dbsweden

Sweden

June 26th, 2011

11:29 am

Welcome to the Ponzi World of American capitalism. Meanwhile, down on the farm, Pappa, Mamma, the kids and their animals are being poisoned by the toxins in their drinking water, deadly toxins from the "fracking" used used by the energy giants touting a secure energy future for America.

And you get one guess who are making out like bandits on this scheme. The guys in the luxurious corner offices will be sipping their Perrier bottled water while ordinary folks are having to drink water from their polluted underground aquifer. It's already too late in some areas, but there's still time in others. Wise up, America.

### 120.

Sere

**NYC** 

June 26th, 2011

11:29 am

Well, now you know \*officially\* that the left and the greens are \*terrified\* of natgas.

As Flaubert said in a hardly different context: What a surprise!

## <u>121</u>.

DC

Gainesville, FL

June 26th, 2011

11:29 am

What is the point of this article exactly? It looks like the problem is that there is so much gas that prices are too low right now and only some wells are highly profitable. Is that the conspiracy?

#### 122.

mzigma

uae

June 26th, 2011

11:30 am

there are creeks in pennsylvania i would not let my 10 yr old go near now.this is a huge problem where only a few are making money and the rest will have to pay for rents go up, tax base goes up, but for how long?oh yea that is call a bubble, and the popping sound is not too far behind.clean energy natural gas almost sounds as bad as clean coal.thank you NYT for your investigative work on these gas wells, it shines the light on a huge problem.

### Gene Man 66

Brandon, Vermont June 26th, 2011

11:30 am

Once again the warping of profit because of government subsidies and political interference in private commerce may drag investors into a Ponzi scheme that sucks the life out of the US economy. If the industry can stand on it's own without government incentives, and health and safety regulations, let it grow.

Government incentives in energy, or really any private commerce, are ill advised. Look at electric cars. They are being built in part with our tax dollars to be economically viable, and local governments are now building charging stations to make it possible to even use them. Do we really want to be spending more of our tax dollars to boost the bottom line of GM? Not to mention the absurdity of calling electric cars "green" when the power used to charge them comes from coal-fired or nuclear power plants.

## 124.

B.E.

Near Atlanta

June 26th, 2011

11:30 am

Federal Subsidies for the gas men? WHY?

If there is any tax money that we can spend to do some REAL good, let's have another 60s style 'race to the moon' program to get clean coal and liquid petroleum for coal for our cars and trucks.

I have a horrible feeling about the fracking process and our ground water. If we let the gas men kill that, and have 'flammable' water like they do in Arkansas, we done for!

#### 125.

HIGHLIGHT (What's this?)

ioe

NY

June 26th, 2011

11:30 am

Fracking has to be stopped dead in its tracks. NOW! Forever. It destroys the environment, injecting thousands and thousands of toxic chemicals under ground. It releases gas into the water table, ruining aquifers forever, endangering a precious, essential and dwindling natural resource-fresh, drinkable water. Any politician who votes to allow fracking instantly becomes public enemy number 1.

### 126.

hezekiah

Oklahoma City

June 26th, 2011

11:30 am

Keep your fracking hands off of Dallas (TX) County! Drill my land in Limestone County! Now the readers know the self interest of us oil magnates.

Mike

Austin

June 26th, 2011

11:30 am

There's a big part of this story that is simply missing. An exploration of why the price of natural gas is so low, and why it is historically cheap (in BTU terms) versus oil. The current ratio of \$4 gas/\$90 oil makes gas an energy bargain that's unlike anything seen in many years.

The natural gas industry is to some extent, a victim of it's own success. So many companies have brought on production in the shale plays that the market is over-supplied. Of course the economics of most wells are lousy, but it's nothing that wouldn't be solved with \$8 gas. And gas at that level would still be very cheap on a BTU basis versus oil. You'd have to go to \$15 gas to get parity.

This is not a story about deceit. It's more about structural impediments to using a hydrocarbon which is cheaper, cleaner and more abundant than oil. If gas was being priced at even half it's BTU-equivalent value, the wells would be profitable. The story should be about why we are spending so much on imported oil, when we could be using this fuel instead.

## 128.

**GMS** 

New York, NY

June 26th, 2011

11:30 am

This article is, as Edmund Wilson said about "This Side of Paradise," "a gesture of indefinite revolt." It commits various sins of omission, is poorly and sloppily reasoned, and provides little useful context. While I'm sure over the next few days, the article will become notorious, and 2,000 characters is not enough space to list all its failings, here is an overture:

- 1. There were considerable "shale skeptics" in the industry in 2008-2009 as the shale plays were becoming understood. The suprising, and technologically stunning results from shale wells over the last two years has silenced all but the fringe of the critics. Notice most of the "insider documents" and quotes are from 2009. I'm certain that these people will come forward to admit how new data has proved old ideas wrong.
- 2. The fact that certain shale wells are less productive and econoimc than others at today's prices is not a scandal. It's a function of basic economics given the oversupply of natural gas following the huge surplus of gas from shale wells recently. There is gas in less productive reservoirs. Gas prices may have to rise to \$6 per MMBTU from \$4 per MMBTU to make them economic. Gas prices peaked at over \$12 per MMBTU.
- 3. The fact that the article did not put any sense of scale on gas prices changes, while hinting darkly of higher electricity costs, testifies to its lack of real understanding. Six years ago, everyone in the country presumed we were running out of gas and predicted prices marching upwards. Consumers are now benefiting from previously unimaginable low gas prices, but even if prices rise some from here, the opening of the shales has been one of the bright spots in our economy--and environmental progress: gas is now able to displace coal and potentially oil, reducing GHG emmissions; the U.S. is now potentially able to export energy, instead of importing it, helping create jobs, reduce trade imbalances, and show American technological leadership at its best.

Steve Steinhoff Madison, WI June 26th, 2011

11:30 am

Behind this story is the reality that we are in a period of declining returns on fossil fuel extraction: the ratio of energy recovered to energy required for extraction is dropping as we have to look for more exotic sources. Hydrofracking is one example. Deep sea drilling, arctic drilling and oil shale are others. I suspect that the willingness for investors to buy into rosy projections described in the story is related to the difficulty we have in coming to terms with the broader implications that there is likely no replacement for the cheap energy that we have been mining for centuries. We really want to believe that some discovery will come along. After all, this has been the case in the past (the green revolution). Hydrofracking seemed to buy us some more decades. Now this technology and source, too, is thrown in doubt. What I find particularly disturbing is that the federal government is considering large subsidies for this practice. This is a really bad idea.

### 130.

Larry L Dallas, TX June 26th, 2011 11:30 am

This is another example of the inevitable result of globalism: the people dealing with the consequences are local but the people who control the money, decisions and policies are hundreds or even thousands of miles away.

The current model for the global economy is toast. This is just another brick in the wall.

#### 131.

Tinker Twine Woodstock, NY June 26th, 2011 11:30 am

Fracking is another indication of the failure of capitalism when it falls into capitalists' hands; failure to act with any concern for the public. A self-devouring greed results in the long, slow death of humanity.

## 132.

patchapoon Mont St Hilaire, Quebec June 26th, 2011 11:30 am

Thank you so much Ian Urbina and Robbie Brown and the New York Times! This sounds much more like the journalism America used to be known for.

## <u>33</u>.

Italian Special NY June 26th, 2011 11:31 am

I don't care how profitable or not the gas wells are. I care about my kids' drinking water not being full of carcinogens and radioactive isotopes. How did that suddenly not become important?

I hope the U.S. Senate wakes up and re-enlivens the Clean Water Act to apply to the gas companies.

Greed is just a terrible thing. Yes, people have a right to profit. But people's right to clean water and air trumps all.

Thank you for this great investigative piece. And they say investigative journalism is on the wane? Well, the NYT's coverage of hydro-fracking bucks that trend.

#### 134.

TnTeacher Lebanon, Tn. June 26th, 2011 11:31 am

I am surprised no one has mentioned the documentary "GASLAND". For all the geological speculations about what happens when they cause a Fracking (or fracing) earthquake, that they can somehow predict where the gas is going to come out is Nonsense. That is why, where they have these gas fields in prodution, they have streams bubbling with methane and water faucets that shoot flames, farmers and ranchers who can't use their groundwater anymore. The gas industry leaders sit in front of congress like the tobacco baron of old, "What problems?" It may be less expensive than oil if you don't count the cost to peoples health and the environment, which I am sure these energy companies don't do when they do their calculus and present this to communities where they lease or investors they are trying to sell to. We should look this gift horse in the mouth.

The deeper problem is the norm that has developed with the globalization of responsibility: businessmen (business schools?) don't seem to inhabit, or feel responsible to, the communities they are trying to exploit. Ethical behavior has really disappeared and everywhere, business models seems be driven by addict like behavior:

I'll say anything, I'll do anything, to make my deal, to get my fix, regardless of the consequences or the devastation I cause. This runs from the hall of congress to every business I deal with. They all seemed to be licensed in Nevada, shipping from China, with a call center in India, and corporate offices in the Bahamas. If you can't find them how do you hold them accountable?

### 135.

Don B Massachusetts June 26th, 2011 11:31 am

Yes, speculators will get burned, as usual.

Current gas prices are below coal as a source of energy. This makes no sense considering that gas burns cleanly, generates more H2O than CO2 and is portable enough to be used in trucks and cars. Compare gas with ethanol which requires mandates and massive subsidies. Ethanol from corn will

never be economically or environmentally viable.

We are also going to need Nuclear power for electricity unless some really dramatic improvements are made in "renewable energy", but we shouldn't gamble our future on that either.

### 136.

Idlewild Queens, NY June 26th, 2011

11:31 am

Finally, finally, the media are addressing the risks of this insidious technology. Introducing carcinogenic chemicals into the water table in order to raise natural gas is another word for insanity. Decimating large swaths of countryside in order to install wells is another word for obscene. Leaving the toxic wastewater sitting in large, open pools is another word for folly. Hoodwinking the people of the US with rhetoric about clean energy is another word for greed.

# <u>37</u>.

Andy Russell Tallahassee, Florida June 26th, 2011 11:31 am

Perhaps the main reason natural gas is far less expensive than foreign oil is that their are hundreds of companies producing CNG as opposed to only a few oil refiners. The CNG industry is extremely competitive.

Low prices for consumers is a good thing. Inefficient drillers will be replaced by increasing numbers of highly efficient drillers. Natural gas is far cheaper and cleaner than imported oil.

## 138.

Torrance

SoCal

June 26th, 2011

11:31 am

Whose being scammed- investors(always beware)? The land owners don't have to lease their land. Maybe they're just "greedy" like the gas companies and everyone else for that matter. If gas wells are not economical then energy companies will quit drilling them or they will drill them and go out of business. End of story.

### 139.

Cowboy Marine Colorado Trails June 26th, 2011

11:31 am

So what else is new? American energy company leaders and their Wall and K Street cronies and friends in Congress are liars and cheats trying to con the public, taxpayers, and government out of as much money as possible.

SqueakyRat

Providence RI

June 26th, 2011

11:31 am

Fascinating investigative journalism. Congratulations. This is a topic of the highest importance.

### 141.

Elizabeth

USA

June 26th, 2011

11:31 am

Document feature: good idea.

## 142.

George

Ohio

June 26th, 2011

11:31 am

Congratulation to the crack New York Times reporting staff for discovering that geologist disagree with each other regarding the production potential of some material that is underground and we cannot see.

Matt, you call this fantastic investigative work. What a joke. There is little substantive fact in this article, nor consideration given to companies that support the industry but are not directly involved in production or exploration of natureal resources.

This reporting does not reflect the long admired fact finding of the New York Times. If the readership does not demand, and support, the highest quality of journalism, the Times will become a pawn, no longer a king.

#### 143.

# <u>Avery</u>

New York

June 26th, 2011

11:31 am

I cringe every time I see and hear the MSNBC Ad by Exxon. Enron could not have made a better case for Natural Gas locked beneath the ground!

### 144.

brudy

Cambridge, Ma.

June 26th, 2011

11:32 am

Fracking is an environmental catastrophe, and now the NYT shows it only lines the pockets of gas industry. Fracking needs to be regulated (France just outlawed this practice). People should see the documentary Gasland to see the effects: http://www.gaslandthemovie.com/

145.
Ellen
Williamsburg
June 26th, 2011
11:32 am

Thank you for this report.

The steady hammering from concerned citizens and the documentary Gasland, has resulted in the long-awaited release of the list of chemicals recklessly being pumped into our shared ground. The images of flaming tap water give undo the lie that water supplies are not damaged by the process, and since water is necessary for survival, keeping the water safe should be our number one priority.

Add to this background, the information your article provides, namely that, even knowing there is cause for alarm, and that returns are likely not what has been advertised, they continue, because a profit can be made, a paper can be sold...and where have we heard that before?

We are stuck with the rubble from the housing market collapse, we are paying still for the banking debacle, but we do have time to stem this cancer from developing in our midst.

Extreme weather from around the world, and especially in our own backyards, coupled with a process that would ruin our water to profit a very few people at the expense of our nation's health and environment, is all the evidence we need that things cannot continue the way they are now. Folks, we have hit the wall.

The truth is - it is well overtime to stop fooling around with stop-gap measures to squeeze every last drop of fossil fuel from the earth, but to proceed with diligence and focus to develop the sustainable energy sources we need if we are to have a future.

Simply because it is right, and simply because future generations deserve better than what we are leaving them, that's why.

#### 146.

ada

wellsboro, pa

June 26th, 2011

11:37 am

Wake up, NY! Wake up, world! Pennsylvania's Marcellus Shale play will go down in history not as a scam but as a scam AND a set of massive human rights violations. Look here to see first-hand (and scientific, and unhyped) account of what this does to families: <a href="http://youtu.be/LtZV8idw\_bg">http://youtu.be/LtZV8idw\_bg</a>

### 147.

Shoebox111

New York city

June 26th, 2011

11:38 am

Playing the race card again ny times? Worked so well for you in that lacrosse case. Picture of black folk getting fleeced by white energy executives? How about a picture of the thousands of citizens who became wealthy due to shale drilling, or the low unemployment rates in n Dakota, certain parishes in Louisiana, s Texas. As for wells dying off quicker than expected, don't they come on

higher than expected? Number of wells being drilled in Barnett and Fayetteville plummeted last few years yet production at record and keeps rising. Like any activist, you fear talking to anyone who disagrees with you. I don't think this commented will be posted. But I know the truth

## <u>148</u>.

## Julian Fernandez

Dallas, Texas June 26th, 2011

11:38 am

So, just as the "naysayers" predicted, estimates of a "Saudi Arabia" of natural gas reserves are being greatly exaggerated by the industry to lure investment. And just as critics have claimed, re-fracking each non-productive well at a cost of millions of gallons of fresh water per well will be SOP.

I live in Dallas and am involved with groups trying to stop industry and government plans for wholesale drilling within the city limits. If you are a resident of New York, Pennsylvania or Delaware reading this article, you have a lot more at stake than I do. Your freshwater, what you drink unfiltered from your tap, is being destroyed for a few years of "clean, cheap Natural Gas". What are you going to drink in seven-to-ten years when the gas is gone the aquifer supplying your drinking water is permanently contaminated?

### 149.

Ringo

Wisco

June 26th, 2011

11:39 am

So the answer to providing cheap energy abundance is to give subsidies to LLC's that are ultimately running a Ponzi scheme, irreparably contaminating someone else's ground water, and they walk away with a pile of money and an ultra-low tax rate? Brought to you by that old war horse, Dick Cheney and the party of disdain, disregard, and profit by destruction.

I would like to see NYTimes do a poll in the people running the companies in the resource-extraction industries... my hunch is that the vast majority of the Americans are white, middle aged-to-older males, and GOP right down the line. And their answer would be what? A thick-necked shoulder shrug? Electing Michelle Bachmann? Bombing Iran? All of the above?

### 150.

Arturo

NYC

June 26th, 2011

11:39 am

Citizens in Fort Worth must suffer from dementia if they are allowing shale gas companies to extract gas on their land. What's most troubling to me is not the fact that the economic benefits that these companies promise never come through, but instead the negative impact that this can potentially have on our environment and economy.

According to the article, 100 million gallons of water is required to extract natural gas from these wells. That's 100 million gallons of toxic water PER WELL that must then be disposed of. Wasn't the BP oil disaster and the toxic waste released from the damaged Japanese reactors enough? What kind of planet are we leaving for the future?

This article also raises another interesting point. If this bullish attitude turns out to be a total bust (which it is) it will have drastic effects on the global economy resulting from higher consumer prices in energy. This is something that must be avoided.

These shale gas companies are predators and need to be treated as such. They promise what every other corrupt political and industrial entity promises such as better schools, better roads, and a secure future. Their actions always end up doing the complete opposite.

#### WE NEED A CONGRESSIONAL INVESTIGATION NOW.

### 151.

Stacky 12

Mexico

June 26th, 2011

11:39 am

Not to mention the ecological problem of shale gas, how can so many people be so stupid? And how criminal can the gas companies be? With our president's arms around Wall Street as much as the Republicans are, is there anyone to trust? All questions, no solutions. The country is going to hell in a hand basket.

## 152.

Guy St.Clair Alberta, Canada June 26th, 2011

11:40 am

The article is misleading. The facts are there as the resource is. The issue is that we require more regulation and higher energy prices immediately derived from a much higher environmental standard and resource stewardship. It's an economy of scale business and evidence of the folly can be deduced by too many minor players- only possible via lack of regulation. Oil and gas prices are too low and only so because of negligible regulation.

### 153.

Ray

MI

June 26th, 2011

11:40 am

Ooops..., here's arevision to my worse case scenario math, ...

At 3 million gallons per FRac and fracing every 3 years the industry would use 3 million gallons per well over a 30 year life. At 7 million gallons, fracing every 3 years, the industry would contaminate 70 million gallons of water per life of one well. None of this takes into account what WILL LEAK into the aquifer system.

# <u>154</u>.

## Tony

Boston

June 26th, 2011

11:40 am

Ho hum. Another day, another economic scam foisted on the American people. Put it on the shelf with all the others in our growing hall of shame. The shale oil scam already has a matching one called ethanol. Which is economically bankrupt as well. Just check out the op-ed on it.

