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Natural gas

Getting fractious over fracking

Environmental campaigners that are raising fears over shale gas extraction might just be cutting off their nose to spite their face, argues Jon Entine

Who would have thought the Friends of the Earth would befriend Vladimir Putin, or at least unwittingly encourage his monopolistic mania? Or that Greens would put vanity environmental politics ahead of the needs of the developing world? But that's just what's happening.

The driver for this unlikely alliance is the boom in natural gas production from shale rock. Natural gas from shale has been produced for more than 100 years in the Appalachian and Illinois basins of the US, but the sites were often only marginally economical.

That changed with an innovation known as "fracking" – using horizontal drilling to fracture tight rock formations deep underground by injecting, under immense pressure, water and chemicals mixed with sand or ceramic, allowing methane gas to escape.

It's a disruptive technology, but it multiplies the world's supply of natural gas, which emits less in the way of greenhouse gases when being burnt than other carbon fuels. It also offers a geopolitical windfall – preventing the rise of new energy cartels, unless environmental advocacy groups succeed in injecting precautionary sludge into the wheels of change.

In 2003, when Russia passed the US as the world's natural gas producer, Alan Greenspan, US Federal Reserve chairman at the time, urged a rapid expansion of natural

gas imports to compensate for a growing shortfall. "We are not apt to return to earlier periods of relative abundance any time soon," he warned.

Putin & Co were soon talking up the inevitability of a natural gas monopoly to rival Opec.

Energy squeeze

Moscow has proven itself willing to use gas reserves as a weapon. It cut supplies to Ukraine in January 2006 during a row over prices. In mid-winter 2009, European coun-

Fracking multiplies the world's supply of natural gas

tries received no Russian gas via the Ukraine for three weeks while Moscow and Kiev argued over pipeline fees.

But tremulous fears of a gas squeeze are so yesterday. Over the past decade, a wave of drilling around the world has uncovered trillions of cubic metres of shale rock gas. As a consequence of finding massive shale reserves buried deep under Appalachia, from Tennessee to New York, the US is now building new terminals – not to handle imports but so it can export to Asia a growing gas bounty, which is more than twice the size of Saudi Arabia's massive oil reserves.

Ten years ago shale gas represented 1% of US gas supplies. Thanks to new drilling technologies it's now 20%, and is on schedule to hit 50% by 2020. The US and Canada together have more estimated gas reserves than Russia, the Middle East and Venezuela combined – enough for more than a century.

Europe receives one-third of its natural gas from Russia. Its economic stability may yet rest on Poland, home to an estimated 1.4tn cubic metres of shale gas. ConocoPhillips and ExxonMobil have begun drilling near Gdansk. There are also substantial reserves in Germany, India, South Africa and Australia.

New discoveries have forced Moscow to slash prices to formerly captive customers – by 30% to Ukraine, for instance. It has also led to price reductions for the developing world, which is groaning under the weight of rising commodity costs.

While Britain is not yet dependent on Moscow, by 2012 it will begin importing substantial quantities via Nord Stream, a new Gazprom-owned pipeline. The discovery of substantial deposits of shale gas near Blackpool in Lancashire by Staffordshire-based Cuadrilla Resources, combined with fears of Russian instability and dominance, has touched off a gas rush. That's led to protests by the usual green suspects.

"Finding gas in the Bowland shales [in the UK] could be a disaster for the environment," says Friends of the Earth, claiming there is an "unknown risk to wildlife". Greenpeace, while not as adamant, has expressed similar concerns.

In a Machiavellian twist of ideological politics, it appears only the extreme wing of the environmental community can save the Russian cartel – and looks keen to do just that.

Environmentalists complain that the shale gas boom will slow the transition to renewable energy. They have proposed a moratorium on extraction until the “environmental and financial unknowns” are answered – say in 30 years or so. They echo Gazprom’s claim that gas fracturing poses extreme environmental dangers.

It’s the hackneyed precautionary strategy. Litigate new technology to a standstill based on frightening but farfetched scenarios, then claim that corporations should not be given the go-ahead to mine because they face growing legal and environmental risks. The critics take their case to Wall Street and the City, claiming that the legal risks – which they manufactured – are too great to justify the gamble of funding the new technology.

The belief that shale gas poses hazards to aquifers has been generated almost entirely by publicity surrounding the polemical documentary *Gasland*, which was a hit on the liberal circuit last year. It looks at the impact of fracking in the US in the mid-2000s before environmental regulations were in place. Its most memorable scene shows a Colorado homeowner downstream from a shale mine igniting his chemical-laden tap water with a lighter.

Too simplistic?

It’s great cinema but dangerously simplistic public policy. The dumping of waste water near water supplies, rare to begin with, is now being addressed and more carefully regulated in the US. Tough laws make it unlikely it would ever happen in Canada, Europe or Australia. And more mines sites are using deep-well injection or evaporation pits to limit environmental impacts.

The greens are right, however, in saying the shale boom is indeed likely to upend the economics of renewable energy. But that’s arguably for the good. Renewables still can’t compete without heavy subsidies, which are hard to justify when there are cheap, plentiful substitutes that undercut dirty coal – even if gas is not as politically popular as wind or solar.

Long term, this transition fuel should work in everyone’s favour. With less of an urgency to waste money on inefficient, short-term subsidies, hard-pressed governments can justify pouring more money into research and development so renewables can eventually compete on their own.

Pragmatic progressives on the left, such as the Environmental Defence Fund (EDF) and some ethical investor groups in the US,



Hands off, Gazprom!

cautiously support the new technology.

“Investors believe that companies can profitably minimise fracking’s water contamination, gas leaks and other material risks by adopting best management practices and by phasing out the most toxic chemicals,” says Mindy Lubber, president of

With less urgency, governments can justify more research so renewables can compete on their own

Boston-based Ceres, an international network of investors and public interest groups.

The EDF’s expert on the new technology, Scott Anderson, agrees. “If wells are constructed right and operated right, hydraulic fracturing will not cause a problem,” he says in an interview on the activist news site Energy and Environment.

But couldn’t this view be seen as abandoning renewables?

“At the EDF, we don’t pick fuels. We are realists; we recognise that fossil fuels will be around for a while,” Anderson says, noting that states in the US have considerable experience in regulating well construction and operation.

Anti carbon-energy legal hounds might be able to tie fracking into knots for purism’s sake, but the environmental consequences would be severe and the developing world would take the biggest hit. It would be a sign of maturity if stubborn eco-romantics reconsidered, and began using their considerable clout to back achievable incremental change. Winning Pyrrhic victories that do little to ease the world’s addiction to dirtier energy sources helps no one. ■

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