GREAT DECISIONS
1918 • FOREIGN POLICY ASSOCIATION 2014 EDITION

Background guide: Energy independence

Overview

There's no doubt that energy independence is good for American foreign policy. With the bargaining chip of oil dependence taken off the table, U.S. diplomats will have far greater sway in the game of global influence.

The goal of an energy-independent America is ambitious, but it seems more plausible every year. In domestic oil and natural gas industries, production is up and costs are down. Meanwhile solar, wind, geothermal and biofuel technologies are all making huge strides.

But the advances in technology have also created a dilemma for lawmakers. In a government with fixed resources, does the U.S. encourage more traditional fuel production or invest in the young technology of renewable resources?

Fossil fuels vs. Renewables

Widespread renewable energy is no longer a pipedream. Solar, wind, biofuels and other new technologies have all seen costs fall in recent years.

But in the energy race to the bottom, natural gas is ahead by a longshot. Hydraulic fracturing ("fracking") technology has increased supply and driven prices to record lows.

Using a high-pressure mix of water and chemicals to break apart underground shale formations, fracking exposes vast deposits of oil and gas.

But the technology has led to environmental concerns. So as fracking sites continue to grow, advocates are looking to Washington to help make renewables a more competitive option.

An expanded network of so-called "smart grids" would make the switch from natural gas to renewable a painless one, boosting demand for the cleaner technologies. Supporters also hope the government will push new investment by providing tax incentives to renewable energy producers.

Geopolitical and Climate Impact

The recent transformations in energy technology are shaking the foundation of global politics.

New extraction technologies have released so much new energy that the International Energy Agency predicts the U.S. will dominate global energy growth in the next five years.

More domestic production means less dependence on foreign oil—and the nations that control it.

It's an issue of national security, and one that the Department of Defense has been touting for years. At home, the military has played a key role in the development of green technology. Abroad, the Army has said that by 2020, it wants all bases to achieve "net zero"—meaning they produce as much energy as they use.

Policy Options

The fastest road to energy independence is paved with two lanes—searching for new ways to extract fossil fuels while developing renewable energy technology. Both will cost money—and political capital.

The Pew Research Center says that last year investment in renewable energy research totaled $5 billion while military research and development cost $80 billion. They're calling on the government to triple investment in green energy research.

On the other hand, the oil and gas industries are lobbying to approve the Keystone pipeline from Canada and to expand offshore drilling.

But the real selling point for Washington may be votes. Whether it's through fossil fuels or renewable energy, the energy industry will create tens of thousands of new jobs.

Experts

David L Goldwin, *President and Founder of Goldwyn Global Strategies, Senior Fellow at Brookings Institution*

Frank Verrastro, *Director & National Security Program Center for Strategic and International Studies*

Robert McNally, *Founder and President of The Rapidan Group*

Michael Levi, *Senior Fellow for Energy and Environment at Council on Foreign Relations*

Anders Åslund, *Senior Fellow, Peterson Institute for International Economics*

David Pumphrey, *Co-Director and Senior Fellow, Energy and National Security Program*

Carlos Pascual, *Special Envoy and Coordinators for International Energy Affairs*

Daniel Yergin, *U.S. Secretary of Energy Advisory Board, chaired the U.S. Department of Energy's Task Force on Strategic Energy Research and Development*

Quick Facts

Between 2002 and 2012, power generation in the United States grew by 6% but the use of natural gas as a power feedstock grew by 47%.

In 2012, crude oil production in the U.S. grew by 1.16 billion barrels per day, which, combined with biofuels, natural gas and liquids, put total U.S. output on par with Iran, Iraq and Kuwait and above Venezuela.

In his June 2013 speech, President Barack Obama pledged to reduce coal consumption by 17% by 2020 compared to 2005 levels.

Employment in the clean energy sector grew by 12% between 2007 and 2010, adding a total of 70,000 jobs.

Growing output of the U.S. and Canada and tough sanctions on Iranian oil exports to dissuade it from continuing its uranium enrichment projects led its 2012 crude production to be lower since 1989.

Since 2009, the Obama administration has approved 25 utility-scale solar facilities on government lands, utilities which it claims will power 4.4 million homes and create
17,000 jobs.

In order to foster fuel efficiency in transportation, the Obama administration has called for tough fuel-efficiency standards in automobiles, aiming for a 54.5 miles per gallon threshold by 2025.

In addition to production increases, the United States has seen large growth in its oil and gas infrastructure. In 2013, 1.6 million barrels per day in pipeline capacity should be opened.

North Dakota, where the Bakken Shale is based, had an unemployment rate of 3.1% in June 2013 and grew its GDP by 13.4% in 2012.