Meanwhile, politicians are busy scheming to take away social security benefits so that we will be forced to invest our retirement savings in the corrupt casino called Wall street. Hope you all like cat food, because that is what you will be eating in retirement.

### 155.

## graddini

lkn nc

June 26th, 2011

11:40 am

Drill baby drill: shill baby shill.

## 156.

## <u>leptoquark</u>

Washington, DC

June 26th, 2011

11:40 am

Since we had to endure "Climategate", I think it entirely appropriate to hereby christen this "Frackinggate"

## 157.

Been there

nyc

June 26th, 2011

11:41 am

Important that we keep our eye on the ball. It is also important that we look at cases where there are significant positive changes in mineral exploration, like the Bakken formation. Balanced reporting please.

### 158.

Mary

Pennsylvania

June 26th, 2011

11:41 am

As someone living on the edge of the Marcellus Shale "play" - Thank you! Time to stop the madness: economic as well as environmental madness.

PB

Manlius, NY June 26th. 2011

11:42 am

Lots of high anxiety and worry over hydrofracking for us here in central New York, located on the Marcellus shale, with one of the largest clean underground aquifers in the country, the beautiful Finger Lakes and lots of smaller lakes, farmland, small communities, and metropolitan areas. The behemoth natural gas industry has leased land all over the place and is hell-bent on having its way with the state (public officials and politicians). Their legal shenanigans are staggering (laws exempting them from having to disclose the chemical cocktails used in the hydrofracking process; when leases expire farmers are not allowed to refuse to continue the contract, etc.).

The disastrous devastation caused by hydrofracking not far from us in PA has been a wake-up call, and should be sufficient to halt the wholesale destruction of water, land, towns (imagine thundering truck noise and industrial activity, air pollution, catastrophic "mistakes"/accidents, well-known carcinogenic chemicals drilled into the land and water and released into the air, etc., etc.). If in doubt, see "Gasland"!

How many decades, years, centuries will it take to recover, if ever, from the damage left in the wake of the natural gas drillers after they move on to destroy elsewhere. Dozens of citizen groups have organized to fight the beast, but are treated like pesky little flies getting in the way of jobs and big investor money to be made.

So thanks New York Times for this important article about yet-another possible economic scam and investor bubble, this time involving the natural gas industry. So far the cries and warnings over people's health, contaminated water, collapsed land and flooding (karst topography is prevalent here), serious air pollution, as well as land and town devastation appear to have had little impact on dissuading politicians and those imaging immense monetary gain for themselves by welcoming hydrofracking. Maybe threats of financial investor loss will do it.

### 160.

Carolyn Egeli Valley Lee, Md. June 26th, 2011 11:42 am

It is hard to fathom how these companies can play with the safety of the public for private gain. I was hoping it wasn't true. But it is true. There may be some of them that believe their own line, but they are self delusional. Thank you New York TImes supporting this reporter, Ian Urbina.

### 161.

rdgermany Texas June 26th, 2011 11:42 am They lie.

Bart Johnson Princeton

June 26th, 2011

11:43 am

Keep up the good work, Ian. Your relentless efforts in trying to raise the price of natural gas are greatly appreciated in the electricity business, which has been suffering in the current environment of low gas prices caused by the massive growth in gas production.

I feel like I should send you a little bit of my bonus as a reward for your yeoman work if you're able to slow drilling and raise the price.

## <u>163</u>.

### Lawrence Scott

NY City

June 26th, 2011

11:43 am

You cannot beleive anything big biz says, they speak corporatize, all fluff. This smells like all the other corp scam / hypes - Savings an Loans, mortages, .com bust, Eron, WorldCom, phony hedge funds, it goes on and on.

America's leaders, both political and business have lost their moral compass, too many lawyers, too many MBA's too lobbyist too many politiians ready to support the lies. Wake up America stay informed with facts.

#### 164.

Jeffrey Brown

Texas

June 26th, 2011

11:44 am

The EIA defines natural gas (NG) production as dry NG production. Following is what the EIA shows for production less consumption, and net imports, by year (TCF, Trillion Cubic Feet):

Production (P) - Consumption (C) = Net Imports

2005: 18.1 - 22.0 = -3.9 2006: 18.5 - 21.7 = -3.2 2007: 19.3 - 23.1 = -3.8 2008: 20.2 - 23.3 = -3.1 2009: 20.6 - 22.8 = -2.2 2010: 21.6 - 24.1 = -2.5

Obviously, rising NG production is a rare bright spot in the global energy picture, but the US remains a large net NG importer. At the current rate of decline in the US Consumption to Production ratio for NG, we might achieve zero net imports some time around 2017, but note that we appear to have seen a year over year increase in net NG imports in 2010.

To put our net imports in perspective, US net NG imports in 2010 (about 6.8 BCF/day, billion cubic feet/day) were approximately equivalent to all of Qatar's net NG exports for 2009.

To put it another way, US net NG imports in 2010, 6.8 BCF/day, exceeded total 2010 NG production from the Barnett Shale (Newark, East Field), which was about 5.0 BCF/day.

In energy equivalent terms (BOE, Barrels of oil equivalent), US net NG imports in 2010, about 1.1 mbpd of BOE (up from about 1.0 mbpd BOE in 2009), were roughly equivalent to 2010 net oil exports from Canada.

And as Art Berman, among others, have discussed, high decline rates versus limited equipment and personnel suggest that we may have problems maintaining rising NG production.

## 165.

norton jutland brooklyn. ny June 26th, 2011 11:44 am

I'm shocked, shocked! to hear that the oil and gas industry is deceiving the public.

### 166.

Nancy G

NJ

June 26th, 2011

11:44 am

Dumb and dumber--big industry PR and short term traders/speculators. It's not what's true anymore that drives behavior and decision making, it's

money (ideology follows as a close second).

## 167.

James

Chicago, IL

June 26th, 2011

11:45 am

The WSJ published an Op-Ed titled "The Facts About Fracking". They note that EPA administrator Lisa Jackson told Congress "there are no proven cases where the fracking process itself has affected water", which seems logical since shale formations are thousands of feet underground while drinking water is a few hundred feet.

Further the WSJ notes there is no evidence to suggest fracking causes earthquakes, cancer, toxic chemical release, or increased pollution.

All companies are required have drilling permits and abide by federal water laws, so the notion this is unregulated is tenuous at best.

And as for a bubble? Are you serious? Natural Gas is trading near a 15 year LOW. The NYMEX price between 1996-2000 ranged between \$2.00-\$4.50. Friday July futures closed at \$4.23. Unlike crude oil, farm commodities, copper, gold, silver, cotton and coffee that have all had bubble like returns to near 2008 highs, NG is nowhere near its 2005 \$15.50 price high. If there were supply issues that threatened consumers the market would be trading substantially higher.

In fact the industry may have shot itself in the foot so to speak by making a massive new supply of

gas available without the corresponding demand. How are stable (and low) NG prices bad for consumers?

What the shale gas industry has done is provide jobs and reduce unemployment. The WSJ cited 72,000 jobs created in states like Pennsylvania, West Virginia, and New York. The North Dakota unemployment rate is currently 3.2%, due in part to the energy industry.

This is not to say fracking is without risks. But our society runs on fossil fuels and no one likes paying \$4.50/gallon at the pump. We need a bridge fuel to the future until wind and solar are cost effective. The shale gas industry may be that bridge. Certainly it holds more promise than ethanol, which even Al Gore recently admitted is clearly a bust and was only supported for farm state political purposes.

## 168.

Tom

Boston, MA

June 26th, 2011

11:45 am

If we think finding sources for alternative energy is daunting . . . wait until we try "making" fresh, drinkable water. Oil & natural gas are valueless compared to fresh water & air.

### 169.

What me worry

nyc

June 26th, 2011

11:46 am

WAKE UP AMERICA ( if it's possible). CONSERVE -- ever heard that word?

Gasoline prices are LOW in terms of inflation (the cost of public transit is high -- Subway fare was 5 cents; gas was 30 cents/ subway costs 2.50\$/gas costs abour 4\$ -- get the point?)

But hey 55 mph saves fuel and lives (can't do that -- unAmerican -- wait we did that for about 15 years from about 1977-1992? -- oh well, in the olden days... people did stupid things!!:))

Oh yeah -- let's screw up our ground water supply so we can have more energy... but wait a minute

how about birth control -- which would in fact solve LOTS of these pretend problesm... (then of course, there's building sensibly with enough density to support public transit - no more Sun City Wests).

Taxing sensibly -- how about going back to 90% Patriotic Americans until the national debt is paid off.

How about teaching cooperation and commonsense... (The latter is prob impossible to instill...)

WHO KNOWS.

Gary Taustine NYC June 26th, 2011

11:46 am

Never-mind the possible economic consequences of another bubble, we're talking about millions of gallons of water mixed with dozens of deadly toxic chemicals at every single drilling site. These chemicals contaminate the surrounding air, land and water, then head downstream. Nearby humans, house pets and farm animals suffer a litany of health problems including hair loss, neurological damage and cancer. Some of the gas and chemicals even end up in the drinking water.

The NY TImes deserves a lot of credit for exposing the financial shortcomings of natural gas as an industry, but if you want a comprehensive and frightening look at the environmental results of Fracking, I urge everyone to watch "GasLand," a 2010 documentary by Josh Fox.

The corporations put the politicians in office, politicians repay the favor through deregulation, chemicals go into the environment, CEO's make their billions, and regular people suffer the consequences. There are people in Pennsylvania who can light their tap water on fire! Go ahead and google, it's true.

## 171.

Trillian

New York City

June 26th, 2011

11:47 am

I too am concerned, but it begs the question why would the majors be moving into this sector if it truly is not economically viable.

\_\_\_\_\_

Ah, but it is economically viable, to the liars and thieves who run the corporations. It's a simple formula that middle-class Americans fall for again and again, most recently with the LinkedIn ipo:

- 1) Company executives inflate worth of company
- 2) Middle-class Americans race to buy stock
- 3) That money goes directly into the pockets of the executives
- 4) Stock value drops almost immediately or company fails
- 5) Middle-class Americans lose all their money
- 6) Company executives keep all of theirs

How many more times does this have to happen before people wise up?

### BlueMoose

Binghamton NY June 26th, 2011

11:48 am

The shale gas industry is busy poisoning wells throughout Pennsylvania and has its sights set on upstate NY. The place is overrun with sleazy oil company execs from out West trying to corrupt our local officials.

## <u>173</u>.

MW

OKC, OK

June 26th, 2011

11:48 am

The way I see it, this article is another attempt to keep big oil's choke hold on our economy. Scaring everyone into believing that these companies are another Enron in sheeps clothing is rediculous. Sure, estimates have outpaced actual production numbers, but that's what they are - estimates. Natural gas production is still in its infancy and we need to give it some time. The way I see it, Americans should be hoping that this natural gas play works out. It's in our country's best interest and our interests as citizens to gain access to a more economical form of energy that puts money back into our pockets and our economy, not some oil rich country in the middle east. I'm for America and therefore, I'm for natural gas.

## 174.

**Charlie** 

Redding CA.

June 26th, 2011

11:50 am

Hook the wells up to Gas To Liquids refinery and we will have synthetic diesel fuel or jet fuel for a long time. Dynamic Fuels in La. is one company looking to do just that ,made in USA.

### 175.

BarryPar

Long Island NY

June 26th, 2011

11:51 am

This articles offers about as much evidence for the "dangers" of gas/ investments/ fracking as the U.S. did at the U.N. when trying to provide evidence of weapons of mass destruction. I am amazed that the NY Times would even run this. Did headline-grabber Rupert Murdoch buy the NY Times and I didn't see the news? Bubbles, scams, dotcoms? Please, it is irresponsible to offer an article like this.

All of us in the U.S. are in the midst of an epic struggle to get away from sources of energy originating in non-friendly countries. We are in two (maybe three) wars that are all about oil with a real cost in dollars and lives. The NYTimes ought to be applauding efforts of Chesepeake Energy and others to break the foreign oil dependency, rather than putting together a bunch of redacted hearsay that rivals the allegedly dubious investment claims in the fantasy department.

Steve Barryville, NY June 26th, 2011

11:51 am

On the same page as this article is an piece about how cable boxes and dvr's have become the new energy hogs of American households, and how American cable companies don't want to use the more energy efficient models because the boot-up time would be an inconvenience to users. If this doesn't perfectly illustrate how screwed up this country is with regard to energy consumption, nothing will. We are the most spoiled people on the planet, unwilling to sacrifice any aspect of of our cushy modern lifestyles for the greater long term good, and we will pay dearly for it in the end (which will come sooner than we would like to think).

### 177.

southvalley New Mexico June 26th, 2011 11:51 am

But they'll wreck the environment and the water tables in the meantime.

Check out what the oil companies are doing in Alberta, Canada with the oil shale. It looks like hell on earth up there.

Google it

## <u>178</u>.

D.P Brooklyn New York June 26th, 2011 11:53 am

I want to know why the NYT is not interviewing the people who are sick, relatives of those that have died, people that can no longer live on their properties, people that have been ravaged by this exploitation of these gas companies. Anyone including the NYT, see the HBO documentary Gas Land, by Josh Fox, winner of the Sundance Film Festival? I suggest strongly that everyone see this film. It is another story and notch in the Corporate belts. The story of greed used for a political platform, (as it often is) which is to figure out how this country is going to make a go for additional energy, not necessarily renewable energy. The story that reminds us all that human life can be disrupted and disavowed at any time without consequences.

Yes, the people affected by this atrocity (that means a large amount since the gas drilling has been done in many states, cannot file major law suits. Why? They were made to sign waivers that keeps the companies clear and free of prosecution. Once the affected people complained and contacted the leaders of the gas companies, they were told that they could get their well capped for free, they would get water delivered on their land etc.. The affected people accepted and voila! Another disaster. Guess who owns a huge part of these gas companies? None other than Dick Cheney, and according to the records, of course he knows very well what is going on. That is how he and the biggies make their money and will continue to do so. Think Congress and the White House doesn't know about this? Think again!

This is the same mantre we see and hear over and over. What happened in the Supreme Court last week turning down the class action law suit, looking for every loop hole and legal interpretation to throw it out. No rights for those who oppose the big corporations, after all it is also the Supreme

Court that decided that the Corporations could basically do what they want, and remember they pay no taxes!

#### 179.

jerome belasco seattle

June 26th, 2011

11:53 am

geez, the only 100% CLEAN energy source is using LESS energy!

Let's reduce, reuse, recycle. Not drill, drill, drill.

#### 180.

#### **Duncan Lennox**

Canada

June 26th, 2011

11:53 am

Thanks for the tip NYTs. The USA's history of get rich schemes that are based on Barum and Bailey's "There's a sucker born every minute" are stinking up this story.

#### 181.

Steve

Los Angeles,Ca.

June 26th, 2011

11:53 am

For those interested in oil and natural gas industry try going online to Rigzone.com. I would recommend it to those who want to learn about the business and the players involved without the bias of the Wall St. Journal( yesterdays op-Ed) or today's New York Times piece.

#### 182.

Salvatore

Brooklyn

June 26th, 2011

11:53 am

Please make sure Mr. Nocera from the Opinion page reads this article.

#### 183.

#### jumpstart

Tallahassee, Florida

June 26th, 2011

11:54 am

This is a great article, great investigative reporting. Where was the SEC 2007--BUSH ADMINISTRATION, no need to ask that but today many that remain in the SEC are from the Bush Administration, one of the many downfalls of the Obama Administration when they did not clean house of those responsible for many of the dire situations from housing collapse, wall street corruption and energy manipulation. Even now states must to return to coal and more gas which has shown to cause extreme environmental damage and rising of sea levels due to global warming. Just ask Norfolk, Virginia and soon to be Miami with the new dredging of the existing port to bring in more coal. Energy companies are knee deep in protecting their turfs, and the coal and gas industry

has found their stronghold in financing many congressional and state legislature members and hype and lies have always produced PROFIT. Hopefully the truth will find its way out. Thank you NY TIMES for printing this article and to those who risk their careers in doing what was Right.

<u>184</u>.

**Charles** 

Clifton, NJ

June 26th, 2011

11:55 am

This fine article by Ian Urbina clarifies a lot for me in the shale gas debate. On the supporting side there is a lot of feeling which translates to confident truth, but I'd like to see the calculations on which industry projections are based. One poster here responds confidently that those in the know see shale gas as a productive, economically viable resource. But the reasoning is absent. And from Ian's article, it appears that some geologists and executives are aware of its absence.

How is the estimate of shale gas reserves determined? Did researchers extract gas from a small volume of shale in the laboratory, seismologically estimate the size of the shale gas fields, then combine the two into an estimate for the total? That is a little like calculating the useful energy from fission, of which there is much, but as we well know, the process of extracting that energy has turned out to be expensive, and lethal. Not only that, but a simple calculation allows for gross overestimation of the reserves, because it supports the bubble mentality about which Ian writes. The tendency is to believe in the high upper bound estimate for production without a careful analysis. Investors jump in. It sounds like we need much more careful evaluation of the gas reserves and their economic viability.

The pollution costs of extracting shale gas are disturbing to me. Earlier articles in the New York Times have reported the difficulty and stress on water treatment systems caused by dumping the spent water into them. A friend of mine is training students in remediation and pollution technology of these wells, so they are creating ancillary jobs. But I'm not sure that one would be happy at welcoming these people onto your property because the groundwater around your community has been polluted by a hydrofracking operation nearby.

#### <u>185</u>.

HJS

Durham, NC

June 26th, 2011

11:55 am

Having myself looked at several proposals to invest in shale gas and oil, this article rings true on all counts. Barring the discovery of an entirely different recovery process than fracking, counting on shale gas as a viable source of energy is absurd. Furthermore, why anyone would take the word of an oil industry executive at this point is beyond me.

