

Shale Gas in the United States: Transforming Energy Security in the Twenty-first Century*

Gas de lutita en Estados Unidos: la transformación de la seguridad-energética en el siglo XXI

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ABSTRACT

The United States is the biggest energy consumer in the world, accentuating its energy security priorities in twenty-first century geopolitics. As an alternative to oil, shale gas has modified today's economic and global political scenario, providing Washington with new capabilities for redesigning its national and foreign energy policies toward innovative, self-sufficient development. The U.S. economy is highly dependent on energy resources; however, in the last decade, the shale revolution has aided it in gaining relative economic stability in a volatile global economy. Shale gas has encouraged economic development in the North American region, while raising important environmental concerns about the extraction process called hydraulic fracturing or "fracking."

Key words: United States, energy security, geopolitics, shale gas, economy, foreign policy

RESUMEN

Estados Unidos es el mayor consumidor de energía en el mundo, lo que recalca sus prioridades de seguridad energética en la geopolítica del siglo XXI. El gas de lutita, como un recurso alternativo al petróleo, ha modificado los escenarios político y económico actuales. Le ha dado a Washington nuevas posibilidades de rediseñar sus políticas energéticas exteriores y nacionales para que se enfoquen en un desarrollo innovador y autosuficiente. La economía estadounidense es muy dependiente de los recursos energéticos; sin embargo, la revolución del gas de lutitas ha ayudado a Estados Unidos a adquirir una estabilidad económica relativa dentro de una economía global volátil. El gas de lutitas ha estimulado el desarrollo económico en la región norteamericana, mientras que aumenta inquietudes importantes respecto a su proceso de extracción, llamado fractura hidráulica o fracking.

Palabras clave: Estados Unidos, seguridad energética, geopolítica, gas de lutitas, economía, política exterior.

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We're proving that it is possible
to grow our economy robustly
while at the same time doing
the right thing for our environment
and tackling climate change in a serious way.

BARACK OBAMA

Remarks by the President on Energy and Climate Change 2015

INTRODUCTION

The world's largest consumer of natural gas has found a way to deal with energy security and self-sufficiency in the first part of the twenty-first century by enhancing a new energy option in the United States: shale gas. Although oil continues to play a central role in the international energy market, the United States has doubled its production over the last six years and is now importing less (*The Economist*, 2014). This has, in part, affected the international price of oil as it has dropped to less than half from June 2014 at US\$115 a barrel to US\$53 in April 2015, almost to levels of the 2009 recession (*The Economist*, 2014; Bloomberg Business, 2015). The U.S. has increased its energy portfolio by using shale gas as a wildcard in the global energy game to offset geopolitical scenarios and it's challenging the rules by transforming part of the world's energy production and consumption.

As the United States positions itself in the global energy market, it also faces the task of overcoming environmental issues linked to the generation of electricity, energy, and fossil fuels. Since 2008, the Obama administration has increased energy efficiency by adopting an environmental policy to combat climate change. A highly efficient energy policy requires not only economic support, but also a sustainable long-term plan to achieve energy security. "This has been a team effort to make sure that we are doing everything we can to boost the energy efficiency of the American economy" (Obama, 2015). Even though renewable energy sources are still financially inefficient, the combination of conventional and renewable energy sources such as solar and wind, has had an impact on U.S. American environmental policy. In order to achieve ambitious environmental goals, the administration has instituted cutting greenhouse gas emissions 40 percent from the 2008 levels over the next decade and a 30-percent increase of federal renewable energy sources within the next 10 years (Obama, 2015).

Due to the low permeability of the shale rock formation, the extraction of this unconventional gas employs hydraulic fracturing of the rocks, or "fracking," a com-

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