



Comment

Invisible aid to the decentralized revolution

The need to combat climate change with economically viable solutions is driving structural changes in the way developed and developing countries alike produce and deliver electricity. WADE research has documented the role that decentralized energy technology can play in reducing pollution and delivered power costs. The twin challenges of the environment and the economy have given rise to a ‘revolution’ in power generation that is underway around the world. However, the emergence of a new driver promises to have an even more profound impact on global power generation scenarios.

The new secret ingredient is none other than our old friend – natural gas. But, almost overnight, the world has realized that it is virtually awash with abundant supplies of natural gas that can fuel clean power generation. Specifically, prolific deposits of unconventional shale gas, located around the world, can finally be economically produced as a

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result of advancements in drilling techniques. Tony Hayward, CEO of BP, calls it a ‘quiet revolution’ but perhaps it should be referred to as the ‘invisible revolution’ since you cannot see natural gas and nobody saw this gas bubble forming.

The coming of shale gas was the talk of the town in Buenos Aires during the recent World Gas Conference. Hayward estimates that shale gas would add 60% to the 6500 trillion cubic feet (tcf) of conventional gas supplies. Daniel Yergin of IHS Cera indicated that it could actually be as much as 16,000 tcf. Tom Skains, chairman of the American Gas Association, told the crowd: ‘Perhaps never in its history has the US domestic natural gas industry experienced more changes than right now, and this is just the beginning. The abundance of American natural gas resources is a fundamental change – a paradigm shift – in conventional wisdom.’ Rick Smead

of Navigant Consulting, who had earlier performed a study of the US potential, said: ‘Natural gas production from shale formations is growing exponentially, increasing from less than a billion cubic feet (bcf) a day in 1998, to about 5 bcf a day now. The extent of this ramp-up has not been fully captured by many reserve estimators, probably because their emergence has been too rapid for existing models to capture accurately.’

Even though this was the World Gas Conference, Hayward focused his remarks on electricity generation because of the potential for this to serve as a principal driver of the global gas market to 2030. According to Hayward: ‘Gas is the fuel that offers the greatest potential to provide the largest (emission) reductions at the lowest cost – and all that by using technology that’s available today. If we get it right, gas can transform the global energy outlook in the decades to come.’

What is truly amazing is that merely three years ago at the last World Gas Conference, none of this was on the radar screen. Like the global financial meltdown, nobody saw this coming. The conventional wisdom then was on the need for imported liquefied natural gas (LNG) to fill the widening supply gap as mature producing basins rapidly declined. Perhaps the real lesson here is to be wary of the consensus of opinion. When everybody thinks they know it all, we really know nothing. The good news is that these natural gas reserves can soon be used to produce clean and efficient distributed power supplies and that the world should soon see the impact of this ‘invisible revolution.’

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