#### 186.

tony

morristown,nj

June 26th, 2011

11:55 am

Before we condemn the oil and gas industry as "greedy", let see if we are doing everything we can to cut energy use:

- 1. Are you line-drying your laundry? I am. Al Gore probably not. His energy use is 10-20 times of Average American family.
- 2. Are you keeping your set-top box off most of the time? See today's New York Time article. I don't watch TV, so I don't have a set-top box to turn off.
- 3. Are you recycling grey water? I am. I keep a bucket in my kitchen, and reuse it for my lawn. American waste drinkable water for swimming pools and lawn. It is no better than using it to extract natural gas to power our home so we can dry our laundry.

Dave S

Lafayette, CO

June 26th, 2011

11:56 am

the first paragraph says it all. BIG PROFITS. as always, that trumps everything else, including any and all environmental issues.

#### 188.

Jay

Calif

June 26th, 2011

11:56 am

The WSJ article today says our shale natural gas production has risen from 1% to 25%, since 2000 - which would indicate success, not speculation. If the churches are making income from investments (gas leases), then they should be taxed. Canada is ahead of the US in oil/gas production from the shale just across the border. We are crazy not to become energy independent.

#### 189.

Ike Solem

CA

June 26th, 2011

11:57 am

If you want to see the true energy position of the U.S. government, from Congress to the Executive Branch, just look at this Bloomberg article:

http://www.bloomberg.com/news/2011-06-21/solar-companies-race-to-finish-...

"Solar Companies Race to Finish Projects as Tax Grants Expire By Christopher Martin, June 21 2011"

Meanwhile, massive tax credits for the fossil fuel industry - as well as loan guarantees for tar sands feeder pipelines - are extended over ten-year periods, and the so-called 'oil depletion allowance' remains in force. That's just domestic - internationally, the Export-Import Bank and the State Department refuse to back anything other than fossil fuel projects (for example, they're heavily promoting the TAPI pipeline across Afghanistan, at a cost of \$10 billion, just as they promoted the \$4 billion Chad-Cameroon oil pipeline a few years ago).

That's the reality - and the claims that Obama is "anti-oil" are nothing more than political posturing. It's hard to say what is worse - Bush blatant support for the fossil fuel industry, or Obama's two-faced posturing on these issues (secretly supporting fossil fuels and nuclear, while pretending in

public to be backing renewables).

China, on the other hand, is consistently doubling its renewable energy manufacturing capacity every year, positioning itself to be the world leader on energy as fossil fuels and nuclear fade into history - while the U.S. continues to shoot itself in the foot on behalf of a cartel of international fossil fuel interests.

Thanks for nothing, Obama.

190.

**Patrick** 

Long Island NY June 26th, 2011

11:57 am

http://www.energysavers.gov

LEARN TO CONSERVE so we dont need the natural gas.

Download the PDF booklet and learn some easy and cheap tricks to saving gobs of energy.

191.

Tom Evslin

Stowe, Vermont

June 26th, 2011

1:36 pm

The fact that there is a natural gas bubble - if it is a fact - is good news. It means that private money is flowing in to drill wells and build ng infrastructure so that the price of this relatively clean domestic energy will stay low for a long time to come and we can reduce oil imports. Sure, some investors will lose money - that's the way a free economy works. Much better than having government subsidies. Government's role here is to regulate safety and fraud, not be an investor. Government-inflated bubbles burst even harder than those inflated by private dollars because governments can throw good money after bad longer. Remember ethanol and housing.

The first Internet bubble resulted in very cheap bandwidth (along with some bankruptcies) and the modern Internet was born based on cheap data transport,

Cheaper energy funded by private capital will be great for our whole economy.

<u>192</u>.

joe

mississippi

June 26th, 2011

1:37 pm

In the late seventies through the mid eighties I worked offshore as a crane mechanic the oil companies would blow off exsess gas into the air at night time when the MMS or Coast Guard wasn't watching be cause they were alotted how much they could put in the pipelines to shore ,any amount up th so much over that emount they had to give the companies that owned the pipelines for free and any over that they had to pay th give it to them, so at night millions of cubic feet went into the air,the gas was a byproduct of the oil they were producing and it cost them to get red of it.

#### Tom Evslin

Stowe, Vermont June 26th, 2011

1:37 pm

meant to add a link to last comment <a href="http://blog.tomevslin.com/2011/06/great-news-theres-a-natural-gas-bubble...">http://blog.tomevslin.com/2011/06/great-news-theres-a-natural-gas-bubble...</a>

#### <u>194</u>. MEG

New York

June 26th, 2011

1:38 pm

Yes, yes to Ian Urbina's excellent article. Chesapeake has been cited for illegal dumping of toxins in Pennsylvania, and for unsafe wells and accidents all over the Northeast. I hope that we come to our senses before it is too late, before our precious water and land resources are destroyed beyond reclamation. Every single person that I speak to in neighboring Pennsylvania tells of contaminated drinking water, sick livestock, and ruined rivers and streams. These rural lands are intimately connected to the major population centers of New Jersey, Philadelphia and New York City through water and food distribution. My friends, we are all in this together. If we do not re-direct our economy's dependence on fossil fuels, and change our way of living, we are going the way of the dinosaurs whose remains we are driving.

#### 195.

emers1 New York State June 26th, 2011 1:43 pm

The gas drilling companies cannot be trusted to tell the truth. They tricked property owners in shale regions all over the country into signing leases through lies and intimidation. The companies' landsmen (salesmen) pretended that conventional vertical drilling would be used. Fracking was never mentioned and didn't appear in the leases. Few people had heard of this new method and had no reason to be suspicious.

Landowners were told that their land was in a forced-pooling district, so the owners' land was going to be drilled whether they agreed to it or not. In New York State, a forced-pooling district is automatically established when a certain percentage of acreage (such as a minimum of 640 acres) is leased in a given area within a county. Forced pooling is used in 39 states: <a href="http://www.propublica.org/article/forced-pooling-when-landowners-cant-sa...">http://www.propublica.org/article/forced-pooling-when-landowners-cant-sa...</a>.

Considering that in many cases the claims about forced pooling were made at the very beginning of the companies' efforts to obtain leases, the pooling districts could not have existed yet. But the property owners didn't know that.

If the landowners went ahead and signed the leases, the landsmen said, they would have input on where the drilling equipment could go on their properties. Otherwise, the equipment and access routes would go wherever the drilling companies decided to put them.

An alleged document used by landsmen, "Talking Points for Selling Oil and Gas Leases," coaches

the landsmen on what to say and what to avoid saying in tricking property owners into signing leases:

http://www.alternet.org/story/150597/revealed:\_confidential\_document\_sho.... The document appears to be real, since the talking points are all too familiar to landowners who received the sales pitches.

The NYS Legislature and other state legislatures should pass laws allowing deceived landowners to terminate the drilling leases.

#### 196.

Bob Hulse Arp, Texas June 26th, 2011 1:44 pm

The article speaks of 'shale gas' as if it is one thing; it is not. Each field and zone are different and have different characteristics. The folks that are quoted seem to be speaking generally about all shales which is just not accurate. As a Geologist I know that very few of the things my colleagues take as fact are well understood in the first years in the life of a field or in this case a 'play' (the Shale Plays). Some of these are much better than others. From the reading that I've done the Marcellus Shale is clearly a winner, as is the Fayetteville and Barnett. Your quote from the PetroHawk CEO regarding the good spots to drill vs the not as good surrounding area is a good one as economics, mainly the price of the natural gas at the time the well is drilled, will determine how many of those wells are drilled. In my Operator days we did not drill wells we thought would not payout and make a decent return on our invested cash. Public companies may be able to use their investor's money to drill unprofitable wells, but shame on you if you stay with them.

Natural Gas should be the interim fuel between Oil and Renewables. Shales will be a part of that, how much will apparently be determined by politicians and lobbyists who do not understand much about the energy business. If that is not clear please take not of our lack of a national Energy Policy.

We should be self sufficient in energy and yet import 60% of our oil from foreign countries. Were we to switch our oil needs to this natural gas resource our country would have about 35 years to get the renewables program up and running before the natural gas winds down. isn't that a good goal?

#### <u>197</u>.

Andy Russell Tallahassee, Florida June 26th, 2011 1:45 pm

New Technologies drill for natural gas at a level far bellow water tables. Fracking has been standard in the industry for sixty years. What is new is horizontal drilling that has made drilling even safer.

Look up the 2004 EPA study that concluded after investigating every press report not a single case of gas in water could be shown to be caused by fracking. New fracking techniques are even safer since they occur thousands of feet bellow water tables.

Who is sponsoring journalist and film makers who distort the facts about natural gas? OPEC and Oil import interest fear Americas conversion to it's own cleaner less expensive fuel which we call natural gas. As the International energy administration said " we are entering the Golden Age of

Natural Gas."

OPEC does indeed fear the prospect of Americans driving on their own cleaner less expensive fuels. Americans are quickly learning that they have an abundance of clean less expensive fuels. Americans would love to see OPEC become irrelevant. Can Congress see the opportunity?

#### 198.

#### **OCULUS**

Albany

June 26th, 2011

1:45 pm

There's not a recent email cited in this semi-suspicious "revelation" piece. Nor, is there any news: prices go down, so does drilling. But, strangely, there is no mention of the discoveries driving down global gas prices. For this reason, the delay in eastern plays is reasonable/prudent; however obversely, it provides the eco/left more time to perfect their desperate attempts to derail EASTERN shale gas.

Sure, the numbers may be optimistic to outsiders, but to insiders, well, they don't call this business "wildcatting" for nothing.

#### 199.

Frank
Santa Monica, CA
June 26th, 2011
1:45 pm
Raise your hand if you're surprised.

#### 200.

Gary Hemminger SF Bay Area June 26th, 2011 1:46 pm

We must stop this natural gas expansion in the US as soon as possible. If we allow this to occur, we might be able to produce the energy we need without having to import energy from unstable countries. This would ruin our chance of converting our economy to a green economy and lowering our CO2 footprint. If we don't drastically lower our CO2 footprint, we will all die.

#### 201.

Teri T.

Alton, IL

June 26th, 2011

1:46 pm

I want Dick Cheney, who cast the deciding vote NOT to protect our water. Who voted to allow his fracking buds to ruin our nations water supply in the name of greed and profits. I want him to be forced fed the water, please.

#### <u>202</u>.

Darrell

Texas

June 26th, 2011

1:46 pm

Maybe someone should ask the investors. Maybe they know something a NYT Journalist refuses to grasp. An investor invests for money. Journalist invest for swaying the masses to their opinons and biasedness. Thats why we call investors, investors. And Journalist, Journalist. NYT is just upset because their not investing according to Socialist, Environmentalist, and Democrates viewpoints and dictations.

#### 203.

plang1 rhode island

rnode isiand

June 26th, 2011

1:46 pm

when you get right down to it dirty old coal is the only fuel america has that makes money and china expanding as fast as a leaderless america declines cant get enough of it!the american people need a president not natural gas!

#### 204.

frflyer San Rafael, CA June 26th, 2011 1:47 pm @Rich #22

You don't like subsidies for solar and wind? Subsidies? You mean like the subsidies oil has been getting since 1918? Or how about the subsidies coal has been getting since 1932? Fossil fuels get much more in subsidies and tax credits than renewables get.

In 2005 the Bush administration increased oil industry subsidies by \$32 billion over a five year period.

All the wars we fight in the mideast are subsidies for oil. People are dying for oil by the thousands.

Solar and wind will not need subsidies within this decade, possibly within 5 years. Oil and coal have been subsidized for nearly a century.

We are also subsidizing fossil fuels by pretending that the externalized costs do not exist. In reality, they are hundreds of \$billions a year in the U.S.

#### <u>205</u>.

Harry California June 26th, 2011 1:47 pm

The headline of the article wildly oversells the content.

- 1) There is never going to be unanimity even among experts about the quality of shale gas reserves.
- 2) Natural gas prices are very low right now, which is a reflection of the market's assessment of the supply/demand balance. Clearly the future supply of shale gas looks real to the market and is depressing prices.
- 3) There is always going to be a "stack" of supply, which varies in its cost to extract. If prices increase there will be more supply as previously uneconomical reserves become profitable to produce.
- 4) I guess the major oil companies which are getting into the shale gas game are victims of the bubble / Ponzi scheme / cover up also.

http://energypricedata.blogspot.com/

206.

**TXsharon** 

Texas

June 26th, 2011

1:49 pm

@Kenneth Ranson in Salt Lake City

I am also a Texan and a mineral owner.

I have given numerous tours of the Barnett Shale to top EPA officials, environmental orgs and major media outlets. I just returned from a tour of the Eagle Ford Shale. I have also toured several other shale plays. You say all the shale plays are different but you use only one criterion, economic viability. There is another way to view the shale plays and that is from the impacts to people, wildlife, water, air and soil. From this perspective, shale and CBM drilling are all exactly the same.

Here's what the people who live in the gas patches know: Where drilling occurs, people get sick and where fracking happens water is contaminated.

Barnett Shale vs Eagle Ford Shale. Right now, the Eagle Ford Shale is all the rage because the oil and condensate found there makes it more economically viable due to high oil prices. What most people don't know about the Eagle Ford Shale is it requires 2 to 3 times more water—an average of 7.5 million gallons per well—to frack those wells. (In our world fracking does have a "K".) These liquids require even more intense processing than the natural gas in the Barnett Shale. The build out of infrastructure down there is tremendous! With the constant flares and all the processing plants, the air quality is already suffering.

Shale plays may be different economically but considering the human and environmental impacts they are all an EPIC FAIL.

frflyer San Rafael, CA June 26th, 2011 1:49 pm

The wind industry now employs more people than the coal industry.

The solar industry now employs more people than the steel industry.

Discouraging development of green energy like solar and wind will ensure that the U.S. falls further behind in the worldwide clean energy revolution that is being led by China.

Natural gas is not clean energy. Yes it is better than coal and oil, and can be a transition energy source on the way to a clean energy future.

Running cars on Natural gas is highly inefficient compared with using it to run power plants to power electric vehicles.

We need improved mass transit including high speed rail. We should be converting much of our truck transport to rail which is far more efficient.

Phasing out coal will open up a huge amount of rail capacity that is now used to transport coal. About 1/4 or our rail capacity is now used for coal transport.

Solar thermal power plants with molten salt heat storage can produce much of the needed base load power, day and night.

If an area in the southwest deserts, 42 miles x 42 miles, was filled with such solar thermal plants, they could produce as many megawatt hours of power as all the coal plants in America. My rough calculation is that this is 2-3 times the area now evacuated around the Fukishima nuclear plant in Japan.

#### 208.

#### Arsenal/Gooners

Fort Worth, Texas June 26th, 2011 1:50 pm

I live in Fort Worth, Texas and I along with my siblings take care of my elderly parents who own their own home on 3 acres of land. Ever since the Natural Gas craze started a few years ago my siblings, brother in law, and sisters in law have all been suspicious of these wild claims great returns if my parents were to lease their land to one of the gas companies.

We are fortunate that my brother in law owns and develops commercial properties, sister in law is an economist for local bank, and my best friend from graduate school worked for Enron and was there during the collapse.

My siblings and I did our own research with all of coming to the same conclusion that what the gas companies were promising was a total lie. It was real sad that some of these gas companies showed up without notice to my parents home and tried to have them sign the leasing rights away again promising huge returns. Also, that we my family were wrong on conclusions on our research and those who we spoke with are full of bull puckey.

In the end mother and father never signed off the lease going on the research of family instead of the gas companies.

This story just validates what we thought about 3 or 4 years ago.

The gas companies tried to pull a mickey on my parents and what they try to pull on the these property owners is pure bollocks.

Here comes Enron The Sequel.

#### 209.

Brandon

Dallas

June 26th, 2011

1:51 pm

As disturbing as this article is in general, imagine how bad it is for those of us living in DFW, where we have spent years listening to constant "get rich" propaganda from the natural gas industry and where gas wells litter huge parts of the metroplex (they can be found in highway medians, churches, backyards, shopping centers, etc).

#### 210.

James Northrup

Dallas

June 26th, 2011

1:51 pm

This is old news in Texas - where the valuation gaming started with HHF oil wells in the Austin Chalk

Horizontally hydrofracked wells are notoriously hard to value, since they come in so strong and peter out so quickly.

Since they are valued using NPV assumptions on financial statements - and questionable reserve reports, this lends the valuations to being gamed - they look good because of the initial production shows up well on NPV valuations; the higher the discount rate, the better they look relative to conventional wells with flatter decline curves.

Easy to game the valuations in order to boost the share price (and the CEOs bonus), and sell shares which in turn is used to drill more wells. . . . repeat . . . until the music stops.

#### 211.

Nick Grealy

London

June 26th, 2011

1:52 pm

Unfortunately, the shale issue is degenerating as we see here to something that is driven not by science but by politics. The environment is a human issue, not political one. It can't be right/left or green/cc denier.

Base it on science:

Both right and left should agree to put away emotion and accept science. The left accepts that properly regulated shale has the overwhelming scientific fact of being almost risk free. The right accepts that global warming is similarly backed up by overwhelming scientific fact.

If both get away from a juvenile battle both sides, along with the planet and economy Will be the winners.

#### 212.

harry michigan June 26th, 2011 1:52 pm

Does anyone question why we are all seeing advertising on TV and radio from the carbon industry. Why do coal and natural gas companies need to advertise to convince us we need them so much. Its sickening that they can spend billions advertising and bribing our gov via lobbying. If we were to spend as much money on electrification of the southwest desert and solar panels on homes we wouldn't need hydrofracking. Wake up america, you are all being conned. They could care less about polution, its just about burning new sources of carbon to enrich themselves. PS, has anyone seen their gas bill go down with all these new sources of nat gas? Mine has gone UP UP!

#### <u>213</u>.

robin NYC June 26th, 2011 1:53 pm GAS & MIRRORS:

Congratulations to the NY times for its increasingly visible coverage of hydrofracking since 2009. Unfortunately, many downstate residents are still unaware of its dangers.

Drilling companies have poisoned uneducated consumers in the past, especially in KS, TX and PA. We in NYC can neither afford to pollute our drinking water with their chemicals nor subject our energy costs to their smoke & mirrors based economic justifications.

#### <u>214</u>.

C.M.

