

America's Changing Energy Choices

By Andrew Holland, senior fellow, American Security Project - 03/05/12 02:13 PM ET

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This week, the American Security Project released the 2012 edition of its annual White Paper, “America’s Energy Choices”. The paper details a range of options for America’s energy future, ranging from coal to natural gas and solar to tidal power. It shows how each contributes to America’s energy make-up and how our business and political leaders should weigh the competing priorities of energy security, economic stability, and environmental sustainability when making decisions.

In preparing the update for this year’s report, it is clear that fundamental changes are underway in America’s energy supply and demand structure. While these changes will take decades to play out, the trends show that the U.S. is moving away from its consumer-oriented energy structure towards an economy that shows an interest in energy production, and even exports.

The proof is in the numbers: America imports around 9 million barrels per day (mbd) of crude oil, a level that has stayed mostly steady since the ’08 financial crisis – well below our peak of 10.6 mbd in the summer of ’06 (all numbers quoted are from the Energy Information Agency). However, since July of 2011, America has become a major net exporter of refined petroleum products, to a peak of 1.1 mbd just this past week.

Two other major factors are changing the supply equation. The first is the continued boom in natural gas from shale, which is pushing down prices and leading to calls to export gas. This has been apparent for about two years, but there is still significant potential for growth. The second is the astounding technological development in biofuels that will allow non-food feedstocks to replace petroleum products as gasoline or jet fuel.

Fundamental changes in American demand for energy are also happening. Oil passed ‘peak oil demand’ sometime around 2006. The agreement finalized last November between the Automakers and the Administration that will double automobile fuel economy standards to 55 MPG combined with structural changes in the U.S. economy will ensure that oil demand doesn’t go back up. Outside of oil, we are seeing electricity demand move away from coal in exchange for natural gas.

However, even though it may feel good to say that we’re on track to be a net exporter of energy, it has not had the benefits we were promised. Our consumers are still stuck paying the global price for oil – set by the whims of speculators and the most recent threat of war in Iran. Our energy supply is still insecure, economically unstable, and environmentally unsustainable.

We need a program to invest in long-term research and development into clean, secure sources of

energy. It must include much-needed investments in energy efficiency, as well as continued development of wind and solar power. However, that will only get us so far: we need an energy source that can provide always-on baseload power without harmful emissions. That research program should focus on next generation nuclear power, including cleaner, safer fission power plants along with a long-term program to develop fusion – the holy grail of energy production. With sustained investment, American leadership in these sectors could create a new global industry.

Unfortunately, the politics of energy remain as fraught and divisive as they were when the report was released then. Clean energy has become an even greater political football than it was last year. The spike in oil prices has brought out the most short-term instincts in politicians. The department of Energy's budget focuses only on short-term energy, while sacrificing long-term research on basic energy science: the areas that will provide real breakthroughs.

America did not create its energy problems overnight; finding solutions to these problems requires concerted, long-term research and development.

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