New York

June 26th, 2011

1:56 pm

Smell the smell - the rats are jumping ship. Bloomberg reported in December of last year that Chesapeake was turning to oil for future profits. They are divesting themselves of the shale assets while they still can. Strange, too that the article fails to mention that fracking, both shale and geothermal, are believed to have caused earthquakes in California, Arkansas, the UK and Basel Switzerland; far too many times to dismiss as coincidental, as the industry is wont to do. Ignoring the industry insiders and geologists is on a par with what happened during the financial crisis, when the warnings of various well-respected "quants" was ignored with respect to the pitfalls of the financial models they themselves had developed.

Aubrey McClendon sold his entire stake in the company in 2008 to satisfy a margin call during

market turbulence. An environmentalist he is not, in spite of hawking natural gas as being "green." In fact he has been riding rooughshod over local communities in Michigan in a quest to develop sensitive dune land on the banks of Lake Michigan. In the style of the Koch Brothers, he has financed questionable groups

in order to influence political outcomes, having made significant donations to the swiftboat group, whose misinformation damaged John Kerry's presidential bid in 2004, and a conservative group that campaigns against gay marriage. My guess is that he's probably a libertarian at heart, and finances anti-gay causes as a tactic to divert political attention away from environmental and regulatory issues during elections. A twenty minute Google search of the guy will uncover enough information about him and his character to cast doubt on anything that comes from his lips.

Zero energy homes have already been built, using materials and technology currently available "off the shelf."

http://bestplaces.nydailynews.com/stories/kid-soho-builds-countrys-first...

#### 215.

thomas

Deposit, NY
June 26th, 2011
1:56 pm
"....subsidies being considered by Congress."

I'm disgusted.

At the same time I'm fighting to enact greater regulation and restrain oil companies rush into taking my water, my air, and my peace of mind, Congress is doing Obama economics by tilting the free market. I feel like a small fish swimming against a red tide.

"Incentives!" If gas doesn't pay, then it's not worth it. This is like pushing ethanol only to hurt food production. This is like pushing home mortgages only to have Wall Street go nuts.

Who's deciding that natural gas is THE answer. A study from Cornell just showed that fracking extraction produces more green house gas than coal.

Big money is pushing half truths through Congress to give them a leg up.

Now's the time for a renewed moratorium in NY till we see which where the truth is.

You can't drink or breathe money, but you can always burn it for a little light.

#### 216.

Skip Wenz Corvallis, Oregon June 26th, 2011 2:28 pm

It's amazing to watch the desperation of the fossil fuel industry and its supporters and dependents (read, "global elite") as they scrape the bottom of the barrel to keep their non-renewable con game going. Fracking, deepwater drilling, wrecking the tundra, tar sands, ethanol, arctic oil.

They, and we are reduced to the manipulation of markets to make fossil fuels "profitable." The underlying principle is poor EREI, or Energy Returned for Energy Invested. We're out of cheap oil and fossil fuels, and the only way we can avoid this fundamental fact is by pushing lies.

Fortunately, we won't be out of cheap, abundant sunlight for another five billion years.

#### 217.

MargeS Remsenburg, NY June 26th, 2011 2:29 pm

A great service was accomplished, notably for citizens of New York State, by Jan Urbina in his article on Insiders Sound an Alarm Amid a Natural Gas Rush June 26, 2011. Most of this information has been known for years. Some four months ago my wife and I took a special trip to Washington to call these facts to the attention of the Environmental Protection Agency. We were not even allowed into their offices, though all we wanted to do is to drop off informative economic literature on the subject of hydro fracturing.

More recently we attended Delaware River Basin Commission hearings in Trenton, New Jersey and Deposit, New York on the viability and environmental impact of hydro fracturing where such arguments by numerous participants were equally met with skepticism. We also sent such economic studies to our State and Federal Representatives.

We are particularly disturbed by the massive effort of power companies to build pipelines in Pennsylvania, New Jersey and New York to deliver natural gas before the viability of its supply have even been confirm and the long term environmental consequences have been exposed. Mr. Allen Brooks ("Musings from the Oil Patch," February 1, 2011, page 6) warns that believing in the myth of "100 years of gas supply could lead this country into another energy disaster."

#### 218.

**Gary Williams** 

Signal Hill, CA

June 26th, 2011

2:29 pm

Perhaps the drill, drill crowd doesn't have all the answers unless they plan even more subsidies for the natural gas companies.

# <u>219</u>.

**Paul** 

Bellerose Terrace

June 26th, 2011

2:29 pm

Perhaps Joe Nocera would like to reconsider his column, "Frack, Baby, Frack." That's what happens when one nakedly advocates the position of 'a friend,' as Nocera described T. Boone Pickens.

Sol Biderman Brazil June 26th, 2011 2:29 pm

#### POWER TO THE PEOPLE BY THE PEOPLE AND FOR THE PEOPLE

Multiple sources of energy are needed to create independent countries, gas,shale,oil,solar, hydro,wind,ocean wave,corn and sugarcane ethanol,erd generation ethanol, soy,sunflower,castor oil and jatropha biodiesel.Some are less efficient than others but the least efficient of all is buying oil from the Middle East.-Sol Biderman.

#### 221.

kirktim Portland OR June 26th, 2011 2:30 pm

Hats off to the NYT for finally displaying a little energy industry skepticism. Now, if they could just expend a little more effort and factually address the bigger problems of increasing world oil demand and decreasing oil supplies, maybe Americans will begin to realize their energy future must not be placed in the hands of a few Texans.

#### 222.

MaryS447 Windsor, NY June 26th, 2011 2:30 pm

Thank you Mr. Urbina. For some time now, I have noticed that whenever the shale gas industry provides estimates showing how abundant shale gas is, those figures are not accompanied by estimates of the number of shale gas wells that would be needed to get all of that gas out of the ground. That is a striking and suspicious omission.

Estimates of the total financial cost of the much-advertised "100-year" supply of shale gas are not provided by the gas industry either. They also neglect to mention any estimates of the costs of damage to the environment and to human health. No doubt the gas industry expects the rest of us to cover these unmentioned costs for them. What a scam.

#### 223.

LD Fraley Sugar Land TX June 26th, 2011 2:31 pm

I don't understand this article. Do the large shale E&P companies really not understand the flow characteristics of shale? That has been known for nearly a century.

I grew up in Eastern Kentucky. Shallow (less than 1000 feet) gas wells were common...drilled into either shale or coal. The initial gas flow was large that fell off radically after a year or so but then continued indefinitely. Some that were drilled in the 1930's are still producing .My Grandfather had one on his five acres. This characteristic is due to the low porosity of shale.

If there is an investment bubble in shale, it was likely not created by the gas E & P's but by the Wall Street bunch mis-applying the flow characteristics of porous sand wells to shale while pumping up some stock they are pushing. Should be a jailable offense.

#### <u>224</u>.

bubba0264

Bristol, Va

June 26th, 2011

2:32 pm

- "...they prey on people desperate for economic hope. Once again, the millionaires will make out big while we are left when the bubble bursts."
- 1. If you get an upfront payment, you have the up front payment. You made an economic decision and benefited with cash. If you did not receive the money, then you did not have to deal with the drilling, etc.
- 2. If you have a gas well, generally you will receive 12.5% of the production of your well. The better the well produces, the more money you will receive in the monthly royalty payment. The less productive the well is, then you will receive less income. But MOST wells pay out at the rate of 12.5% of paid production. When the price of gas goes up, so will the royalty checks.
- 3. If you convert your tax exempt church, synagogue, mosque, or other charity into a business, then you have to pay taxes on the property and the income. If a church entered into a business, pay the taxes,
- 4. The millionaires paid the upfront money, obtained the permits, paid for the drilling and the labor of the drilling without earning one penny. If there is gas production, then they will have to pay for the pipeline. Then they get to sell the gas, after it has been cleaned of other products, such as propane, butane, co2,water. Then they take the market price. Then they send the landowner a check for 12.5% of the sales price. How exactly does this hurt the landowner when the bubble burst?

  5. For all the people who hate gas/coal/oil and other fossil fuels, what will you give up to prevent an energy crisis? Should we build nuclear plants near your house? Will you be willing to live with a huge decrease in electric usage until we can develop efficient wind/solar/tidal alternate fuels? Should we plant all of the land in the United States in corn to produce a deminished quanity of ethanol? What can we do except use what is available.

#### <u>225</u>.

bob

texas

June 26th, 2011

2:32 pm

With so much at stake; unstable international oil supply, a cleaner burning fuel, a large but ultimately finite supply, unclear but troubling environmental issues, and the risk of the world's most precious resource - water, it seems we need a hydrocarbon expert in the white house, perhaps someone with a sophisticated energy policy like drill baby drill.

Holly

Seattle

June 26th, 2011

2:32 pm

"Long-Term Outlook for Gas Remains Bullish"

So much paranoia, so little knowledge. When reality is complex, it can be very scary for some folks. Try reading Rigzone.com, stay calm and think.

#### 227.

Scramblinman

Everywhere, USA

June 26th, 2011

2:33 pm

Lets sell this whole mess to the average guy, say door to door (shares in your local well), and put all the little guys in business, history shows thats when just about anything will make sense.

#### 228.

Len

VT

June 26th, 2011

2:33 pm

WHERE WAS OUR GOVERNMENT WHEN THIS WAS HAPPENING? IN THE NEXT ELECTION IT IS TIME FOR "CHANGE WE CAN BELIEVE"!!!

#### 229.

Kathleen

**NYC** 

June 26th, 2011

2:33 pm

I'm still stunned that so little is being written and spoken about the impact of all this on the planet. What are we thinking, you too, NY Times who barely touched on the environmental impact in this article? What makes us think we can simply continue to violently remove natural resources from the planet without disastrous consequences? Do we care not at all for generations to come, our children, out children's children, and so on and so on? I'm so disturbed by this lack of acknowledgement of the potential for real harm. We need to wake up and take serious steps, though I fear we will not. I'm so saddened for my grandson and the world he is growing up in, fearful for what he will have to deal with when I am long gone. No more to say, I simply shake my head in disbelief.

#### 230.

Steve Gabel

Los Angeles, CA

June 26th, 2011

2:34 pm

Well, we can't pay for the damages because we didn't make enough money. That's coming next.

# PUBLIC COMMENTS from the June 26, 2011 New York Times article, Behind Veneer, Doubt on Future of Natural Gas

#### 1.

Bart Johnson Princeton June 27th, 2011 12:38 am

The only people who work at the EIA are those not competent enough to get jobs in the private sector. The notion that anybody in the industry pays any serious attention to the AER is laughable at best.

The EIA is pretty good at collecting and publishing statistics, moderately good at analysis and generally useless at forecasting.

#### 2

#### **Long Tall Texian**

Deep in the Heart of Texas June 27th, 2011 7:26 am

I would love to see a natural gas powered car available for consumers.

### <u>3</u>.

# Richard

Stateline, NV June 27th, 2011 7:26 am

There has been a major campaign underway for some time against large scale gas recovery from shale. Ask yourself why? First the reports were we should regulate because there was too much gas, now we should regulate because there might not be enough or we don't know how much there is. Using natural gas as a replacement for coal will save the environment and will save money too. Domestic gas replaces foreign gas and provides jobs here at home. The same technology is about to revolutionize domestic oil production as well. We need to develop our own energy resources rather than send money for energy out of the country.

We need to see that people with a financial interest in reducing the domestic supply of gas and oil don't have any influence over our energy policy.

#### <u>4</u>.

John Gardner Los Angeles, Ca. June 27th, 2011 7:26 am

This country is sitting atop enormous natural gas reserves. Two recent gushers in the Marcellus Shale natural gas field illustrate the potential of the new finds.

#### 6

#### Darrell Hampton

Dayton Ohio June 27th, 2011

7:27 am

It is very difficult to expect a person to tell the truth when their paycheck is contingent on them lying. I would not trust any of these projections coming from the exact same people who stand to profit from their own rosy projections. Also, no mention was made, in this article, about the horrible destruction of our drinking water supply which is unsustainable at the rate these companies are destroying it. Even the major drilling companies are now trucking in water and installing tanks on the residential properties so the local folks can eat, drink and bathe. I fail to see how this will be a successful way to provide energy in the future. As usual, when the story sounds too good to be true, it usually is!

#### <u>7</u>.

Roy Everett UK June 27th, 2011 7:27 am

The USA is sitting on a mountain of coal and a wealth of easily accessible methane, not to mention uranium and thorium. Only the most incompetent administration could manage to create a shortage of energy. It has achieved this by tampering with the free market through subsidies, tariffs, taxes, scare stories, junk science, manipulated statistics and propaganda to such an extent that the economy of individual states, indeed the whole country, is being wrecked by the imposition of artificially high energy prices and hopelessly inefficient new-age generating machinery. Combine that with the best efforts of the the UK and especially the EU, and it is no wonder that the manufacturers of the world are heading to India and the Far East.

In the UK we used to smile at sandwich-board eccentrics who walked down the promenade on the South Coast announcing the imminent end of the world if we did not desist from whatever particular activity the eccentric considered sinful. Unfortunately, like the rest of the EU and the US, we now elect them into public office. What started this collective insanity and how may it be cured?

#### 8

Calvert Cliffs Maryland June 27th, 2011 7:27 am

Ground Water Protection Council? Financed by the gas industry? When you see the Orwellian names you know the conduits are being installed for industrial scale lying.

#### 9

ExNavyNuke Expat June 27th, 2011 7:28 am

The Bush administrations "fracking bill" slid in under the guise of cheap energy and eliminated EPA rules to allow the energy industry to pollute vast swaths of ground water. Do you think the energy industry cares about the environment? Exxon STILL has not paid in full for their spill in

Alaska. The spill in the gulf has been stalled and we will see how many generations that will hold onto cash that should have been paid to fix / clean the problem. Now fracking has been in high gear for 5 years and the number of people who have been poisoned by pollution from fracking operations in on the rise. The industry first focused on more remote areas but now are moving into more populated regions. The uninformed claim how can pollution from 5000ft underground pollute water that is 500 ft down??? Well this is just insane! The same reason how cities above the NY water pipelines (that are leaking) have water bubbling out of the ground. Pressure and time are the factor. In time the chemicals will kill and the industry will stall by hiring lawyers to fight justice. Just as PG&E told families in California that Chromium6 is GOOD for them??? Never trust the fox to guard the hen house! But it is too late. The damage is done and thousands of "Love Canals" are percolating. The small drilling companies will go bankrupt and the people will die a slow painful death who consumed their "clean" well water. Tick tock, the clock is running... How long for the real truth???

#### <u>10</u>.

Pickard Trepess Nagykanizsa, Hungary June 27th, 2011 7:28 am Sirs,

This article seems to be a lot of hot air, designed to say anything, just to get something in print...

Sure people are going to write emails - some are going to doubt the economics of any activity - and they are right to do so, but to lump these together and suggest that Shale Gas Exploration is not ecconomic, is putting them all out of the context they were written in.

Oil companies know well the economics of their activities, and as presentations on worldwide shale conferences will show, the risks and costs are well distributed for anyone to hear. However few will understand, when the subject is complex, and outside the realm of the 3"R"s taught in school.

I've been in the oil industry over 30 years, and designed, performed and analysed my first frac treatment in 1979. We study the economics and candidates very carefully.

Now over 2 million frac treatments have been performed in shales alone, so we have a wealth of experience (and no provable incidences of causing earthquakes, leaking gas into aquifers etc. etc.)

Sure we are in a "Gold Rush" scenario, and anywhere that there are profits to be made, there are going to people that invest unwisely, in the hope of making a fortune - some will go bust, others will profit hansomely. However this is not 'NEWS"!

# <u>11</u>.

JMFulton, Jr

Stockbridge, MA June 27th, 2011

7:28 am

Sorry, but all of this fuss and bluster sounds like people just want to verify various industry claims of capacity and supply, yes?

Okay, fair enough. Let's check the figures, facts and assumptions. And, maybe leave the intimations of skull duggery and sly dealing at the door.

#### <u>12</u>.

#### <u>johnwerneken</u>

usa

June 27th, 2011

7:28 am

You old female dogs will bark at anything not bringing your your media chow bowl. Apparently some drilling of some shales is producing some useful gas; enough said.

#### <u>13</u>.

rturkington

Virginia

June 27th, 2011

7:28 am

Unless and until processes are put in place to protect the lands, waterways, people and animals around these areas they wish to drill in, and unless and until we make darn sure that somebody getting rich doesnt become the main reason for drilling rather than the desperate need for more sustainable energy..we are just setting ourselves up for more of what we already have; why in the name of all thats sane can't people see that?

#### 14.

fbrett

Tulsa

June 27th, 2011

7:29 am

Shale gas (and the price paid for lease bonuses, royalties etc) is - Duh - a complete function of price. At \$7/mcf (or even much less) it's certainly a 'good idea'. At \$3.5/mcf (or perhaps more) it has 'no future'.

The gas is there. It can be produced for years and years (10 or 50 doesn't matter at the right price). \$7/mcf equates to ~\$35/bbl.

The answer is to burn it in cars and trucks.

#### 15.

HIGHLIGHT (What's this?)

Nick Grealy

London

June 27th, 2011

7:41 am

Not EVERYONE believes: Exactly, as in any financial, economic or geologic policy debate, there are differences of opinion, but does that mean that simply because some exist they are proof of plot, or scam or deliberate effort to either defraud investors and/or pull the wool over they eyes of the American people? 100% consensus doesn't exist anywhere.

Last year there were multi-billion investments in shale by international companies: PetroChina, Sinopec, Reliance and Gail from India, Japan's Mitsui, SASOL from South Africa, ENI from Italy etc. I find it unlikely that all the companies or their bankers, performed shoddy due diligence and

didn't uncover any of these alleged smoking guns

Today's report is no shale wiki leaks either. As usual, much of the information is fairly old, and we can only guess at what was left in the rest of the context that wasn't published as it didn't support Ian U's agenda. (Yes, shock horror he probably has one too!)

Shale is so new and came out of left field so suddenly that inevitably people looked the gift horse in the mouth, I certainly did. That is one of the great things about it: Conventional wisdom and all those "experts" proved wrong. Is there any wonder there is some pushback?

Shale completely disrupts all energy actors: renewables to some extent, but dirty coal far more, while nuclear is an industry knocked dead by shale. Russia of course, is truly worried. So there are some people who perform full scale orthodontic surgery on the gift horse, not from legitimate concerns but out of fear for their investments. Coal, nuclear and renewables are all losing big markets or big subsidy or both thanks to shale. It would be objective of the Times to dig in the emails of the coal, nuclear and renewable industries. Needn't even go that far:There's plenty publicly available instances of Gazprom talking up depletion of shale, just as it discovered a green streak in highlighting any environmental bumps as proof of disaster.

#### 16.

Scott Pgh, PA

June 27th, 2011

7:42 am

I wonder if you would think the same thing if these wells were in your backyard and your children had to drink the contaminated water when the private sector screws up. Oh wait, they NEVER screw up, with your thinking all the best and the brightest work in the private sector. Is that the same private sector that caused Enron's collapse, the oil rig in the Gulf to explode; how about the great banking scandal of 2008? Didn't that last one cause the entire global economy to tank? Yeah the private sector always gets it right, they employ our best and brightest - maybe our best at creating profit without concern for the people of this country and our air/water we need to live.

# 17. rudyguy4

bonn

June 27th, 2011

7:42 am

What a looming analysis! Citing people who are so much scared about publicity that they do not allow to talk openly. I wonder why the NYTimes did not advocate renewables directly taking position in a fight between rivaling industries.

#### 18.

Paul Cohen Hartford, CT June 27th, 2011 7:42 am

I'm tired of our government's energy policy being shaped and directed by the industry itself. Where is Vice President Dick Cheney when you need him most?

J Connors

Durham

June 27th, 2011

7:42 am

There's no government agency that doesn't depend on data from industry.

You can have independent analysis, but there's no such thing as independent data, except in the case where a specific tax is collected which you can count.

It's quite misleading to suggest to your readers that "independent" sources of data exist, but that a government agency refuses to use them.

#### 20.

HIGHLIGHT (What's this?)

K Henderson

NYC

June 27th, 2011

7:43 am

Anything this large-scale that endangers the very ground water that we all drink from should not proceed. It is going to happen though, because there's a money pushing it to happen.

A few years down the road, there will be a big news event of some water-poisoning to small kids in a town somewhere in the USA. Then and only then everyone will say "no" to fracking.

Its a shame because it should be really plainly obvious that fracking is a phenomenally bad idea as long as it sends chemicals (and lots of them) into our water tables.

I should also mention that anyone with money wont live anywhere near where fracking is done. Property values will go done and the wealthy will leave. So towns that allow fracking should really think twice. I am genuinely concerned for upstate New York, which seems ripe for fracking exploitation.

#### 21.

WayneDoc Wayne, ME June 27th, 2011

7:43 am

When the energy companies' primary income shifts from sale of product (gas) to selling leases (land), as pointed out in yesterday's article, it maybe time for investors to jump ship.

Next they will bundle the leases, get them rated AAA by Moody's and Standard and Poors, separate the income earning potential from real estate value, etc. etc. and market them through Wall street to pension funds. Sign me up.

#### <u>22</u>.

#### **Patriotson**

Florida

June 27th, 2011

7:44 am

With an abundance of natural gas, we await to see it, like coal and oil being shut down by Obama and the radical environmental terrorist who are holding our natural resources hostage to their agenda.

The one thing Obama does not want to see on American soil is an abundance of any domestic energy source. Coal mining has been all but shut down by the EPA, a fourth arm of government by Obama, and enabled to bypass congress on its regulatory controls and laws on environment. So just wait and see. Fracturing is under attack by the do not drill bunch and so America sits on hundreds of years worth of fuel and no one can get to it. Preservation is for what? To hold down the people and create higher costs for subsistance and food.

#### 23.

frank providence, ri June 27th, 2011

7:44 am

This article is kind of about nothing except repeating itself. More background is needed. Say, how much monster wells produce? How many dry wells have there been? What are any environmental concerns? What are the "costs?" Etc. I don't know anything about any of this and the article provides no background to assess why the agency is concerned, even unofficially, if this even is the case.

#### 24.

Alastair Altham London, UK June 27th, 2011 7:45 am

At last, we are waking up to the risks of a bubble in the shale gas market. We are now seeing the emergence of new 'game changing' shale gas plays in Europe too. Over here though, the economic game changer is built around the 'proven' technology and economic models from the USA - something I worry European regulators are also taking as 'read'.

As a geologist working in the investment business, who also happens to own a slate mine (slate being metamorphosed shale), I guess I should know at least something of the issues here.

- 1. Geology. Porosity and the liquid components contained in shale formations will vary hugely from one location to the next. Shale is generally low in porosity and (in lay terms) the quicker the small spaces in the formation become clogged up again as the gas a liquids start to flow in the production phase, the quicker the need to re-frac the drill holes.
- 2. Economics. Fracing is remarkably expensive. Depending on the shale formation(particularly the case in respect of the Barnet Shale), it is likely that the need to re-frac is much much higher than the optimists had hoped. Combine this with a very low natural gas price and the potential for huge global supply and the economics start to look dubious, at best.
- 3. Environmental issues. Not raised in the recent NY Times articles to the extent needed, but be aware of the heavy isotopes contained in many shale gas reservoirs. We really need to ask whether drilling for such gases in urban areas is appropriate to public health.
- 4. Regulatory Issues. If the regulatory bodies are too close to the industries they police,

complacency will come to the fore. Given the environment issues, carpeting Fort Worth and Dallas with new wells inside the metropolitan area has to be a worry. Look out for the litigation! 'A Ponzi scheme'? I'm not sure yet..'irrational exuberance' and regulatory complacency? Yes, certainly. And am I investing in shale gas? On the contrary, it looks like a long term 'short'.

#### 25.

HIGHLIGHT (What's this?) Lionel G. Beijing, China June 27th, 2011 7:46 am

None of this surprises me. People will say anything when money is to be made, and the energy industry is notorious for bending the truth. (See the recent Wall Street Journal story on fracking, which paints the usual rosy picture that industry has always projected.) We've heard it all before: Nuclear energy will be too cheap to meter. All the tankers sailing out of Valdez will have double hulls. Nuclear energy has a long history of safe operation. (Now we learn that all the U.S. reactors are leaking tritium.) Global oil production will not peak in our lifetime. (It peaked in 2006.) Enough.

Why in the world would any sane person believe any optimistic statement from an energy company?

#### 26.

Spike Haible Harpswell, ME June 27th, 2011 7:46 am

Mr. Johnson obviiously dismisses anything that goes against the industry's picture of itself. Seems like EIA analysts are properly, if hesitantly, doing their job looking behind the curtain---good for them! I'm disappointed, however, that not a word is mentioned about "fracking" and its effects on environment; groundwater, wells, streams. Just look at NYT picture attached to article--a well right behind a house! Growing pile of evidence suggests this rush to natural gas is having serious consequences that we need to look at. EIA needs to talk more about this, and EPA, DOE need to get involved t more closely. I like the potential of natural gas but not the consequences. You'd think we're mature enough as a society to factor environmental costs equally into our energy search equation.

#### 27.

KraftPaper USA June 27th, 2011 7:46 am

We're led around by our nose by energy companies quick for a profit. Historically they leave behind a mess for the EPA and get pols to hammer taxpayers with the bill. Anytime there's a call to move on with renewable energy like wind turbines they cry help and play everyone for subsidies. If they are allowed to continue to lead America into war they will be our downfall. Lump the coal with the Depression Era farm subsidies and you have the answer to just what entitlements are causing the greatest deficit. Any talk of wind turbines gets you in trouble in DC. Shale? The largest segment of Marcellus was just sold off because of the difficulty in producing it and making a profit. Do we really need another coal industry tearing our hillsides. Even tiny Israel discovered a major find of

natural gas. I'm sure Dick Cheney and Haliburton, Schlumberger and RIG can find it elsewhere without damaging our water system. End corporate tax breaks and we'll see just how quickly the deficit is solved and CEO's can get off their Lazy recliners and try to make the profit they are paid tens of millions to make for their rich shareholders.

#### 28.

**RBT** 

Rensselaerville

June 27th, 2011

7:46 am

Since the EIA's publishing is questionable, let's shut it down. Another useless Administration in Washington that needs to be shuttered.

#### 29.

Steve

Pennsylvania

June 27th, 2011

7:46 am

Don't care if most gas companies go bankrupt. I favor fracking. I want as much gas pulled from the ground as possible and I want government to ensure that proper procedures are followed.

If 90 companies see an opportunity and chase those dreams, that's great. If 20 years from now only five of them survive, who cares? (Government should stay out of the inevitable consolidation, even making sure the tax code does not subsidize purchases of companies.)

#### <u>30</u>.

Dave

Auburn, NY

June 27th, 2011

7:47 am

There is nothing in this piece about the danger "fracking" may pose to local water supplies. This is by far my greatest concern.

#### 31. Y2K

PA

June 27th, 2011

7:50 am

Most of the commenters are forgetting one thing. Those that extract this gas will sell it to the highest bidder. Even if this gas is located in the United States, it may not eventually end up in the U.S. It may very well be liquified and shipped offshore. Multinational energy companies have no obligation to the United States and could care less where the gas is sold, as long as the highest profit is obtained. Doubt that? See

http://online.wsj.com/article/SB1000142405274870475680457560886425456496...

#### <u>32</u>.

Luke Miami, FL June 27th, 2011 8:00 am

this was a very interesting article with very substantive arguments in some ways. but in some ways i don't think im convinced by the thesis i think the author was pushing. ok shale oil drilling is popular. people say its gonna be big. except the eia which gives estimates on energy issues is too close to industry and this may effect their assessment. ok...... well i would be more interested in knowing whether the author is able to get a concensus opinion on the prospects of shale nat. gas and what the outlook is. also what are benchmarks coming up and whats the status of them regarding the future of nat. gas. how will readers be able to decipher whether shale oil is progressing or not????? i have more questions than answers after this article. and alot of circumstancial conjecture in between. i do appreciate the effort though. in the ballpark of being meaty but lacking one or two components. but still thanks for the rigor that did exist in this and i hope in the future we will get more substantive articles from wash post....

#### 33.

#### unreceivedogma

New York City, NY June 27th, 2011 8:00 am

During a Q+A after a Deborah Rogers (a committee member at the Federal Reserve Bank of Dallas) presentation at an OGAP conference in Pittsburgh last fall, I pointed out that leases were being bundled, securitized and sold in PA in ways reminiscent of the mortgage debacle that triggered the Wall Street collapse, and that it may make more sense to think of the shale gas industry as being as much or more about real estate speculation than about gas production.

If one could think of mortgage securitization as coming about because there was too much capital in international markets relative to the real, productive economy, without meaningful places to invest.. well, that capital is still out there looking for the next place to go. Shale gas is trying to become that next place, and the e-mail about duping Wall Street fits neatly into this way of thinking.

The energy industry, being capital intensive overall, itself is subject to varying degrees of speculation: witness the oil bubble of a couple summers ago. So, during Q+A, I asked Ms Rogers what percentage of GDP does the real estate industry and the energy sector each take up, are they comparable in scale, and is there a way of measuring their overlap and what is that percentage? Is their a way of measuring and separating out the productive (fuel products) from the non-productive (capital speculation) sectors of of the energy sector? All as a way of getting at the question of whether a speculative bubble in energy could trigger another collapse of similar proportions.

Ms Rogers did not have answers to these questions but promised a response by e-mail. I am still waiting.

# PlutocracyInAction

PHX, AZ June 27th, 2011

8:10 am

Achieving energy security through fracking is equivalent to achieving full employment through sweat shops. I wonder if all the natural gas cheer leaders posting are this enthusiastic when there is an article about the potentials of renewable energy?

Pictures are worth a thousands words, this should speak volumes: http://www.youtube.com/watch?v=qYJj-1jNOxE

#### <u>35</u>.

Helen Ithaca, NY June 27th, 2011

8:10 am

The essence of (federal) securities laws is disclosure. At the federal level the law doesn't get involved in opining as to what is or is not a good or foolish investment, but it does require that full and complete disclosure be made to prospective and existing investors. That is why when you read a prospectus there is a laundry list of 'Risk Factors' -everything that could conceivably go wrong with the company's product, business plan, and even the overall world economy. The lawyers—not the business people/clients—make the call on what does and does not have to go into the Risk Factors section, and how to say it. The gasco securities filings already address the issue of accuracy of reserves predictions, but these articles should result in those descriptions taking on a different (more substantive) flavor. And most lawyers are careful about not letting corporate spokespeople say things that fly in the face of what is in the risk factors section.

Deborah Rogers has been talking about the reserves being a shell game for sometime now, but given the increased visibility (and credibility, in the eyes of many) of this piece, my guess is that going forward you'll see far fewer public statements such as Cabot made to the AP folks. Similarly, the broker/dealer people who move gasco paper around are also on (legal) notice now to be more careful about what they (do not) say to clients about reserves and the value of reserves, and the inhouse people who make the decisions about what to buy will (if they have a grain of sense) be much more thoughtful before they jump or stay in. Some of the big institutional guys were already getting nervous about safety-related disclosures (affecting share price); nature and value of reserves is a much more fundamental question for money managers...

It'll be interesting to see what happens to this sector when the market opens today: will people be shorting them, buying on dips, or what?

#### <u>36</u>.

Steve Bolger New York, NY June 27th, 2011 8:15 am

From here on in, petroleum and natural gas production will require an ever greater percentage of the fossil energy underground to create and produce the wells.

Jporcelli

Ft Greene, brooklyn

June 27th, 2011

8:15 am

Websites like <u>energybulletin.net</u> and <u>theoildrum.com</u> have long been talking about this by using empirical evidence associated with the practice.

These gas "plays" are often used to boost reserves held by a company to boost its market value, even though the cost associated extracted them is exorbidantly higher than easier to access gas.

Its like saying I have a million dollars in pennies I want to spend.

#### 38.

Colpow

New York

June 27th, 2011

8:15 am

Please, people. There is enough wind and sun energy out there. Let's give the subsidies to those industries and stop poking holes in the earth.

#### <u>39</u>.

Tom

Morristown

June 27th, 2011

8:20 am

There is a political element in this country that's terrified by the thought that we might have a supply of clean, abundant and low cost energy. The very idea is a threat to an agenda that relies on fear of scarcity and central rationing. Like most emerging energy forms, e.g. wind and solar farms, shale gas was lauded by the Left back when it was only a pipe dream. Now that it's quickly become reality, it becomes a foe to be battled on every front.

#### 40.

Joseph-Ohio

Parma

June 27th, 2011

8:35 am

If the cost of extraction is prohibiting our energy independence it makes sense to correct it. The price should correct itself by 'free market pressure' (ha - ha - ha 'free market pressure').

Better for me to think and write about it in terms of outright government intervention / subsidy.

A BTU (British Thermal Unit) is a measure of pure energy.

It seems to me that the cost of a BTU should be the same no matter where it's origin (nuclear, coal, natural gas, oil, hydrogen, whatever).

The cost of electricity should be more per BTU / Kw because it is always a product of a fuel.

Based on 'TRUE free market' principals, the cost of fuel and/or electricity should not vary depending upon quantity of purchase or use. This is not the way it is however. Large industrial and commercial purchasers / users of electricity (for instance) pay much less per Kw than individual consumers / families because they purchase / consume so much of it.

Considering all of the manipulation going on these days (between bailouts, interest rates, etc., etc., etc.) the manipulation of energy extraction costs should not be an issue - especially when our energy independence is at stake.

Pay the realistic cost to extract and the price will simply rise - just like always.

#### 41.

Lucky Lieberman Miami Beach, Florida June 27th, 2011 8:40 am

In the expose by Rolling Stones Magazine on "Fracking," (A new drilling technology risky to human health and the environment,) the damage to our nations water supply is catastrophic. Is this of no concern? You say there is no conflict of interest in a government agency that relies on information supplied almost exclusively by the industry that they are responsible to report "honestly" about, how stupid and lazy do they think Amercian citizens are?

Well, they don't think, they know that human beings are the dumbest and the laziest animal on the planet, and we Americans are on top of that list. I base this on looking at my country and saying, "what the heck did we allow to happen in America?"

# 42. Guy Thompto Cedarburg, WI June 27th, 2011

S:45 am

"As a result, it has not received the same level of scrutiny, according to some environmentalists and energy economists."

The Left has been caught unprepared to deal with the latest threat to their dream of controlling the public through control of the mechanisms that the public depends upon. The Left fervently believed that they could kill exploration for oil in this country and ultimately make energy consumption too expensive to have private or semi-private capitalist industry provide this basic need. Their hope was to be the ultimate purveyor of energy, allowing the poor to have subsidized access, and the rest of the public to live on a strictly controlled quota of energy credits.

But those rascally capitalists - you know, the ones who actually do the work - fowled up the Lefties game plan. Now with gas production seemingly ready to take off in this country, the Left is dreaming up new imaginary threats that gas will expose the citizenry to.

You have already seen some of the Lefts' attempts to slow this industry. New "threats" caused by chemicals used in the fracking of rock to release gas have been "discovered". New legislation cannot be far behind. Perhaps the Lefts' last two bastions of power - the courts and the EPA - may

have to rush in to halt this newly percieved evil less it frees Americans to once again start to gain energy independence.

#### 43.

#### Tom Evslin

Stowe, Vermont June 27th, 2011 8:50 am

The energy companies are spending billions of their own dollars to develop natural gas. You don't need a government agency to tell you that means they believe that it is there and has an economic future. If they were waiting for government grants before investing- like most of the renewables industry, for example - then you might wonder whether they really believed.

The price of natural gas has fallen more than 50% and is way below parity with oil on an energy basis. That tells you about its relative abundance, again without reference to any government agency or even industry analyst. If the price decline were caused by the recession, it would've rebounded like oil did: it didn't.

A natural gas bubble and irrational enthusiasm are a good thing. They mean that money is going into keeping natural gas cheap for a long time to come to the benefit of our whole economy. Some people will pay too much for natural gas investments and will lose money; welcome to a free market. Others will make money.

Of course EIA reports may matter to government policy (politics matters more). But that's simple, too. The government should NOT create incentives for natural gas; if it is economical, it is it's own incentive (as it appears to be). If it is not, that it shouldn't be used. The incentives on other energy sources should be removed starting with corny ethanol.

http://blog.tomevslin.com/2011/06/great-news-theres-a-natural-gas-bubble...

#### 44.

Art Vatsky Teaneck, NJ June 27th, 2011 8:55 am

One hundred years ago, this would be like the horse industry introducing a new breed of horse to counter the switch to petroleum powered cars. It's still a horse with a horse's emissions problems. Fossil fuels are simply no longer as preferable as most renewable fuels. Shale gas still creates greenhouse gas. Besides existing wells, the next best source of methane is recovered landfill gas. Then there is leakage elimination throughout the distribution system. Remember, methane is odorless until an odorant is added close to its final destination. Let's value efficiency, conservation and risk reduction as the fossil fuel industry accepts its new role in the energy hierarchy of the US in the 21st century.

#### 45.

HIGHLIGHT (What's this?) Idanut9 Rocky Mtns. June 27th, 2011 9:00 am

What good is natural gas to any of us if we contaminate our drinking water? I don't hear of any guarantees to the people living around wells that these speculators will provide everyone with clean water in perpetuity if those corporations contaminate drinking water with fracking chemicals. If fracking is to go forward, such guarantees must be part of every contract. Any corporation destroying a towns water wells or ground water should lose any other mineral leases that they hold and shut down their business. We don't need any more irresponsible corporations in this country. We have plenty already.

#### 46.

# T. Goodridge

Maine

June 27th, 2011

9:05 am

It would be typical for us to begin digging natural gas wells and think about the drinking water tomorrow. Here it is 50+ years since the first nuclear power plants were built and we still have no solution for disposing of the spent fuel rods, radioactive for 10,000 years. We sweep them under the rug and continue to promote more plants because the power is affordable, and that trumps the long-term health and safety of the planet. Foresight seems to be a thing of the past.

#### 47.

bob b rochester,ny

June 27th, 2011

9:10 am

Natural gas is a great energy source but there is a good possibility that the lifespan of an average fracked well will be much shorter than expected. It looks like we may be setting the utility industry up for a fall, after converting so many powerplants from coal to gas. As an investor I would avoid lease speculation.

# <u>48</u>.

Somebody Somewhere

June 27th, 2011

9:10 am

Back in college I drove a fork lift during the summer months. At the start of each 12 hour shift (thats right and no overtime for seasonal work) I would put on a fresh propane tank and run the fork lift continously never shutting it off. I think today something equivalent can be done with natural gas at least for our cars. I understand the pollution problem. It still would be cheaper than an expensive foreign policy to guarantee our share of oil. Want cheap BBQ. Find a place that will fill the propane tank. It will be 1/3 the price of an exchange.

chiker Catskills NY June 27th, 2011 9:30 am

Natural Gas has its good points and its bad points like everything else. It is relatively clean BURNING, is in this country and recoverable. It Does produce green house gases, use oxygen that can then no longer be breathed and pollute ground Water in its recovery.

Remember also that it is a finite source of energy and will eventually no longer be available.

Where is the research into alternate practical sources of energy? Where is the research into alternate practical sources of portable power? (Think the internal combustion engine)

Not all research will be successful and much will be derided by the usual group that cannot DO but can always criticize and find fault.

Until real research is done to create new practical sources of energy, capable of supplying the quantities of energy we consume, in the forms we we require, we will still live in a world that is Lighted by Fire.

#### <u>50</u>.

Deb Hoffmann Zurich June 27th, 2011 9:35 am

After having seen a documentary on what Alberta Canada has done to the ecology with their huge shale oil and gas refineries, I do not consider this a serious alternative to anything. If people had experienced the Athabaska River as I did in the early 60s...A pure clear beautiful river where every colorful stone and fish was visible, today it is a horrible sight and ecologist as well of course as the Indians doubt that the mess can ever be cleaned up.

#### **5**1.

B.Smith Oreland, PA June 27th, 2011 9:40 am

It's very interesting to note that the further away from shale drilling and the probable endangerment of the water supply the more supportive of "fracking" of natural gas from the shale the comments become. Whoever said no rich person will live anywhere near this is absolutely correct. And we continue to race toward being a third world country with no middle class.

C. Featherton Morgantown, WV June 27th, 2011 9:40 am

What a follow up to the last article which just further legitimizes the fact that this natural gas industry is a large ponzi scheme. So the drilling companies know that they can't be profitable, the whole operation is an illusion, but they spin and lie in an Enronesque fashion so investors, and now as we see, the government keeps throwing money in the kitty. Just like Enron they just want to survive as long as possible hoping that they can just keep up their charade before someone brushes the curtain back to see the emptiness behind it.

The EIA is a joke, no good research can come from people or companies that essentially regurgitate the falsities of repeatedly proven to be immoral institutions like the drilling companies. When you flat out lie so many times as the drillers do, and there are massive quantities of evidence of that, you are a fool and simply inept and ineffectual. If this EIA is to continue to exist they need to reorganize themselves into a legitimate independent group that serves a useful role of providing credible information to the state and investors. You can see that people inside the EIA itself feel their own ridiculous uselessness, they themselves question the cogency and integrity of the information that they base their own findings on. We should be thankful for those people who see that, they realize the danger of joining an altogether ominous chorus.

#### <u>53</u>.

Steve Bolger New York, NY June 27th, 2011 9:45 am

Yes, I think they should show the new Alberta Sand Dunes in that sappy coomercial they run incessantly on CNN to keep it opiated for the petroleum industry. That's part of what they refer to when they say 2/3 of our petroleum comes from North America. Just home in on northern Alberta through Google Earth and take in the vast scale of devastation for yourself.

#### <u>54</u>.

DAP NYC June 27th, 2011 9:50 am

Regardless of what EIA employees have to say in their emails, if the energy companies didn't think there was an abundant supply of natural gas, why would they be spending so much money developing the sites? Obviously the people who know the most (the people spending the money drilling) disagree with the relatively ignorant who stand on the sidelines casting stones.

#### <u>55</u>.

Phil B. Brooklyn, NY June 27th, 2011 9:55 am

I guess the few crank geologists quoted in this article must be correct whereas the legions of geologists at the scores of companies that have invested billions of dollars in shale gas (very recently) are all wrong. We're talking about geologists from, Exxon, Total, CNOOC, Conoco, BBG, HP, BP, etc. It doesn't matter what the EIA says, follow the money. Sure, some of the shale hype may be overblown and certainly some will be uneconomic at low gas prices, but record US natural gas production and low natural gas prices along with these investments should lead any rational person to conclude that the conclusions drawn in this article, that shale gas is underperforming, are mistaken. This article is a clear example of starting with an agenda (anti-gas) and finding facts to fit the conclusion. The NY Times seems to be pursuing this course against the natural gas industry in all of its articles on the subject. At this time there is no better alternative to reduce our energy dependency on dirty coal and oil and dangerous nuclear power. What, pray tell, is the energy strategy that the NY Times advocates? Wind and solar will always be marginal producers and are not baseload reliable for power generation. Natural gas can be used for both power generation AND transportation. There is no 100% failsafe energy solution from a safety/environmental perspective (no industrial process is). The NY Times should be ashamed of this article and its general campaign against natural gas.

#### 56.

HIGHLIGHT (What's this?) captjack32000 new york
June 27th, 2011
10:05 am

What this country needs is a Manhattan Project-like commitment to solar energy. I am convinced that if the amount of \$\$ spent on nuclear reactors and/or oil exploration both onshore and offshore as well as searches for fields of nat. gas were spent on the economical development of solar energy we would find that every building constructed would have solar energy capability as would every car, truck, bus, etc. There is no doubt that with proper incentives and financing we will develop miniturization of solar cells, just as we did with transistors to mini micro chips, as well as their strength. Fossil fuels will be used for auxillary purposes. I'm looking at the Citicorp center, bathed in sunlight. The aluminum cladding should be solar panels. We could be totally free from dependence on foreign oil etc. Science and technology should be able to develop ways to economically harness the power of our most renewable resource, the sun. We just need the proper focus and financial incentives.

#### 57.

MP New York June 27th, 2011 10:05 am

Watch the documentary movie "Gas Land" if you want to see the potential problems that drilling in Shale can produce. This is a scary issue because everyone is looking for a cheaper alternative to oil, and Natural Gas can be cheaper and cleaner. There is a very scary down side though, we get clean cheap fuel but destroy the drinking water supply that we rely on. This is something that needs to be

looked into but very carefully and the people who drill for this natural gas need to be watched closely, this issue scares me a lot!!

#### 58.

#### BlueMoose

Binghamton NY June 27th, 2011

10:15 am

A story in this morning's Binghamton newspaper touted how Marcellus Shale gas was more plentiful than thought and that wells in northeast Pennsylvania were setting production records. Interestingly that article was not under a local byline but was written by Michael Rubinkam for the Associated Press. Mr. Rubinkam is a long-time shill for the gas industry. Someone really should report on how the industry is manipulating the press to spread lies about their environmental record and to surpress the fact that the gas being produced is going into storage or being exported.

#### 59.

Alan Sheets San Francisco June 27th, 2011 10:30 am

It is amazing to me that the Energy Information Administration does not seem to be condsidering the huge potentially disastrous environmental consequences of the fracking process that is used to extract the natural gas.

#### <u>60</u>.

JaneM Central Massachusetts June 27th, 2011 10:35 am

Let's not make the same mistake we made with Ethanol, doling out millions in subsidy for a pig in a poke, and look at what's happened to corn prices.

Before we sell off all our land rights and destroy our water, let's require an enormous environmental study to determine what's really happened with the existing wells.

#### 61.

Josh Cabell Watertown, NY June 27th, 2011 10:40 am

All the commenters here who are pigheadedly missing the article's entire point are going to feel awfully stupid once the shale bubble does indeed burst. Some of these comments remind me of the reader comments attacking Paul Krugman's columns about 6 years ago, when he was giving every warning he possibly could that the housing bubble was about to burst.

When a reporter/researcher has a sense that a bubble is going to burst, sometimes the evidence doesn't come in the form of a neat, symmetrical mathematical proof and/or on-the-record quotes. I would say the circumstantial evidence that shale gas has indeed been mis-reporting its finds, and that a bubble bursting is looming, is very compelling indeed.

<u>62</u>.

Joe

NC

June 27th, 2011

10:45 am

When we see comments on this topic like "Two recent gushers in the Marcellus Shale natural gas field illustrate the potential of the new finds," we know how little public understands natural gas.

To the OP, there are no natural gas "gushers."

In its original form, natural gas is colorless and odorless.

It is a vapor - it is \*not\* a liquid.

It is primarily made up of methane.

I agree that we're in a "gold rush" phase for natural gas, but people have no idea what they're getting into with this.

'Fracking' to release this substance is too dangerous for the small benefit. Also, natural gas wells steadily decline in output rather than levelling off like oil wells. Diminshing returns all around.

# <u>63</u>.

truth

Woodbridge NJ

June 27th, 2011

10:50 am

Americans want the lights to come on when they flip the switch, for there to be gasoline at an affordable price and to stay warm in the winter and cool in the summer. It is not possible to do this without costs to the environment and the public health. It's that simple. Visions of 'clean energy' are a chimera, it won't happen. We made a start a few years ago on making energy use more efficient, now we are going to have learn to live with less. We ignore these realities at our own peril.

# <u>64</u>.

**Dave** 

SC

June 27th, 2011

10:50 am

We are at a critical juncture with regard to energy sources. We need to get this right. If natural gas from hydraulic fracturing is dubious, greater emphasis should be given to nuclear energy. Modern nuclear power plants can be built in geologically stable regions and can provide electricity for our electric cars while contributing very little to climate change. Renewable energy sources such as solar and wind can also play important roles. Let's not skew economic decisions based on false prospects for natural gas.

James Chicago, IL June 27th, 2011

11:15 am

Since the 1973 oil embargo, every president has discussed the need to reduce our dependence on foreign oil and develop a comprehensive energy plan for the future. Almost 40 years later, where are we? Not even close.

Congress and presidential administrations are so inept on energy policy they can barely accomplish anything. Congress just recently voted to stop subsidies for (as the NY Times put it) the corn con. Ethanol is a bust so huge it dwarfs the imagination yet few speak out for fear of losing the Iowa caucuses. It took 20 years to stop the corporate welfare for the sacred cow because of Big Farm lobbying groups.

Just mindlessly bashing energy companies is counter productive when you turn right around and vote for politicians who take money from lobbying groups. Start holding our elected officials accountable or 40 years from now we will still be having the same debate.

# 66.

H2 Nite Out Oregon June 27th, 2011 11:15 am Mr. Urbina:

Thanks for writing the article about concerns with long term natural gas production.

Dr. M. King Hubbert included an interesting concept in determining his future oil reserve projections in the "Hubbert's Peak (Peak Oil Production) theory. This is explained in the book Hubbert's Peak by Kenneth Deffeyes.

Because of the tendency of fossil fuel producers to overinflate their future projections (to get more private and governmental financial support for fossil fuel development), Hubbert developed his long term fossil fuel production projections by only including the next years known reserves. By doing so he eliminated the hype so ingrained in the discussion following your article.

We all want to believe that we will have a future of unlimited energy production. Fossil fuels have been wonderful for our economic and society development, even taking into account the Exxon Valdez, BP Gulf issue, etc...

If the future of natural gas is so certain in the eyes of its producers, let investment in it come from the private sector and environmentally sound access to public lands, not in the form of tax deductions / credits and grants from the government. Use government funding for renewable energy projects, whose energy output is consistent over a long period of time.

I believe future generations will thank us for it.

JP Maceda Brooklyn, NY June 27th. 2011

11:15 am

This shale gas has been know about for decades. The development of horizontal drilling has made this frenzy possible. However:

1 the cost of an average gas well has gone up by a factor of 10 in the last decade,

2 the useful life of a traditional gas well was 10-15 years,

3 the only published production data (a very small amount until now) has shown 60%-75% decline in production in Year 1, and,

4 every shale E&P company seems to be for sale.

When insiders are selling, isn't it the top of the market?

Also, a thought experiment that illustrates my problem with believing in the hype; take 2 bottles of seltzer and put one in the freezer and the other on the windowsill. Wait one day. Remove the bottle from the freezer. Shake both bottles. Remove the caps and see which one releases the gas.

#### 68.

# Ken Handler

Highland Park, IL June 27th, 2011

11:20 am

Natural gas has the potential to provide a solution to the divide separating the Western democracies from the Middle East "Crude Oil" cartel. Surface transportation worldwide is powered by the internal combustion engine fueled by crude oil and/or natural gas. The "western world" has ample natural gas to power our surface vehicles (and our industrial use) substantial reduction of the expense of dealing with the crude oil cartel, we must stop the dleay and start to use natural gas power.

# 69.

Still waiting for a NBA title in SLC SLC, Utah June 27th, 2011 11:35 am

@#2 - In Utah, we have natural gas filling stations all along the I-15 corridor and along the Wasatch Front (which is the major population belt in Utah). Also there are many local companies that will convert your car to run on natural gas alone or natural gas and gasoline. Though the conversions still remain pricey.

Jordan New York, NY June 27th, 2011

11:45 am

I completely don't understand the double-talk made by many critics here. If fracking is a scam and the amount of shale gas is significantly less than many drillers expect, then why is the price of natgas at \$4.50 per million BTU or near lows for the past five years? If these capitalist oil companies only care about maximizing profit, why are they drilling wells that are certain to lose money? It's not just the current price of natgas that is at \$4.50, go out a few years and the price is still near historic lows. It's nice to say natgas is the next Enron but the facts don't support these claims. My position is the U.S. needs an alternative to oil. And natgas is the only realistic near-term solution. But I do have concerns about the chemicals used in fracking. My solution to that is to have the drillers pay a tax of \$0.05 per million BTUs to pay for monitoring and remediation if something goes wrong. Fully disclosing the chemicals used in fracking would also be advised. The industry should voluntarily adopt these measures in order to allay the fears many have and move drilling forward.

#### 71.

Clyde Wynant Pittsburgh, PA June 27th, 2011 12:05 pm

The one resounding truth about the energy industries is that they can invent the "truth" about overall supplies, be it oil, coal or methane, and there is almost no way to counter their assertions. Put more plainly, our entire modern civilization, which runs on gas and oil, is in their hands. If you think governments run things, think again.

# 72. Anne

Brooklyn

June 27th, 2011

12:10 pm

How about we exchange the drinking water for people near the drilling sites with the drinking water for gas/oil industry executives, offices, and all their families (no botled water imports allowed). And, store the sludge from fracking in their neighborhoods. When they agree the rest of us can stop worrying!

Till then, I'm beginning to think the rallying call "Too big to fail" doesn't apply to us as a country! Then, I found, according to CIA Worldbook data, it does:

Out of 34 countries, the U.S. ranked 14th in reading, 17th in science and 25th in math, CIA Worldbook site shows we're #43 in public expenditure on education as a percent of GDP, yet # 24 in military spending. We're neck to neck with Egypt in unemployment rates, #142 in business spending on fixed assets for future production, #39 (or 4 better than Rwanda) in the distribution of family income, #35 in inflation (2x the rate in Cuba), #176 of 222 in infant mortality rates, #50 in life expectancy at birth. Not #1 in these important areas.

Wait, we are #1 in something: External Debt! \$13.98 trillion as of June 2010.

In the meantime, we should rename ourselves "The United States of Corporations"! The largest states could be named: Energy, Pharmaceutical, and Military. We may be failing the people and the economy, but we're not failing the "free market"!

Fracking - If it's good for business then it can be expected to prevail unless grassroots efforts take hold and Congress takes responsibility along with their \$174,000 salary + perks. People need to vote for transparent government and accountability, and hold corporate officials responsible for the actions of their companies.

Visit the site: <a href="www.congress.org">www.congress.org</a> / call Congress 202.225-3121 and speak to your representatives / or sign petitions. Participate!

# 73.

louis

ny

June 27th, 2011

12:20 pm

A pretty shoddy piece of journalism -- what's the main point of the article? That companies are overstating the productivity of wells they're drilling? Investors can see production levels for individual companies to check their claims, and in total, the fact is that US natural gas production has been rising over the last two years. Will some of these companies go bankrupt for drilling too aggressively with low gas prices? I'd be surprised if that doesn't happen, but is that actually front-page newsworthy?

# 74.

Rich

Chicago, Illinois

June 27th, 2011

12:20 pm

If the NY Times is so interested in exposing scams and bubbles in the energy field, it should delve into the marketing of shares and IPO's of a series of small, "renewable fuels and chemicals" companies that have taken place over the past year. These companies all sold shares to the public, at a nice value, when they do not yet have any commercial products for sale, no revenues, are years away from a commercial plant, and face numerous engineering and technical challenges to scale up their technologies so may never have any commercial products. They are all still heavily dependent on outright government grants and support for funding. Yet their management (and the bankers who flogged the shares) go around making extremely optimistic statements about the future potential of these companies to entice the public to buy. Now, that would be a real story. Of course, I won't hold my breath to read that story in the NY Times.

# 75.

G. Reda Brooklyn June 27th, 2011 12:22 pm

So let me see if I understand this. The times gets e-mails from sources who won't allow their names to be used which only presents one side of the story. Times takes said information and puts it on the front page. Article also states that some wells may not be as good as originally thought and could go bankrupt. I thought we were a capitalistic society where there are winners and losers. And I guess that since there has been no proof on contamination, the times writes this stuff about doubts. What about the amount of money people have saved due to the decrease in the price of natural gas, which does burn better than oil

And the work and money people have made selling their leases, like in Penn. where their governor Rendell took a normal cautious path on this topic.

Based upon the Times so-called reporting, we should all be living in the stone age with no electricity because no matter what we do will have an effect which can not be tolerated.

# <u>7</u>6.

Andy Russell Tallahassee, Florida June 27th, 2011 12:25 pm

Everyone in the industry knows fracking has been a standard drilling technique for decades. What is new is horizontal drilling that allows gas to be pumped from over a thousand feet bellow water tables. In short extracting gas is even safer than it was. The Massive 2004 EPA report concluded none of the media scare stories regarding fracking were provable. Congressmen in the Senate that receive contributions from oil importers have ordered another review. In the meantime the International Energy Administration recently released a study that said we are about to enter "the golden age of natural gas." The last thing OPEC and imported oil wants is to have Americans driving around on cleaner less expensive American produced fuels. Are Faux Greens supporting OPEC.

The American Public is learning we have the worlds largest supply of clean burning natural gas. We can make OPEC irrelevant.

# 77.

Aussiebossy The West June 27th, 2011 12:35 pm

All these emails and all the inherent uncertainty is basically an average day in Natural Gas (and oil) Industry.

How about instead, you show me a time when these companies weren't doubting each other and the government was well respected?

# <u>78</u>.

BS

Teaneck, NJ June 27th, 2011 12:35 pm

Besides the questionable supply and economics, what about the safety and environmental concerns? Fracking has demonstrated serious environmental and health issues are never touted along with the rosy outlook...

# <u>79</u>

AuntyWBush

ohio

June 27th, 2011

12:35 pm

no name emails voicing opinions undocumented by facts are worth about as much as unsigned checks. write about something credible.

### tomdurkin

Chicago

June 27th, 2011

12:35 pm

Wow, the industry shills got up & to work early this AM. Despite reserves being overestimated, and fracking has destroyed water supplies, we still have a lot of people willing to believe industry rosy scenarios. That never leads to problems, does it?

# <u>81</u>.

# Roland Berger

St. Thomas, Ontario, Canada June 27th, 2011 12:35 pm

To money makers, a miracle is always at hand.

# 82.

sister taran Georgia June 27th, 2011 12:35 pm

Let's face it, there WILL be winners and losers in the chase for natural gas. Some investors will buy based on sales stories while others will do their research themselves or use the advise of proven financial winners will do well. Facts are still on the side of natural gas as a cheaper, cleaner way to provide energy in so many ways AND keep the money on our side of the ocean. Technology has improved and will improve more, making extraction cost effective as the price goes back up to more normal levels. China is going to be making more demands for oil and gasoline, making oil stay high priced. Unlike a government backed mortgages, most of the failed gas drilling ventures will just be picked up by the more efficient producers without leaving the taxpayers trillion dollar bills. INVEST WISELY\_DO YOUR RESEARCH IF YOU HAVE LOST LOTS IN THE PAST< YOU WILL PROBALY LOSE LOTS IN THE FUTURE-CHANGE YOUR INVESTMENT PROCEEDURES!!!!

# <u>83</u>.

T

Denver

June 27th, 2011

12:35 pm

The coal lobby warmly thanks the New York Times for there invaluable service to our interest in preserving the status quo and keeping the truth about natural gas - 60% less carbon emissions than even 'clean' coal - out of the minds of voters and elected officials. Also, a VERY SPECIAL shout out to all those well-meaning commentators to these article who bash the natural gas producers. You'd think we were paying you for this!

Michael S Wappingers Falls, NY June 27th, 2011 12:35 pm

Too many lobbyist; too little leadership in the White House. With an election looming why not initiate a pump and dump scheme - an instant cure for our energy problems sounds great? Given the policy failures of this administration smoke and mirrors must seem a God send.

# <u>85</u>.

Edward Texas June 27th, 2011 12:35 pm

It seems to me that this is not a question about the TIMES. One look at the supporting documentation gives a good overall view of why there is indeed a problem here. The breadth of the information and the import of the documents raise serious questions as to the viability of shale gas. All the hype and corporate speak in the world cannot get round that. The supporting documentation speaks for itself. Hats off to the NYT for including such a comprehensive document search.

#### 86.

tomdnyc10 New York, New York June 27th, 2011 12:35 pm

Fracking should be outlawed everywhere. We are destroying our environment with it. Ask the gas company CEOs if they are willing to drink the water from the wells surrounding areas where franking takes place.

#### 87.

PB

Manlius, NY June 27th, 2011 12:35 pm

Thanks for the important article on truthtelling in the natural gas industry. Many of the dynamics reported here pertain not only to the natural gas industry but to the banking and financial industry, real estate and mortgage industry, prescription drug industry, fuel-auto-energy companies vs. climate change scientists--the list seems endless these days. Also see today's NYT article on Andrew Breitbart.

A young research intern where I worked once commented, "Do you know how many jobs in our country depend on lying!" We made 2 lists: List A was jobs that require some or lots of lying; List b was jobs that rest on telling the truth. Guess which list was much, much longer?

We live in central New York, where the big gas companies have leased untold amounts of lake and farmland and are demanding to hydrofrack the huge Marcellus shale. We are being PR'ed to death by the repetitive, oh-so-reassuring "natural" gas ads (with the classy looking pretty lady in the bland gray pants suit) and "don't-worry-your-pretty-little heads" industry spokespersons. Never mind the well-documented damage to water, land, air, people's health, and participating towns and

communities. Assurances aside, we have seen the horrendous devastation the gas companies are wrecking in nearby Pennsylvania, where their Governor Tom Corbett has welcomed the hydrofrackers with open arms. See the film "Gasland."

We are living in an age when Truth has nothing to do with it--as our politicians remind us on a daily basis! A recent Tom Toles' cartoon showed how people went from saying, "I don't know if that is true" to saying "You used to need to 'know something' but then all you needed to know was how to 'look something up'" to "Now all you need to know is how to make something up." And, unfortunately, there seems to be no shame.

#### 88.

Jeffrey Brown Texas June 27th, 2011

12:35 pm

Note that our current consumption is about 24 TCF (Trillion Cubic Feet) per year. And it's important to remember that the US is a large net natural gas importer (primarily from Canada). It appears that US net natural gas imports increased last year.

To put US net gas imports in perspective, our 2010 net natural gas imports, were equivalent, in terms of energy, to all of Canada's net oil exports in 2010.

# <u>89</u>.

**Holly** 

Wellsboro, Pa June 27th, 2011

12:35 pm

Ian your quote, ""We might be in a 'gold rush' wherein a few folks have developed 'monster' wells," he wrote, "so everyone assumes that all the wells will be 'monsters." shows an incredible ignorance of how oil and gas operations works. There are always better wells and dry holes in every "play", "basin", "deposit" of oil and gas in the world.

I find your work very uniformed, immature and obviously with an anti-drilling agenda. I don't think you will make a career with this type of work, unless you are going to work for some radical environmental organization.

# 90.

ML-

Austin, TX

June 27th, 2011

12:35 pm

I read this in full yesterday, including the source docs. It seems many of the source docs from Sunday have been deleted. Going off what I can remember, it seems as if all of the Chesapeake docs are now gone. Does anyone have any reason for this, besides the obvious? I believe the source docs are now 200 pages lighter than they were yesterday.

jwp-nyc New York City June 27th, 2011 12:35 pm

Many excellent points here, but some major ones missed.

Much is made of the fact that water used in the fracking process goes much deeper into the earth than well-water, and drinking water strata. However, the oil industry and drillers always assume that well casements, especially over time, don't leak, or hardly ever do. Statistics and history suggest otherwise. Given the huge volumes of water used at high pressure to extract natural gas from shale, this concern cannot be understated. it is criminal to make light of it.

Oil and gas industry spokesmen like to emphasize how chemicals and solids comprise less than 2% by volume in the materials used in the extraction process. They think this will minimize in the public's mind that there is any risk. But, of the hundreds of chemicals and solids they are talking about, hundreds of them are known carcinogens considered hazards to human health when present in PARTS PER MILLION in drinking water. In other words 1:1000000 translates into the well producers proposing to insert toxins like diesel fuel at concentrations 2,000 that permissible in drinking water. Crazy.

Perhaps the biggest distortion in the case made for fracking is that it is profitable without DEDUCTING THE LOSS IN VALUE IN IMPACTED REAL ESTATE. If anyone thinks it can be argued that taking a beautiful landscape and turning its drinking water to poison and rending the rock beneath it into toxic rubble increases its salable value, they should seek a job with Andrew Breitbart or the oil industry in public relations.

Finally, with regard to whether the term 'fracing' or 'fracking' is a correct spelling, I recommend those interested in researching the subject to use the spelling without the "k" if they would like to find the highest amount of industry reports and studies on line. The oil industry favors using the 'fracing' tag as they have been advised that 'fracking' has a negative connotation. Gee.

# <u>92</u>.

# <u>Geronimo</u>

12:35 pm

California June 27th, 2011

All companies, regardless of their business, must abide by water quality regulations—as was pointed out in the Wall St. Journal's piece that apparently prompted this article. The question is whether fracking operations are so uniquely risky that they require separate, singled-out federal regs. Have that debate ad infinitum, if the legislators so choose. It's not as if polluting groundwater has no consequences now, and we need to start from scratch. There's lots of regs now, and the scare tactics from the green faction are only typical.

Similarly, if shale gas is going to prove so much more expensive than current projections, the legislative branches, federal and state, can simply refuse to bail out the failures. That's the beauty of capitalism, folks! He who funds the risk, takes the failure. Just don't underwrite the failures after the fact.

A lot of little failures of unprofitable ventures, balanced by a few big hits, can help rebalance the energy equation in the direction that everyone says we need to go.

If farmers markets, solar panels and local-everything were the answer, we'd be a lot farther down that road by now. The big-industry alternatives are going to stay in the lead for a long time. You can't rebut something with nothing--you need to rebut something with something better. Exactly what was that better alternative, on the smorgasbord of choices available to the US population?

# 93. jentingting

Fort Worth, TX June 27th, 2011 12:35 pm

What its like in the gas patch: my lower income neighborhood in the Barnett Shale is strung with seismic testing lines. The thumper trucks come next to make mini-earthquakes so they can determine where to point their giant underground pipes. The area already tests high for benzene. Our air pollution is terrible. My 3 year old niece coughs incessantly and the adults have sore throats and watery eyes. There are drilling sites within a hundred feet of the local river. Most of the people who live in this area do not own their mineral rights and never saw a dime. The city, despite a landscape littered with wells has closed the swimming pools (and we have hit 100 degrees numerous times.) All the benefit people in my neighborhood will see is increased environmental degradation and a polluted future. I would love to open a hip little cafe, but instead when I can leave in a few years, I will. How will this town afford the clean up and the health costs when the cancer cluster blooms.

#### 94.

# Pocantico

Asbury Park June 27th, 2011 12:45 pm

The price of natural gas has gone down in real terms. It is now much less expensive to heat homes. This runs counter to the tenor of this article but it is a fact of life. The paradox is that the gas companies go broke if gas goes to a penny, and they make money if these alarmist malthusian predictions of shortages come through.

Unfortunately, this Times article is biased and leaves out much of the dynamics and analysis.

### 95.

Andy Russell Tallahassee, Florida June 27th, 2011 12:45 pm

In a few short years we have gone from an importer of natural gas to having more natural gas than we know what to do with. Low prices are good consumers but inefficient drillers are finding it harder to make a profit.

I look forward to the day I can buy a natural gas vehicle that runs on this clean and inexpensive fuel. Some in congress are working to speed up the conversion of vehicles from imported oil to natural gas. Senators that support imported oil interest and are afraid of faux greens appear to be holding up progress.

Nancy Upstate New York June 27th, 2011 12:55 pm

The idea that natural gas is "clean" and a salvation for the environment is a chimera. The technologies used to extract shale gas are, in their current form at least, highly polluting. In addition to polluting local groundwater, hydro fracking emits carbons. According to some calculations, when it comes to carbon emissions, fracking, as presently practiced, is a wash. When it comes to the local environment of my own community, shale gas extraction is potentially deadly. I am very worried.

# 97. Navin Seattle

June 27th, 2011

1:00 pm

Every form of energy production and consumption has it's downside, environmental impact. Even if the recoverable reserves turn out to be a quarter of what's estimated it will go a long way toward reducing our reliance on OPEC, save us billions of dollars in trade deficit, create more jobs, reduce pollution and contribute to mending of the American economy. Instead the focus should be on being pro-active in developing technologies to harness this resource on our home turf in a safer way. Diverting few billions wasted on wars in Iraq, Afghanistan, Pakistan etc. If you tack on the trillion spent on wars and 'aid' to keep the middle east oil flowing, a barrel of oil actually costs us close to \$500 per barrel while the Chinese and others get a free ride. It's time to quit bickering amongst ourselves and get on with the job of re-building our economy.

# <u>98</u>.

Ronald P Abate Las Vegas, NV June 27th, 2011 1:20 pm

Most every one of the smartest companies in the hydrocarbon industry have paid big bucks to purchase interests in these shale gas plays. They are putting their money where their mouth is. The folks at the EIA have done nothing but offer senseless speculation, which the NYT have latched on to because fracing promises to convert natural gas from a bridge fuel to an expensive renewable fuel future to the fuel for the foreseeable future. Using fracing companies are also producing oil from shale, which has made the economy of N. Dakota booming. Exploiting both hydrocarbons is the surest path to energy independent, not renewables. Once again, NYT reporting is ideologically based, not fact based.

# <u>99</u>.

SCW Charlotte, NC June 27th, 2011 1:20 pm

Looks to me like the author is more interested in killing any kind of potential subsidy to a fossil fuel industry (The Natural Gas Act), and senses the danger because Republicans and sensible Democrats can actually agree on it. These companies are financially stressed because there is a new supply glut

of their commodity pushing prices lower. I wouldn't expect government officials or NYT authors to understand anything that economically fundamental.

#### 100.

Jeff

Ohio

June 27th, 2011

1:30 pm

I really don't understand why we are not producing tons of biogas. We have large cities with huge sewage that needs to be treated so it can be returned to the rivers and streams we drink in. You gotta handle the stuff anyhow. Why not fermentation into biogas (basically natural gas) and use that to run power plants. The solids that are left over make excellent natural fertilizer. Why aren't our bigger cities, (New York, chicago, LA) doing this to help with their own need for a replacement to oil.

#### 101.

BR

NJ

June 27th, 2011

1:45 pm

The New York Times position apears to be anti-drilling. This is unrealistic because the gas is there and it is going to come out. So anything that NYT runs will impact the industry, but not stop it. This series will enforce efforts of the drillers/gas companies to make it cheaper to get the gas out. The quickest way to do this is to ease up on regulation.

Therefore, the locigal result of your editorially tainted reporting will be further damage to the environment.

Don't do this.

These companies would not be there if they were not making ridiculous amounts of profits. Get behind responsible drilling - it is really the ONLY to protect the environment and the economy. Tight regulation, oversight and making the companies employ proven technologies to clean frack water.

A realistic approach to hydrofracking can result in a win-win for the country.

#### 102.

Isabell

San Antonio, TX

June 27th, 2011

1:55 pm

This isn't about shale gas never being economic, the holes are in the ground and oil and gas companies will make their money, one way or another. This is about what oil and gas companies are telling their investors and the people whose land and water are being fraced. Again and again we see this type of corporate irresponsibility, companies willing to make big gambles with regular people paying the price when things go sour. Look at the BP disaster in the gulf or the financial collapse. Unfortunately it falls to regular people to decide if they want their back yard fraced, and with industry providing the "facts" it might look like a pretty sweet deal. Thank you Ian Urbina and NYT, this good journalism is the only way we can hold these industries accountable for their actions. I hope its not too little too late. And for other readers, you better believe industry PR firms will try anything to counter the truth, so watch what you read. Welcome to the PR age.

# <u>103</u>.

Ben

Kings Park, NY

June 27th, 2011

1:55 pm

Everyone needs to see the documentary "GASLAND". Upon seeing the documentary, that includes many personal interviews from farmers and residence effected, academia that is doing studies on effects of fracking, corporate executives that deny any problems, and government officials who are not exactly forthcoming, no one, but no one, would even suggest we get this natural gas however large the "deposits" are, not if we intend to continue to have fresh water and soil free of toxins, but then again, who would want that. Help!!!

# <u>104</u>.

Jon

New Mexico

June 27th, 2011

1:55 pm

For years the media, including the NY Times, has uncritically parroted the claims by the oil and gas industry that natural gas is a safe, cheap source of fuel. Tell a lie, make it a whopper, repeat it often...and most people will believe the lie to be the truth.

### 105.

# WGA

Baton Rouge

June 27th, 2011

1:56 pm

This article is as irresponsible as any news release issued by the cheerleaders of the shale gas industry. For the NYT to base an article dealing with such a complex subject on cherry-picked anonymous sources does its readers a great disservice. Shame!

# <u>106</u>.

plistna

Suburbs, NJ

June 27th, 2011

1:57 pm

"Ground Water Protection Council" - funded by the energy industry. Really tells you all you need to know about how low the industry will go in terms of deceptive practices.

#### 107.

Lawrence

Lafayette, California

June 27th, 2011

1:57 pm

"E.I.A.'s heavy reliance on industry for their analysis fundamentally undermines the agency's mission to provide independent expertise,' said Danielle Brian, the executive director of the Project on Government Oversight, a group that investigates federal agencies and Congress."

So EIA may not be independent of industry influence? Really? Does MMS (Minerals Management Service of the Department of the Interior) ring a bell? Will we ever learn from history?

Lawrence Bouett retired research scientist, US energy industry.

#### 108.

JavalinaTex Houston, TX June 27th, 2011 1:58 pm

Let me see... just pulled up all the Haynesville & Bossier shale production history... In less than three years, in fact mostly in the last two... from ZERO roughly 1000 wells drilled, 4 Billion cubic feet per day produced in the most recent month that is almost 7% of US daily consumption...

That sure sounds like Enron, Dotbobms & the Banksters, doesn't it?

Yes, some players can run into financial problems, but the difference is that this is a legitimate real business that can be financed; not a concept.

# 109.

Hypnozzz United States of America June 27th, 2011 1:58 pm

Chesapeake Energy Corporation Comments on Inaccurate and Misleading New York Times Article "It is also absurd to conclude that shale gas wells are underperforming while America is awash in natural gas and benefiting from natural gas prices less than half of what they averaged in 2008. I also note that Chesapeake and other shale gas producers are routinely beating natural gas production forecasts. In fact, in 2009, thanks to shale gas, the U.S. passed Russia as the largest natural gas producer in the world. Today shale gas production represents approximately 25% of total U.S. natural gas production. How can shale gas wells be underperforming if shale gas companies are beating their production forecasts, natural gas prices remain low and U.S. natural gas demand is at a record high?

#### 110.

Michael Dennis Mooney

Albany, New York June 27th, 2011

1:59 pm

The NY TIMES is doing a brilliant job of reporting on the shale gas story, also on the threats to fresh water resources from this and other kinds of mining. It's just another petrochemical industry, like oil, and not a renewable like solar and wind.

111. Frank Barry SLO, CA June 27th, 2011

2:00 pm

The issue most important to the health of our nation is Fracking...

The NYTimes has many past articles explaining the dangers of this product being produced...

The heavy isotopes contained in shale gas reservoirs, when burnt off into the atmosphere, can be deadly poison to nearby populations...

Burning off the unwanted gases is usually done during the night-time to avoid onlookers, much like the industrial-utilities have done in the past with their cleaning and clearing of tall smoke-stack chimineys...

I doubt the investors into these Ponzi schemes were made fully aware of the deadly dangers in this type of drilling...

112. hadarmen NYC June 27th, 2011 3:30 pm

There is two things in this energy impasse.

America doesn't have enough oil and oil is mainly supply by hostile coountries. Future of this energy source is murkier than any other solution.

Canada is already ramped up its tar sands oil production, lets invest to this area and make it less damaged to earth ( no joking and it is not clean at all)

Natural gas is feeding 600 million EU plus Russia it is clean and it is plenty, since when fossil fuels are accepted as pure clean.

So bottomline is America is paying way low than rest of the world for energy, Time is to pay more and compensate the environmental damages as well as technological needs.

4.3 USd per gallon gasoline talking clean energy is absolute mediocre for media and for us while rest of the world paying at least double of this price.

Francisco Longoria Anchorage, Alaska June 27th, 2011 4:55 pm

A New Vision for President Barack Obama

The United States has fallen from its status of world leader to that of stuck in limbo. Hard to believe that a great nation that put men on the moon is struggling to stay afloat in a massive sea of debt, owing our soul to a third world country (China) that is moving up fast as world leader. I and just about every other American will most likely agree that if we don't change our ways quickly and come up with a different way to survive, then we will have failed as a nation.

Personally, I think that we have already failed as a nation because we have relied on our elected leaders to get us out of the mess that we are currently in regarding our financial dependence on China. This is not working for me and I believe for most USA citizens. We have elected leaders who are mostly in for their personal gains rather that what is good for the country. It is also evident that our once great country is so divided in its ideology, that it impairs us as a nation of doers who get the job done to make the USA great once again.

The problem as I view it is "if it is manmade, it can be repaired." My step father introduced me to that philosophy years ago. The problem as I see it is... that it can be repaired because man created it. My idea is simple and will solve the majority of the financial dependency on China. These dependency issues include for example, the national debt, the environment's global warming, the unemployment, and the housing crisis.

We need for President Obama to stand before the nation and make this announcement to the world, "America is going to cut its dependency on all oil, foreign and domestic, and become the first nation to run on natural gas. We will start with our cars, our homes, and our transportation industry and energy production...."

# 114. Joe C

Brooklyn June 27th, 2011

5:36 pm

I read this article with great interest since it affects all of our interests and our children, etc. There is no mention of the poisons being injected into the ground destroying our water systems. Maybe that is mentioned in other articles and therefore deemed not necessary to mention in this one. That is a huge problem and I think deserves at least a sentence. As to comment #55 think about it: Are you truly independent if your paycheck comes from the energy (or any other business) company? My answer based on experience and common sense NO. Not they they are evil, they have to feed their families too. The chemicals being pumped in are secret and protected. Doesn't that give you major pause? Please look at the information available on the issue. I dare say if you could turn on your water in your kitchen and light it with a match (no exaggeration) you would write a very different thought.

#### 115.

June 27th, 2011

5:36 pm

This comment has been removed. Comments are moderated and generally will be posted if they are on-topic and not abusive. For more information, please see our Comments FAQ.

June 27th, 2011

5:36 pm

This comment has been removed. Comments are moderated and generally will be posted if they are on-topic and not abusive. For more information, please see our <u>Comments FAQ</u>.

#### 117.

# Richard

Stateline, NV June 27th, 2011

5:36 pm

@ The "Not In My Backyard" posters,

The truth is that burning Coal is estimated to cause the deaths of more than 30,000 of your friends and neighbors every year. That is today and not possibly tomorrow. Using natural gas in place of coal would save around 22,000 of those lives each year. The same natural gas would create new good paying jobs for your friends and neighbors.

#### 118.

Architect

**NYC** 

June 27th, 2011

5:36 pm

I suggest The Times could shatter any illusions about natural gas's "green" aspect if they did a factual, data rich article focused solely on the polluting and wasteful practice of "flaring" gas wells. This holds true for any and all gas wells- conventional "dry" gas or fracked wells. Flaring alone would make a great article.

#### 119.

JAS

Orlando, fl

June 27th, 2011

5:37 pm

If the Times question the viability and safety of Natural Gas, my inclination is be for it. Other countries are using NG without trauma. I think the Times and the liberals are looking at a "gift horse in the mouth." Let's have a national debate without the polemics from those in favor and those that are not; this country needs a jump start and we are not going to get one from Obama!

# <u>120</u>.

Nick Grealy

London

June 27th, 2011

5:42 pm

Aubrey McClendon of Chesapeake has done some really nasty things politically: Swift Boats etc come to mind.

And I have loved the NYT since I was a kid in Ireland reading day old Herald Tribunes, moving on to buying the NYT every day in NY (for a dime!), then buying the IHT as highlight of my day in Tokyo, Paris and now London. I mention that because for almost half a century my day is incomplete without the NYT.

But Aubrey is 100% right on this one and bless him for saying so in a measured and eloquent way. And shame on the NYT. I hope that Ian U's vendetta against shale won't make me trust the rest of the reporting any less. That would be a real tragedy.

# <u>121</u>.

**MRP** 

Houston, Tx

June 27th, 2011

5:43 pm

Veneer is the right word to use to describe this thin little hit piece. I've been in the oil business 30 years, I've been involved in a number of these shale plays and I assure you that this is just point of view masquerading as analysis. Go get the facts, talk to people who are actually putting serious money in these things, find out how they look at it, talk to the people who did the MIT study, you know, journalistic stuff like that.

# 122.

Mark

Cincinnati, OH

June 27th, 2011

5:43 pm

Is this article objective analysis, or slanted? I believe all you need to see to make that determination is the list of headlines for NYT "Drilling Down" series of articles. Every one is negative. It certainly makes me skeptical about the agenda of the author and the NYT on this issue.

#### 123.

<u>hadarmen</u>

NYC

June 27th, 2011

5:43 pm

Oil coal or natural gas, what we are paying for these sources is just for production costs, what about pollution, US public always yearning to lower prices, but i never saw a common demand for compensating the pollution effects.

where is honesty here?.

### 124.

Raker

Boston

June 27th, 2011

5:43 pm

No mention of fracking or flammable tap water in an article about the viability of extracting natural gas form shale? Couldn't you have fit a little more news into this story? It is the most important part, after all. (T. Boone Pickens's fortune means less than nothing to me.) Talk about a buried lede—buried somewhere upstate where nobody will ever find it, unless they're careless enough to light a match in the kitchen.

# <u>125</u>.

johnt1 Pottsville PA June 27th, 2011 5:58 pm

Pennsylvania's Republican Governor Thomas Corbett, a former frustrated school teacher, who enjoys cutting funding for basic and higher education, pronounced that Pennsylvania was going to be the new TEXAS of the Northeast.

He based this assumption because he scientifically measured the amount of natural gas in our extensive Marcellus Shale formation and calculated the amount of gas produced by each well, I guess?

I am not a scientist but using some logic, I asked myself how do you, Governor Corbett, know how much gas will be produced by the thousands of wells proposed to be drilled into the Marcellus Shale formation by your biggest campaign donors, the TEXAS drilling companies?

But let us not forget that Pennsylvania is not TEXAS, at least not yet! Can natural gas production be measured and quantified in cubic feet per well on a statewide basis, I never thought so but he must have?

This article only confirms my doubts. Maybe, the best way to know about Governor Corbett's, assumption that the COMMONWEALTH will become the new TEXAS of the United States of America is to drill in back of the Governor's Mansion in Harrisburg. I know the area very WELL.

# 126.

Bill Ithaca, NY June 27th, 2011

6:25 pm

There are lots of questions about the potential for gas drilling and its long term profitability. Industry calculations, of course, do not factor in the costs associated with environmental and health costs. It assumes that those will be paid for by taxpayers. The companion piece in today's Times, SEC Shift Leads to Worries of Overestimation of Reserves, does a nice job of illustrating how rule changes have made it easier for gas companies to increase their estimated reserves, how some knowledgeable observers fear that they are actually overestimating those reserves, and how there are no independent auditors available to say whether those claims are true or false. Today's headline in the Ithaca Journal touts, "Gushers Highlight Shale's Potential", describing 2 wells that appear to have hit it big. Cabot, of course, says this is illustrative of what other landowners and investors can expect from the Marcellus Shale. Cabot, however, is silent about the environmental and health hazards already evident throughout PA. It characterizes those as unfortunate and rare, certainly nothing to worry about. As a landowner and environmentalist, I want clean water, clean air, and the ability to enjoy my property free from the constraints of the gas industry's dirty practices. It is long past time for the federal government to get behind alternative energy and the green jobs they will support. Let's stop the subsidies to oil and gas, coal, and nuclear energy. In the case of gas, let's at least press the industry to have a full accounting of shale gas's costs and benefits.

tom

pittsburgh

June 27th, 2011

6:26 pm

It is factual that we have at least a century of natural gas usage in reserve. It is also true that almost every decade brings about schemers trying to make a buble or deflate a bubble in order to get rich quick. In the late 1980's there was the fear of running out of natural gas. Then the Enron debacle, in the last decade it was the coming boom in nuclear.

The natural gas from shale deposits phenomina, can make us energy independant and provide us cheap energy for revitalizing manufacturing. But the ugly head of a sellout by politicians is emerging. In Pa. the republican governor threatens to veto any tax on the booming marcellus shale drilling. This despite his proposal to cut state funding for education up to 50%. The drilling industry being his largest campaign donors.

We need to make sure that the natural resources benefit all to some degree. The potential for harm to our ecology must be gaurded and reserves of tax money put aside to make sure problems can be handled. Let's not forget about the fortunes spent cleaning up after our coal mines closed. We need politicians that have not sold their souls to the energy companies as seems to have happened in Pa.

#### 128.

ruth

nyc

June 27th, 2011

6:26 pm

Shale gas is not clean. It is another fossil fuel. Procuring it is as dirty as coal if you take into account the entire process.

Shale gas damages health: many serious illnesses are caused by fossil fuels combustion - asthma and cancer rates are increasing, not to mention climate change. If only tiny portions of toxic chemicals migrate into drinking water (which can't be filtered out), birth defects, cancer, rashes, death can and will happen.

Shale gas is not safe -- that is unless one risks the precious little gorgeous nature left on the planet.

Shale gas is not economical because it is paid for by tax payers in subsidies.

Shale gas will not get us off foreign oil - #1 it is not oil, #2 to spend \$\$ to recalibrate our machinery is just as costly as going to renewables.

These Urbina articles are welcome, examined information in a news and commercial environment where exaggerations and even lies are treated as fact.

### 129.

Jeremy Abramowitz Washington, DC June 27th, 2011 7:07 pm

The take-home message is go renewable or go home. Everything else is a recipe for crash and burn.

# <u>130</u>.

**i**wdavis

Lake Oswego, OR June 27th, 2011

9:25 pm

Why does this article ignore the environmental "cost" of natural gas production from shale? Fracking infuses chemical pollutants into underground water sources. We should be funding solar and wind power research and innovation; not more fossil fuel development.

# <u>131</u>.

Barbara Sorrenson Ithaca, NY June 27th, 2011 9:59 pm

jwp-nyc makes a compelling point that the loss of value in future land development is never calculated when coal and oil pitches strip mining and drilling. But, when you look at the train wrecks also knows as West Virginia and Pennsylvania the impact is obviously reflected in their low state rankings in gross property values.

# 132.

SB

Montreal

June 27th, 2011

11:40 pm

All these recent articles about natural gas found in shale seems to me to be a "fishing expedition" to test the public opinion poll. What better way to do this than to "feed out" articles on the subject to the major newspapers.

How come there are no articles about public consultations on the topics of gas extraction from shale and impact studies on the same topic?

If there is so much energy in this supposed "new found resource (yeh, right!), then the government should create all kinds of provisions and laws to protect the environment, the animals, and especially people from the effects of the drilling, extraction, and transportation.

Unfortunately, in this day and age, with controls more likely dictated by the lobbyists to their members of the senate, congress, and the president, I doubt that the "status quo" will change.

Also unfortunate is that this gas will eventually be removed from the ground to the financial benefit of the oil companies and to the detriment of the people of the US.

#### 133.

B-737

SLC. Utah

June 28th, 2011

12:05 am

An absolutely appalling example of journalistic malpractice, shot through with factual errors, outof-date information and anonymous quotes from self-interested "sources" (a handful of incompetent EIA bureaucrats who have been embarrassed by their own utter failure to predict the shale gas revolution).

The absurd claims made in this article have already been publicly repudiated by IHS/CERA, the most reputable energy consulting firm in the U.S. and no prisoner of the oil and gas industry. Most other energy experts are scratching their heads in wonder at how the Times could possibly have allowed this article to get into print. It's that bad.

The Times should be ashamed of this grotesque and disgraceful lapse in its reporting and editing standards. Mr. Urbina fully deserves the scorn and censure he is currently receiving from legitimate energy experts in the U.S. and around the globe.

# 134.

severed2009 Cornwall, CT June 28th, 2011 12:20 am

Are there people who stand to make money from activity in shale and are spreading news in order to try and increase this activity? Are they making or influencing the news? It sounds like we are seeing the result of activities to inflate a bubble. This is what happens as the bubble inflates. To what extent the bubble is a valid bubble we do not know.

Those working to inflate the bubble do not care whether it is valid or not. Their only concern is to make it appear valid and a good investment. If there are assertions that make shale look dubious, they will try to see that these assertions are suppressed or overlooked or ignored or otherwise robbed of any power to make people take a second look. And if later the bubble is about to burst, they will unload their losses onto someone else.

The Times cannot report all this without evidence; all it can do is report the back-and-forth of the discussion and leave us to sort out the believable from the inflated.

# <u>135</u>.

# **irREVERENT**

Brooklyn June 28th, 2011

8:10 am

Where is the other factor in this issue concerning the environmental devastation gas drilling causes? The process of hydrofracking is incredibly toxic, unstable and has contaminated land and aquifers all over the country. Where is the discussion of the threat to the economy and health of Americans living near well sites? Weston Wilson, a whistle blower from the EPA, has stood by the enormous holes in the myth that gas drilling is "more environmental" than other forms of fossil fuel use. The fuel may burn cleaner on your stove but the extraction process is dirty, toxic and creates massive pollution. I highly recommend seeing the Oscar nominated Gasland by Josh Fox.

Rod W

Miami

June 28th, 2011

8:15 am

The Times should be embarrassed by this article. The author's naivety has been rather deftly exploited (what government advisory board does rely upon industry experts?) to make a case supportive of the Administration's

virtually unavoidable easing of restrictions on domestic oil production.

# 137.

Joseph-Ohio Parma June 28th, 2011 8:37 am Drill.

Frack.

Now.

Wisely, safely, withour impacting the environment.

Develop the technology to do all of the above NOW.

We have a huge energy resource to develop without having to go to war and kill / maim millions and hundreds of thousands of people over. Especially OUR OWN PEOPLE.

Anybody (especially any of our leaders) who can't weigh and see the benefits to OUR population is STUPID and MISGUIDED.

Do what it takes to become Energy Independent as a Nation.

No Excuses Allowed Here.

### 138.

David

Washington DC

June 28th, 2011

8:37 am

Shale gas accounts for less than 25 percent of US natural gas production. This poorly organized article needs some sort of overview that makes this clear at the outset.